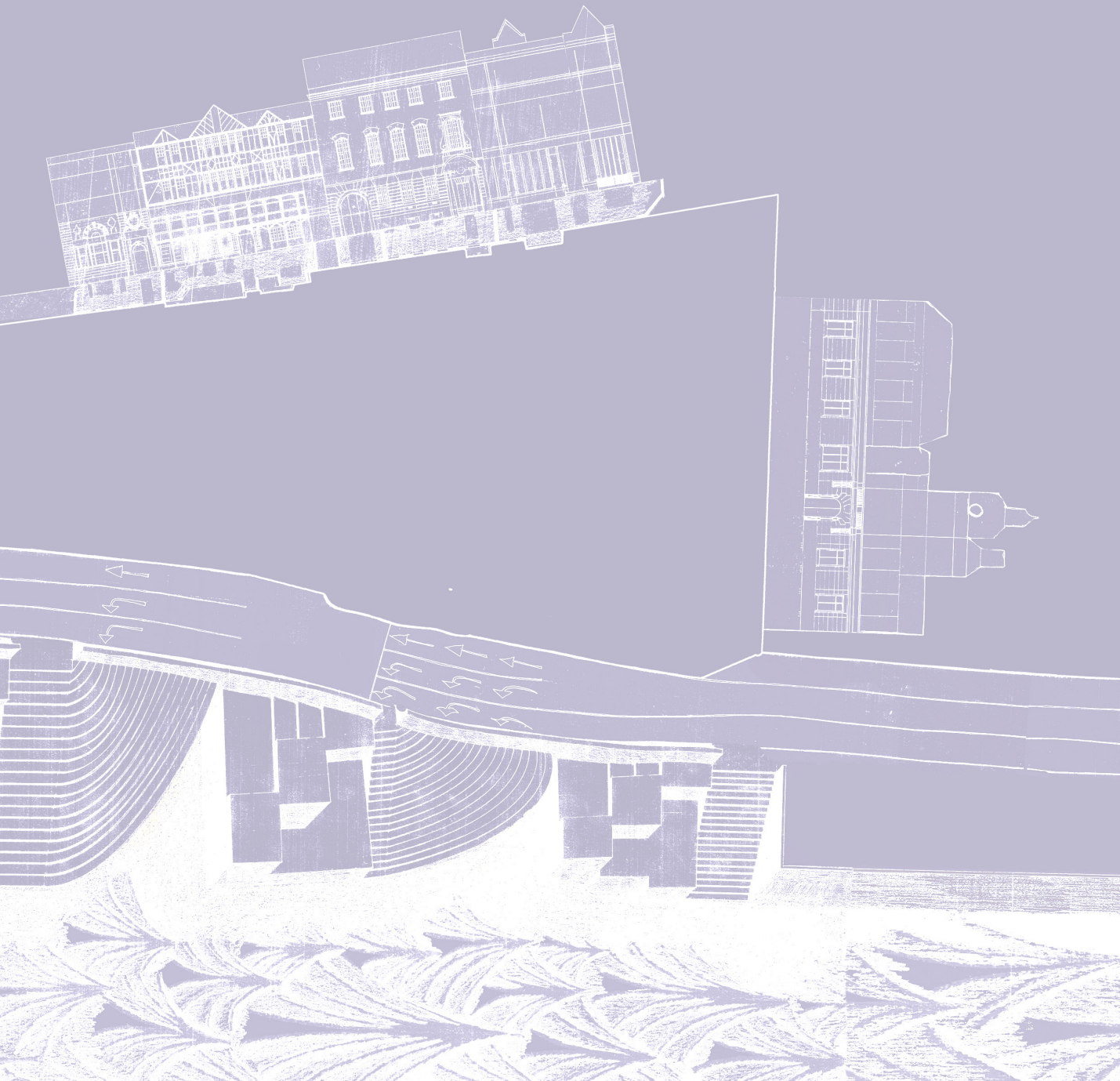


SCROOPE 32

The Quotidian and the Enchanted



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The Quotidian and the Enchanted

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Foreword

Flora Samuel

Soon after I was invited to write this foreword the universe (in the form of the sage custodians of the magical library in the Department of Architecture at the University of Cambridge) sent me Louise Kehoe's luminous account of her father, the Modernist architect, Berthold Lubetkin in her book *In This Dark House*. It seems to me to summarise architectural tensions around the nature of knowing that permeate architecture culture to this day:

Dad was a rationalist through and through. He loathed religion: to him it was not only the opium of the people, it was hemlock, cyanide for the intellect. He had nothing but contempt, either, for anything that smacked of mysticism, from old wives' tales and superstitions to my childish fascination with ghosts and my consequent fear of the dark, from the brooding romanticism of certain nineteenth century art and literature to the menacing gargoyles and prickly complexity of Gothic architecture. He believed that human reason was an irresistible force; that science would unmask every secret, cure every ill, and that human beings, by virtue of their rationality, were superior to all other forms of life. These were not simply elements of general philosophy, they were credenda, and he clung to them fiercely and proclaimed them with a passion that was anything but rational.¹

For Kehoe Lubetkin, animal houses – for example the famous penguin pool at London Zoo – made animals into 'clowns and performers in spite of themselves' by contrasting them with the purity of geometric white concrete. Inherent within this is a dualistic way of thinking. We see this thinking in the early works of Le Corbusier, an architect who clearly had some kind of epiphany in his thirties, spending the latter years of his

¹ Louise Kehoe, *In This Dark House* (London: Penguin Books, 1997), p. 38.

career wrestling with its impossibility, and embracing his inner voice as the foundation of his creative process through painting. Le Corbusier knew the inherent flimsiness of scientific knowledge, and that within this mix was the repression of knowledges gendered feminine and or 'primitive'.²

Early 'modern' thinking, exemplified by Newton and others, despite stemming from the tradition of alchemy, manifested itself in the persecution of witches in the sixteenth and seventeenth centuries – nearly all women of course. Such thinking also led to the professionalisation of medicine and architecture, and the imposition of gender restrictions on practice, outlawing women's engagement in these fields and resulting in the loss of millennia of carefully nested knowledges of our bodies and of the land. I feel keenly the knowledge that I too would have been drowned as a witch if I had had the misfortune to live a few centuries earlier, or perhaps I was. Enchanted thinking cuts across time connecting us with generations past and future in a web of mutual love.

When as a student of architecture I learnt of the mythopoetic preclassical world in which stones were believed to be sentient and relational, it put a name to what I had always felt, a profound longing for an enchanted world, an oceanic feeling of oneness that has been given many names and has never been more important than at this time of environmental catastrophe.

That the word 'enchantment' could appear in a title of *Scroope* tells me just how much the world has changed since I was a student at Cambridge contributing to its very first edition. Perhaps finally the architectural thought police are losing their grip on what we can speak of in our work. I see this as a product of the profession finally, with aching slowness,

² Flora Samuel, *Le Corbusier: Architect and Feminist* (London: Wiley Academy, 2004).

becoming more diverse. It feels like a shift in the zeitgeist, with studios in architecture schools starting to embrace considerations of myth and legend in their briefs. I would argue that, as a form of resistance to the homogenising influences of our neo liberal times, the starting point of any architectural project, should be the myths and legends of its place hidden in the names of places and the folds of land – an idea that is central to the work of Sharon Blackie³ and many of those nature writers that call upon the past, our collective unconscious and its archetypes, in their work.

Celtic mythology is the starting point of a large 'Green Transitions Ecosystem' research project I am leading – the Public Map Platform – based on the Isle of Anglesey, Yns Môn in North Wales. Despite its utilitarian name, our project is in the tradition of the Mabinogion, the Welsh book of myths and legends gathered together in medieval times but passed down through generations of oral traditions. The places in the Mabinogion are still very much there – this summer I myself swam in the waterfall reputed to be the entrance to the fairy world, for me part of a ritual physical and mental preparation to wear the venerable mantle of the Head of the Department of Architecture in Cambridge, a role that sought me. In Wales the connection with the past is alive and growing, tied up with the resurgence of Welsh language and a respect for the culture of the hedgerow. We, including a troupe of bards, are going to be capturing stories of place, lament climate change through songs and poetry, and manifest visions of a better world as a form of community consultation for planning. Throughout this process, these 'intangible' knowledges will be collected up and coded into data through AI. In this way we hope to be able to make them visible to policy makers, accountable in the spreadsheets that govern our tragically meagre, audit driven man-made systems that govern the ways in which decisions are made. I don't see it as an either-or thing myself, but instead about new ways of valorising different kinds of knowledges. As research shows, the best form of wellbeing is 'eudaimonic', reliant on a sense of purpose beyond the self.⁴ In an era of ecological and mental breakdown, so lacking in hope we have to focus on positive action, these are the things that bind us together for collective good, white magic if you will.

³ Sharon Blackie, *The Enchanted Life: Unlocking the Magic of the Everyday* (September, 2018).

⁴ Flora Samuel, *Housing for Hope and Wellbeing* (London: Routledge, 2023).



Theo Truss,
Architecture and
History of Art
Faculty Library
in Scroope
Terrace, oil on
canvas, 400mm
x 500mm.

Editorial

The Quotidian and the Enchanted

Fatma Mhmood and Heather Mitcheltree
Editors in Chief

As we write this introduction, another extension for a humanitarian ceasefire in the Gaza Strip is under negotiation, scientists have created tiny robots from human cells (anthrobots) that are able to move around inside petri-dishes – offering hope that this new technology may one day be able to potentially help heal wounds, leaders at COP28 continue to discuss climate justice initiatives, solar flares picked up by the U.S. Space Weather Prediction Center indicate that the Aurora Borealis may be visible in the northern US tonight, deforestation continues at an estimated 10 million hectares per year¹, in the search for less carbon intensive construction materials Portland's new airport terminal is being built using CLT timbers locally sourced from Oregon landowners and Tribal nations, and the war between Russia and Ukraine continues. Still reeling from the aftermath of COVID-19, and watching as conflicts continue to rage, we felt that we needed to provide space for authors to explore the complexity of our times, whilst still opening space for joy, wonder, play, curiosity, and hope. Space in which to both celebrate and critique the quotidian and the enchanted. As Rebecca Solnit puts it:

Grounds for hope lie in the records and recollections of the past. We can tell of a past that was nothing but defeats and cruelties and injustices, or of a past that was some lovely golden age now irretrievably lost, or we can tell a more complicated and accurate story, one that has room for the best and worst, for atrocities and liberations, for grief and jubilation.²

¹ Hannah Ritchie, 'Deforestation and Forest Loss', *Our World in Data*, 2021 <<https://ourworldindata.org/deforestation>>

² Rebecca Solnit, *Hope in the Dark: Untold Histories, Wild Possibilities* (Edinburgh: Canongate, 2016), p. xix.

So, we put out the call.

In setting the theme of 'The Quotidian and the Enchanted', we hoped to build an interdisciplinary conversation on the politics of the spaces that we inhabit, the ways in which identity is constructed, projected, and framed, and the pathways by which we navigate a world that is often disorienting and alienating.

It was an open call for works, of any type, that explore and challenge the forms, spaces, environments, landscapes, and constructs that we create - an invitation for practitioners to challenge socio-spatial representations of mythscapes, and the creation and reproduction of forms of identity, inequality, gender, ideologies, and meaning within the built environment.

It seems that the call struck a chord...

The articles in this issue make poetry of the everyday, reinterpret creative praxis, critique urban socio-spatial relations, make visible imagined and obscure spaces, and creatively reimagine the world around us. The authors brought an array of responses that explore and challenge the forms, spaces, environments, landscapes, and constructs that we create, as well as the roles that they play. The diversity of responses that we received, the range of approaches, and the unique lenses that each author brings to the quotidian and the enchanted exceeded our expectations.

We begin this issue with our relationship with the cosmos to critically observe and attune ourselves to the world around us. Adam Walls writes on the nineteenth-century process by which celestial imagery and metaphors were used to enchant London's new nocturnal lightscape. In refusing utopian or dystopian futures, Alex Brown and Charity Edwards present multiple mystical readings of Superstudio's *Le dodici città ideali (Twelve Ideal Cities)* through an annotated visual exposition. Agostino Nickl turns the focus to everyday objects in exploring modes of existence, where he enacts enchantments of everyday things through machine learning models working with hundreds of three-dimensional scans and thousands of poems.

The second set of articles engages with the capacity of photography to turn the mundane into the enchanted. Through a critical reading of Carlo Mollino's photographs, Gerlinde Verhaeghe reveals a 'not so innocent enchantment' within the artist's studio, where a private room becomes a space of male self-representation. Laura Darlington explores the mystical aspects of photography as a catalyst in conjuring change and altering reality into one imbued with hope and optimism.

We then extend the inquiry on navigating and representing the world in an interview with Gillian Rose. The interview discusses the ways in which emerging technologies impact our agency in comprehending socio-spatial relations embedded within the urban fabric as well as modes of knowledge production on everyday spaces. In the subsequent set of articles by Ecaterina Stefanescu, Leo Xian and Joshua Guinness, we see a variety of

research methods and representation strategies employed in studying domestic spaces, ranging from ethnographic modelmaking, sketches, and analytical drawings to LiDAR scanning.

François Penz furthers the conversation by directing our focus to the use of film as a medium in composing nuanced visual narratives of our cities and environments. Robert Gerard Pietrusko writes about his on-going audio-visual piece that documents ecological temporality through sacred pilgrimages over several years.

In the last two articles, Heidi Svenningsen Kajita uncovers how archived complaint lists and letters are imaginaries about broader societal conditions, and Stephen Ajadi examines the socio-spatial phenomenology of the African market. Finally, we end this issue with reflections on landscape and human nature in a poem by Marine de Dardel.

Adam Walls

An Astral World: Lighting Imperial London

Orientation generally takes place in relation to light, whether it be to the rising sun in the east, the polestar in the north, or shifting constellations across the night sky. Within modern cities, this orientational role has been brought down to earth and situated within artificial suns, moons and stars – in the form of mundane gas and electric lamps – which effectively severed our connection with the night sky. This is what Walter Benjamin called the ‘transformation of the city into an astral world’.¹ In nineteenth-century London, this new lightscape oriented subjects not only spatially and temporally, but ideologically as well, in a manner conducive to capitalism, imperialism, as well as the ‘normal’ liberal subject or ‘Man’.

Histories of lighting have so far tended to focus on the disenchanting or spectacular forces of capital and liberalism. Where imperialism is discussed, it is treated as something which happened ‘over there’, as separate from the metropole; while discussions of subjective difference are limited to class and gender.² However, as decolonial writers have long argued, imperialism and race are foundational to liberal metropolitan modernities. This article attempts to sketch out a decolonial and critical whiteness response to earlier Foucauldian approaches to lighting and the modern British city, particularly by Patrick Joyce and Chris Otter.³ It does so by drawing out a nineteenth-century process by which celestial imagery and metaphors were used to enchant London’s new public lighting infrastructures; in the process aggrandising and centralising the metropole as a ‘peak’ of civilised development, as well as underpinning white racial supremacy. This technological shift was therefore part of a wider ontological shift through which metropolitan lifeworlds were delinked from the heavens, and Man and his technologies imbued with an almost supernatural agency.

¹ Walter Benjamin, *The Arcades Project*, trans. by Howard Eiland and Kevin McLaughlin (Cambridge, MA: Harvard University Press, 2002), p. 422 M3,7. See also: Esther Leslie, ‘Stars, Phosphor and Chemical Colours: Extraterrestriality in The Arcades’, *New Formations*, 54.1 (2004), pp. 13–27.

² Significant exceptions include: Lynda Nead, *Victorian Babylon: People, Streets and Images in Nineteenth-Century London* (New Haven: Yale University Press, 2000); Ernest Freeberg, *The Age of Edison: Electric Light and the Invention of Modern America* (London: Penguin Books, 2014); Kate Flint, *Flash!: Photography, Writing, & Surprising Illumination* (Oxford: Oxford University Press, 2017); Karen Sayer, ‘Atkinson Grimshaw, Reflections on the Thames (1880): Explorations in the Cultural History of Light and Illumination’, *Annali di Ca’ Foscari. Serie Occidentale*, 51.1 (2017), pp. 129–47; Ute Hasenöhr, ‘Rural Electrification in the British Empire’, *History of Retailing and Consumption*, 4.1 (2018), pp. 10–27; and Héléne Valance, *Nocturne: Night in American Art, 1890–1917*, trans. by Jane Marie Todd (New Haven: Yale University Press, 2018).

³ Patrick Joyce, *The Rule of Freedom: Liberalism and the Modern City* (London: Verso, 2003); Chris Otter, *The Victorian Eye: A Political History of Light and Vision in Britain, 1800–1910* (Chicago: University of Chicago Press, 2008).

Figure 1.

R. Spencer, 'The Triumph of Gas Light | "[...] will very soon | eclipse the moon | and when that's done | put out the sun"', 19 April 1810. Engraving, London (© The Board of Trustees of the Science Museum).



In her seminal genealogy of what she calls 'our present ethnoclass (i.e., Western bourgeois) conception of the human, Man', Sylvia Wynter describes how each successive society up until the Copernican Revolution mapped their 'moral/political laws' onto the heavens: 'on their stable periodicities and regular recurring movements'.⁴ This 'ethno-astronomy' rendered symbolic structures as if irrefutable, objective facts, thereby naturalising and stabilising divisions of labour and human difference. In ancient Greece, for instance – residues of which still structure our modern European world – a projected set of value and ontological distinctions between a perfect heaven and imperfect earth served to 'analogically replicate and absolutize' the central human distinctions between master-citizens and slaves, as well as male-citizens and women.

⁴ Sylvia Wynter, 'Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Overrepresentation—An Argument', *CR: The New Centennial Review*, 3.3 (2003), pp. 257–337.

With modernity/coloniality, Wynter argues that these ordering principles were no longer mapped onto the cosmos, but onto natural bodily differences instead, particularly imagined hierarchies of 'race'. The argument here, however, is that this wider cosmological mapping and legitimation of difference did not cease with modernity/coloniality, but was simply transferred onto the built environments, lifeworlds and technologies which acted as prosthetic extensions of race, or as a form of 'racial atmosphere', to outwardly naturalise and legitimise colonialism, as well as tacitly orient modern life.⁵ In particular, the uneven distribution and dissemination of lighting was used to render concrete what Frantz Fanon calls the 'Manichaeism' of empire – after the ancient Persian religion's stark cosmology of absolute good and evil, light and dark, symbolic life and death.⁶ In this 'colonial construction of Being', the white ethnoclass Man and his technological worlds were equated with rationality, enlightenment and spirit, and transcend the bounds of a disenchanting nature; the Others of Man are 'eclipsed', benighted and enslaved to irrational bodily drives. This 'Promethean' striving for transcendence is not a universal property of technology, however, but a provincial and environmentally disastrous property of what Yuk Hui calls Europe's 'cosmotronics', which was exported globally through colonialism.⁷

This article traces these shifts through a series of engravings, as well as a well-known essay by Robert Louis Stevenson, 'A Plea for Gas Lamps' – a primary influence for Benjamin's 'astral world'.⁸ These examples have been elaborated elsewhere as part of a larger research project.⁹ Besides Wynter, Fanon and Benjamin, I draw on Richard Dyer, Sara Ahmed and Jane Bennett as a means of rendering the whiteness, orientation and racialised enchantment of London's lighting infrastructures visible.¹⁰

⁵ Renisa Mawani, 'Atmospheric Pressures: On Race and Affect' (unpublished essay cited with author's permission, n.d.); Christina Sharpe, *In the Wake: On Blackness and Being* (Durham: Duke University Press, 2016). For further geographic applications of Wynter, see: Katherine McKittrick, *Demonic Grounds: Black Women and the Cartographies of Struggle* (Minneapolis: University of Minnesota Press, 2006); Kathryn Yusoff, *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press, 2019).

⁶ Frantz Fanon, *Black Skin, White Masks*, trans. by Richard Philcox (New York: Grove Press, 2008), p. 160.

⁷ Yuk Hui, *The Question Concerning Technology in China: An Essay in Cosmotronics* (Falmouth: Urbanomic, 2016), pp. 7–18. Also, Nigel Clark and Kathryn Yusoff, 'Combustion and Society: A Fire-Centred History of Energy Use', *Theory, Culture & Society* (2014), pp. 203–26.

⁸ Robert Louis Stevenson, *Virginibus Puerisque: and Later Essays*. (London: T. Nelson & Sons, 1925), pp. 275–82. From here on, page numbers are indicated parenthetically in the text.

⁹ Adam Walls, 'Twilight Spaces: Firelight, Racial Atmosphere and Imperial London' (unpublished thesis, University College London, 2022).

¹⁰ Richard Dyer, *White* (London: Routledge, 2017); Sara Ahmed, *Queer Phenomenology: Orientations, Objects, Others* (Durham, NC: Duke University Press, 2006), and 'A Phenomenology of Whiteness', *Feminist Theory*, 8.2 (2007), pp. 149–68; Jane Bennett, *The Enchantment of Modern Life: Attachments, Crossings, and Ethics* (Princeton: Princeton University Press, 2001), and *Vibrant Matter: A Political Ecology of Things* (Durham, NC: Duke University Press, 2010).

Stand-hards

From their joint origins in the late eighteenth century in Britain, gas and electric lighting were entangled in processes of empire.¹¹ Napoleonic trade blocks drove up the price of whale oil and spermaceti, providing impetus for the discovery of alternative, local sources of fuel – particularly coal. Though electricity would not become practical until the mid-century, gaslight made its public debut outside James Watt and Matthew Boulton's Soho Works in Birmingham in 1802 to commemorate the Peace of Amiens, a brief hiatus with France when trade and colonial territories were renegotiated. An eyewitness described the 'luminous spectacle' as of 'extraordinary splendour'. Boulton and Watt, inventors of the infamous steam engine, were also hailed as 'liberal and enlightened proprietors'.¹² What is generally unacknowledged is that Watt derived much of his personal wealth from transatlantic slavery.¹³ This was a major context for gas technology's early development, as was the wider plantation economy, with cotton mills being some of the first buildings to install piped gas from 1805. Gaslight was therefore both a consequence of colonial competition and accumulation, and a means by which the night itself was colonised for further productive labour.¹⁴

As a mode of streetlighting, gaslight also transformed urban space in a manner conducive to capitalism and imperialism. Humphry Davy, the incumbent professor at the Royal Institution and discoverer of both 'arc' and incandescent forms of electric light, quipped it would be easier to bring down 'slices of the moon' than to light London by gas.¹⁵ However, against all the odds, in 1810 the London and Westminster Chartered Gas Light and Coke Company (GLCC) gained permission to build the world's first subterranean gas network. An etching by R. Spencer, 'The Triumph of Gaslight', captures this moment well (fig. 1). Gaslight is 'eclipsing' both the sun and moon, and emits a sublime, white light in clear, defined beams. The lamppost itself grows out of a floating landscape, as if staking out territory in the colonisation of the night: this infers both the domination of nature and presents the new, cast-iron standard as triumphant, its design most likely the product of an ironworks engineer.¹⁶

¹¹ It is important to note that natural flammable gas had long been in use in Szechuan for lighting and heating; it was by no means solely a British or even French invention. For more on Chinese technology, see Hui.

¹² William Matthews, *An Historical Sketch of the Origin, Progress and Present State of Gas-Lighting* (London, 1827), pp. vi, 21–23.

¹³ Stephen Mullen, 'The Rise of James Watt: Enlightenment, Commerce, and Industry in a British Atlantic Merchant City, 1736–74', in *James Watt (1736–1819)*, ed. by Malcolm Dick and Caroline Archer-Parré (Liverpool: Liverpool University Press, 2020), pp. 39–60.

¹⁴ Murray Melbin, *Night as Frontier: Colonizing the World after Dark* (London: Collier Macmillan, 1987).

¹⁵ 'Electric Lighting in the City', *Graphic*, 9 April 1881, p. 342.

¹⁶ For a more detailed account of this period see the forthcoming work of Stephannie Fell Contreras.

This method of positioning lamps on columns or standards was only widely adopted with the rollout of gas. Before the late seventeenth century, private households and institutions were required to light the street immediately outside their properties. The first attempts at collective lighting then used oil lamps fixed directly onto external walls using brackets.¹⁷ In locations without walls, posts were either wooden or of a more elaborate wrought-iron design, typically built into the railings of private residences or institutions such as Somerset House. There is evidence of stone obelisk lamps as well, reserved for special locations, such as outside Westminster Abbey.¹⁸ However, in mediating directly between subterranean pipes and the user, gas standards totally detached the provision of public lighting from private property. They also gave a rudimentary order and orientation to public life.

Joyce and Otter argue that this transition was part of a broader shift towards what Foucault calls 'liberal governmentality' – broadly understood as a rationality or 'mentality' of governance.¹⁹ Following on from 'police' forms of governmentality, which operated primarily through coercion, liberal governmentality aimed at governing via freedom and consent. Joyce describes this as a kind of paradox: as the 'absence of restraint as a form of restraint'.²⁰ Government was to provide only the necessary essentials to enable its subjects and institutions to become independent, healthy and productive. In the process, it shaped the conditions of possibility of city life – a form of productive power which Foucault calls 'biopower'. Architecture and infrastructure played a key role here, tacitly ordering the conduct of their users.²¹ Starting around the 1830s in Britain, though with roots stretching back to the eighteenth century, this encompassed processes as varied as: the shift towards free trade; the rise of consumer capitalism; individualism; the expansion of democracy; the consolidation of municipal government and large infrastructure projects; the rise of public health and sanitation; modern policing; the free press; and an increasingly statistical and cartographic knowledge of population and territory. All these processes constituted what Joyce calls a 'liberal subject', as well as new forms of public and private space.

¹⁷ E. S. De Beer, 'The Early History of London Street-Lighting', *History*, 25.100 (1941), pp. 311–24.

¹⁸ Obelisks are another major and related theme in my PhD work, revealing the Afroasiatic and enchanted roots of early lamppost design.

¹⁹ Michel Foucault, 'The Birth of Biopolitics' and 'Governmentality', in *The Essential Foucault, 1954–1984*, ed. by Paul Rabinow and Nikolas S. Rose (New York: New Press, 2003), pp. 202–07 and 229–45.

²⁰ Joyce, p. 1.

²¹ Also, Sven-Olov Wallenstein, *Biopolitics and the Emergence of Modern Architecture* (New York: Princeton Architectural Press, 2009).

Figure 2.

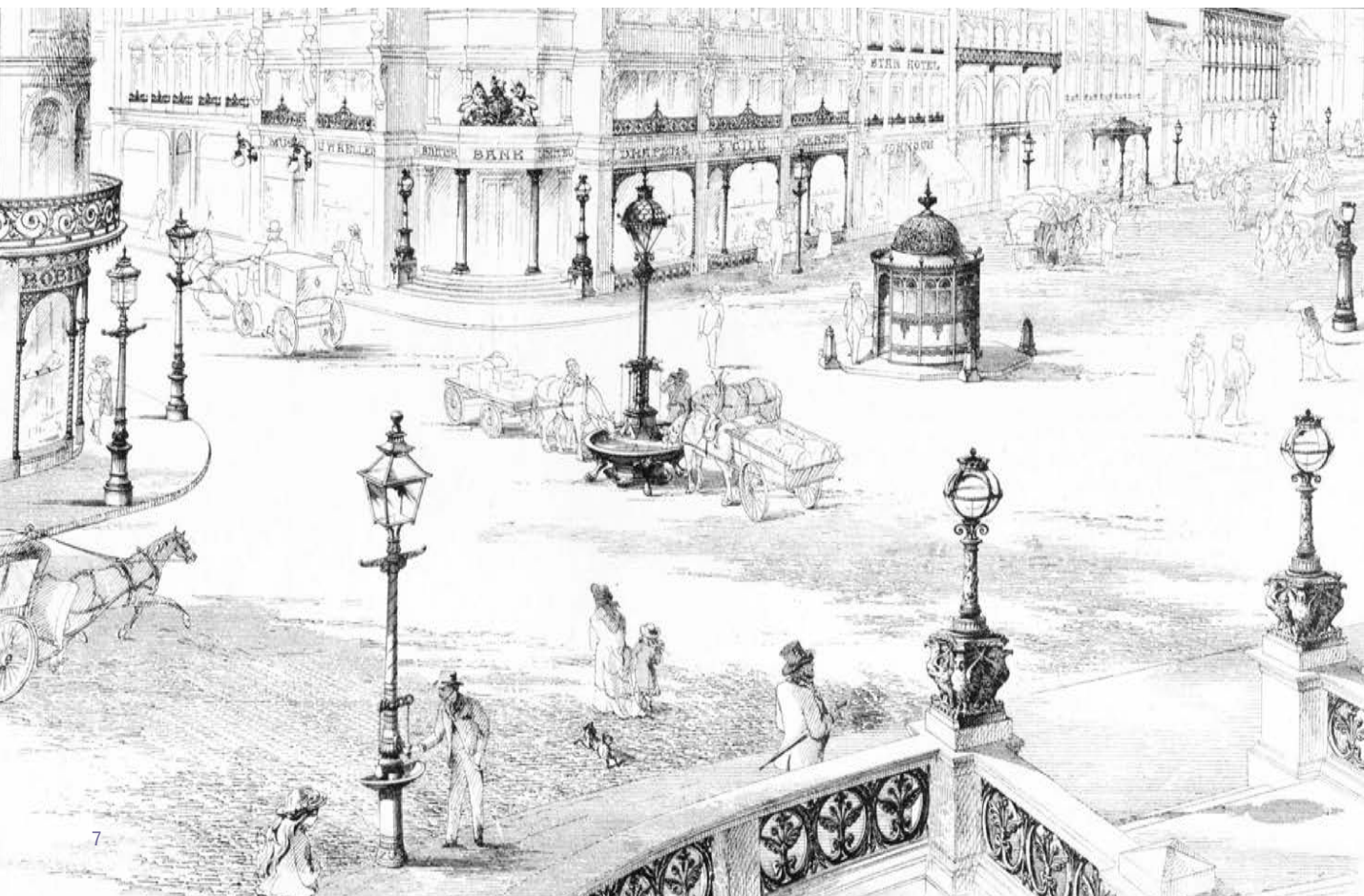
'Perspective View of Central Thoroughfare With Examples of Architectural and Sanitary Castings'. Woodcut frontispiece to Walter MacFarlane & Co.'s *Catalogue of MacFarlane's Castings*, 1882, vol. 2 (By permission of the British Library).

By brightening the streets at night, lighting provided the material basis not only for free movement and security, but for a particular kind of 'liberal sensorium' as well, one which privileged sight, silence and distance over tactile immersion, sound and smell – the latter deemed significantly more dangerous and unsanitary.²² Yet lighting was just one technology among many, including sewers, that were necessary to engineer this 'salience of the visual' into urban space. A healthy city was one which secured the free circulation of people, resources, information and capital through mains, drains and lighting – all of which rendered public space more transparent and amenable to capitalism. An unhealthy city was one where passages remained blocked, stagnant and dark.

These shifts involved the dispersion of agency throughout technological networks: from being the subject in control of technology, man became subject to technology; or, as Joyce puts it, 'One was lit but did not light'.²³ For Otter, the goal for liberal illumination was to act as a 'tacit', 'subconscious'

²² Otter, p. 22–23 and 54–61. See also Nead, *Victorian Babylon*, pp. 13–14.

²³ Joyce, p. 110.



or 'unobtrusive frame or background to our existence'.²⁴ In this capacity it contributed to both the disciplining and freeing up of urban subjects: by ceding agency to infrastructure, one might receive a higher quality service and become free to pursue other productive activities. In the process, the 'liberal subject' came increasingly to depend on and be shaped by those infrastructures.

The technological worlds which resulted were 'liberal' to the extent that they promoted, and successfully naturalised, mutual inspection, privacy, sanitation, individuation and self-control. Yet those who did not comply with standards or norms were not simply brought into line using civil, gentlemanly means: they were disciplined using coercive power, particularly that wielded through public health legislation and the police.²⁵ After all, modern policing also came into force alongside gaslighting in the 1820s. If liberty meant the freedom to move, therefore, this came with the provision that one complied with and embodied the codes of civilised conduct and order – that one wasn't perceived as a contaminant threat – otherwise one's mobility and liberty would be restricted. Needless to say, some subjects embodied these standards more readily than others. 'Normal' liberal subjects – generally white, male, bourgeois, heterosexual and able-bodied – moved with ease; the 'others of freedom', as Joyce calls them, were regularly disrupted and rendered immobile.²⁶ This 'liberal' world was bourgeois, patriarchal and white.

This order found its most visible expression in new, cast-iron pieces of street furniture. Aesthetics were integral to the functioning of these pieces of design, as is well illustrated in Walter MacFarlane's 1882 'architectural and sanitary castings' catalogue (fig. 2), where highly mechanised, regularly spaced and mass-produced elements are simultaneously styled in neoclassical or gothic ornament.²⁷ As Joyce reminds us, the free circulation this infrastructure enabled did not always evoke confidence or security.²⁸ In fact, the individualism, anonymity and mixing of classes it entailed were often experienced as threatening and chaotic. Ornamentation was a means of assuaging those fears by cloaking the modern in a veneer of historic

²⁴ Otter, pp. 250–54. See also Don Ihde on 'background technologies', *Technology and the Lifeworld: From Garden to Earth* (Bloomington: Indiana University Press, 1990), pp. 108–12.

²⁵ This point becomes particularly important in feminist accounts of infrastructure and the modern city, such as Barbara Penner, *Bathroom* (London: Reaktion Books, 2013), p. 79.

²⁶ Joyce, p. 8; Ahmed, 'A Phenomenology of Whiteness'.

²⁷ Penner, p. 79. See also: Paul Dobraszczyk, *Iron, Ornament and Architecture in Victorian Britain: Myth and Modernity, Excess and Enchantment* (Burlington, VT: Ashgate, 2014).

²⁸ Joyce, p. 144–82.

beauty, meaning and authority. Such practices comprised another, symbolic and affective form of infrastructure – one which ‘constitut[ed] the city as a liberal monument’.²⁹ This interpellated moral citizen-subjects just as other, utilitarian dimensions of infrastructure constituted mobile, hygienic individuals.

Nevertheless, while this period saw the rise of liberalism ‘at home’, it also saw the expansion and consolidation of Britain’s hegemony and empire abroad. Metropolitan building projects were not solely intended to ‘improve’ urban space for liberal ends; they simultaneously produced London as an appropriately grand and advanced capital of empire. Aesthetics were integral to these processes as well. If neoclassicism evoked the grandeur and stability of imperial Rome, the neogothic was associated with a Christian and specifically English form of ‘civilisation’.³⁰ With the emergence of architectural historicism in the early nineteenth century, a new model of linear and progressive time served to position these ‘revivals’ at the top of a hierarchical succession of periods and styles – as infamously captured in Bannister Fletcher’s 1905 ‘Tree of Architecture’.³¹ Architectural styles were therefore used, in conjunction with technology, to position Britain at the peak of developmental time – a position Britain then used to justify its ‘civilising mission’ abroad.³²

It is useful in this context to consider the etymology of ‘standard’ as ‘something conspicuously erected’ or ‘stand-hard’.³³ The term was first applied to lampposts during this period and was adopted directly from the military and naval use of flagpoles – a signalling practice often coupled with lighting at night. Far from solely functioning in the background of experience, therefore, this suggests an expression of national and imperial identity as well – a ‘conspicuous’ staking out of territory in the night. The journalist Henry Mayhew would even later figure gas flames as tiny flags.³⁴

²⁹ Ibid., p. 150.

³⁰ Joyce, pp. 158–60 and 254–55. See also: Gavin Rand, ‘Same Difference? Liberalism, Modernity, and Governance in the Indian Empire’, in *Peculiarities of Liberal Modernity in Imperial Britain*, ed. by Simon Gunn and James Vernon (Oakland: University of California Press, 2011), pp. 134–46.

³¹ Irene Cheng, Charles L. Davis, and Mabel O. Wilson, eds., *Race and Modern Architecture: A Critical History from the Enlightenment to the Present* (Pittsburgh: University of Pittsburgh Press, 2020), pp. 5–9. Timothy Mitchell and Tony Bennett have done most to integrate Benjamin and Foucault with the wider context of imperialism. See: Timothy Mitchell, *Colonising Egypt* (Berkeley: University of California Press, 1991); Tony Bennett, *The Birth of the Museum: History, Theory, Politics* (London: Routledge, 1995).

³² Michael Adas, *Machines as the Measure of Men: Science, Technology, and Ideologies of Western Dominance* (Ithaca: Cornell University Press, 1989).

³³ OED.

³⁴ Quoted in Hugh Barty-King, *New Flame: How Gas Changed the Commercial, Domestic and Industrial Life of Britain between 1813 and 1984* (Tavistock: Graphmitre Ltd, 1984), n.p.



Figure 3.

Alchemist diagram of Rebis, or dual matter, a unification of matter and spirit. Woodcut illustration from Herbrandt Jamsthaler’s *Viatorium spagyricum*, 1625, p. 75 (© The Board of Trustees of the Science Museum).

In each these ways, lighting standards worked as ‘orientation devices’ to gather and direct communities and spaces of various scales, from the local and urban, to the national and imperial.³⁵ They stand-hard and hold the liberal/imperial world in place, as well as time. They also constituted a new form of liberal/imperial subject, or Man, who was gradually taking shape in relation to racial whiteness at the time.

³⁵ Ahmed, *Queer Phenomenology*.

White Light

In a more esoteric reading, Spencer's etching appears to be referencing a particular genre of alchemical diagram, specifically in its sun and moon symbols and composition (fig. 3). Pneumatic chemistry had only recently developed out from alchemy during the Scientific Revolution. While alchemy's practical influence on chemistry is clear – the gas-maker's retort is a direct descendent of the alchemist's enclosed crucible – its broader cultural influences were just as significant.³⁶ See figure 3, which maps a mysterious field of celestial and terrestrial influences which the sixteenth-century alchemist Paracelsus considered active in the distillation of coal. The resulting exhalations, not yet conceptualised as 'gas', were considered a form of enchanted materiality – '*spiritus silvestris*' or 'incoercible spirit' – imbued with the divine agency of God.³⁷

This Christian mode of enchantment was by no means a majority view in its time. It has nevertheless retroactively become central to the imagining of 'disenchanted' secular modernities. Signifying a shift in ontology, instead of astrological action at a distance, Spencer's sun and moon are rendered ineffectual, overcast and replaced by gaslight. These details are prescient: bright lighting and fossil fuels have certainly impaired our visual link with the heavens; while scientific rationality has partially replaced magical thinking as well. Yet Spencer's image is not entirely disenchanted, nor stripped of all mystery and spirituality. In place of an alchemical tree or 'hermaphrodite', the embodiment of the unification of spirit and matter, the lamppost looms large, almost in anthropomorphic form – replete with triangular hat and stick-arms (rests for a lamplighter's ladder). All mysterious agency is transferred onto this seemingly benign piece of street furniture, as well as the atmosphere it produces. The standard itself, in a form of reverse photosynthesis, becomes the channel, or *axis mundi*, through which matter is transformed into spirit: dirty, black rock transformed into gas, fire and, eventually, light. With this, the ground of Spencer's lamp appears as if a vast lump of coal – complemented by a luminous, nebulous whiteness produced by an overhead trinity of flames. Agency has been stripped from the cosmos, God and matter, and imbued within Man and his technologies.

³⁶ Bernadette Bensaude-Vincent and Isabelle Stengers, *A History of Chemistry*, trans. by Deborah van Dam (Cambridge, MA; Harvard University Press, 1996); Leslie Tomory, 'The Origins of Gaslight Technology in Eighteenth-Century Pneumatic Chemistry', *Annals of Science*, 66.4 (2009), pp. 473–96; Steven Connor, *The Matter of Air: Science and Art of the Ethereal* (London: Reaktion Books, 2010).

³⁷ Bennett, *The Enchantment of Modern Life*, pp. 33–55.

In Spencer's image, therefore, connection with the cosmos gives way to an absolute binary opposition between heaven and earth, blackness and whiteness, inert matter and active spirit. This is the imaginary – and in its own ways magical – racial order which Fanon describes as 'Manichaeism'. As whiteness becomes idealised and associated with spirit, blackness is 'eclipsed', violently overshadowed and reduced to its base materiality.³⁸ There is no direct reference to race here; whiteness works as an implicit, taken-for-granted norm, with light equated with the white ground of paper beneath. Etchings work through crude contrasts of black on white in this way. Yet whiteness had not yet emerged in Britain as the racial category we experience it today: this was a development of the 1860s onwards.³⁹ It was nevertheless already functioning as the abstract ideal upon which white racial imaginaries would later be constructed.⁴⁰ Here we touch upon the most literal dimension of lighting's whiteness: the perceived whiteness of light itself.

White light had been valued since at least Isaac Newton's *Opticks* (1704) as the 'purest' form of light, as that which contains all colours and wavelengths in combination. However, following Goethe's more phenomenological investigations in *Theory of Colour* (1810), whiteness was also conceived to be an unstable product of perception.⁴¹ Though spectroscopy was making colour measurement more objective at the time, this made little difference within human experience. Illuminating engineers have come to understand whiteness instead as a relative effect of chromatic norms: the eye adjusts heuristically to whatever light is most available at the time.⁴² Whiteness, therefore, as we experience it, has no fixed referent. The norms of daytime, often taken as primary, are completely different to those at night, just as midday differs from twilight.

Successive technologies stretching back to the Argand lamp were each heralded 'as white as the sun' only to appear yellow in comparison with the next. Early gaslight, for instance, was almost always experienced as white and regularly compared with daylight. Parish oil lamps by comparison were 'yellow' and 'glimmering'. However, only as recently as 1782, they too had

³⁸ Fanon, p. 147; Yusoff.

³⁹ Dyer, p. 19; Catherine Hall, 'Rethinking Imperial Histories: The Reform Act of 1867', *New Left Review*, 208 (1994), pp. 3–29.

⁴⁰ Mark Wigley, 'Chronic Whiteness', *e-flux* (2020).

⁴¹ Alice Barnaby, *Light Touches: Cultural Practices of Illumination, 1800–1900* (New York: Routledge, 2017), pp. 23–45.

⁴² Otter, pp. 183–86.

been bright 'festive illumination'.⁴³ The norms and content of the lightscape shifted, but the structure of Manichean opposition persisted: a celestial whiteness contrasted with an infernal ochre. Even as late as 1861, Mayhew referred to 'the intense white light of the new self-generating gas-lamp'.⁴⁴ However, when compared to the electric lights of the 1870s, particularly 'purer' forms of flameless incandescence, gas burners attained a generally earthy palette.

In certain situations, whiter spectra prove undoubtedly advantageous, such as when evaluating colours at night with respect to daylight norms. Optical acuity is also improved under whiter light, facilitating detailed perception at a greater distance – something which had obvious benefits for street lighting. These reasons are often used to explain the enthusiasm for whiter spectra at the time. Yet many other factors were at play as well, including white light's racialised associations with purity and sanitation: light was second only to water in sanitary value, as is reflected in the combined fountain-standards of MacFarlane's illustration – 'beacon[s] of civilisation', as Barbara Penner puts it.⁴⁵

As technologies for spacing and distributing light, gas standards produced a very specific luminous atmosphere as well: the main feature of which was lighting from above, and at uniform, regular intervals. This may seem obvious: it is something which has become so naturalised as to become unremarkable. Yet this regularity was something entirely new to the nineteenth century, reflecting the rhythm of the Georgian terraces and colonnades alongside which they were distributed. This suggested an abstract form of classicism which itself was associated with whiteness. Yet Richard Dyer argues that the 'superior position' of overhead lighting was 'ethnically suggestive' of whiteness as well, and 'carries geographical and ontological connotations': it is 'northern', as well as 'celestial' or 'heavenly'.⁴⁶

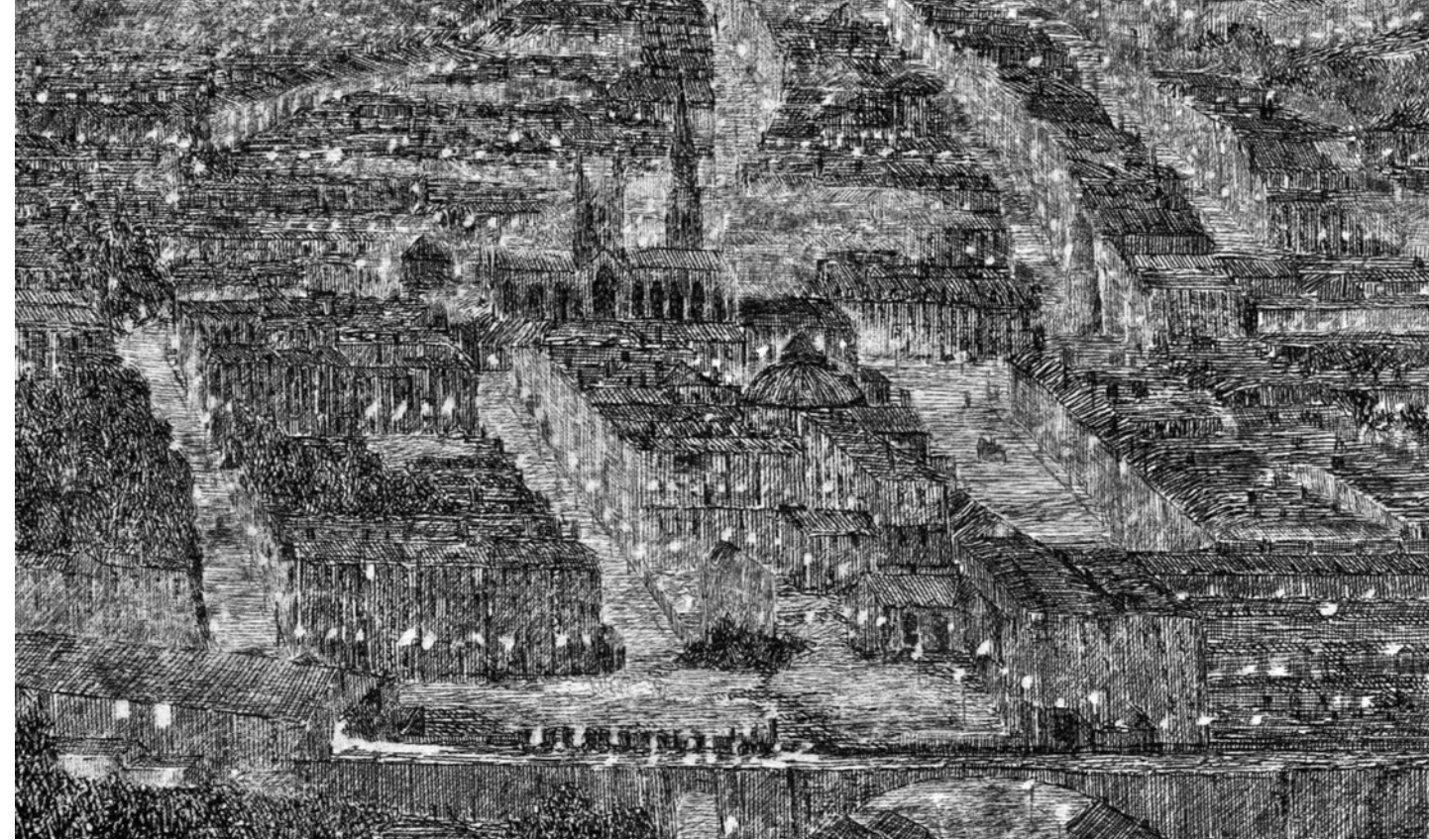
Dyer bases this argument most firmly in the context of painting and photography, yet he makes some useful speculations about everyday lighting as well. Central to his argument is that, prior to the nineteenth century, most artificial lighting came from around eye height or below:

43 Frederick Accum, quoted in Charles Hunt, *A History of the Introduction of Gas Lighting* (London: Walter King, 1907), p. 129; and C.P. Moritz, *Travels of Carl Philipp Moritz in England in 1782* (London: Humphrey Milford, 1924), p. 28.

44 Quoted in Barty-King, n.p.

45 See also: Dana Berthold, 'Tidy Whiteness: A Genealogy of Race, Purity, and Hygiene', *Ethics and the Environment*, 15.1 (2010), pp. 1–26.

46 Dyer, pp. 106 and 116–21.



interior chandeliers were mainly the preserve of the rich and had to be hung low due to excessive guttering and extinguishing of candles; theatres used footlights, while street lighting was irregular and dim. New overhead gaslights were ethnically suggestive because of their association with a certain genre of European painting, as well as celestial forms of natural light.

This specific strand of tenebrous painting, from Caravaggio to Rembrandt, used divine illumination, high-contrast chiaroscuro and overhead lighting to dramatise its compositions. From the 1830s onwards, these paintings were being rediscovered and acquired by institutions such as the National Gallery, with commentators touting them as lofty achievements of European 'civilisation'. The correlation between these paintings' reevaluation and the rollout of overhead streetlighting is compelling, if circumstantial. Dyer demonstrates the explicit effect this had on photography, studio lighting and film: overhead lighting was deemed more 'natural' and flattering to a pale complexion, despite foot-lighting being the accepted norm for centuries; it was even used to enhalo fair subjects in a manner suggestive of divinity. This aesthetic was explicitly termed 'northern' for its ties with northern Europeans. Nevertheless, the more straightforward impulse towards mimicking natural forms of light was a regularly cited factor from the start, one which itself enabled overhead lighting to be mobilised as an emblem of white superiority.

Figure 4.

Detail from
Edwin Edwards,
'Bath by
Gaslight', 1867.
Etching (© The
Trustees of the
British Museum).

Gas Stars

Where the earliest gaslights were likened to suns, with the rise of electric lighting, stars became the more common point of comparison. Unlike a sun, or even a moon, stars don't necessarily illuminate the space around them; they serve as visible points or orientation devices within surrounding darkness. Urban gaslights were similarly experienced as objects or constellations of objects: instead of producing luminous clearings, they acted as luminous bodies or guides within a field equivalent to partial moonlight.

Stellar metaphors had been common since at least the early Victorian period. Lynda Nead cites several examples from the 1860s, including one quotation from the *Illustrated London News* which describes a nighttime balloon ascent over London, where the view is like 'looking through a telescope directed at the milky way'.⁴⁷ There is a sublimity here which captures and aggrandises the new scale of the metropolis. Others describe the cityscape redrawn in 'lines of brilliant fire', as if 'some gigantic fire map'. We might compare these quotations to an etching of Bath from 1867 by Edwin Edwards (fig. 4). What is striking is the measured regularity of the luminous dots, complementing the darkened rhythms of windows and trees: they act as points and ordinates within twilight. Note how they follow public roadways, the jurisdiction of the police, while leaving parks and private property in deepened darkness. A 'fire map' is an apt analogy here: maps also reduce the city to points and lines, revealing only what is necessary for orientation and specific forms of action. This astral nightscape was an edited, abstracted version of its daytime counterpart, its visuality reduced to the essentials of what was needed to secure circulation and promote consumption.

The most famous stellar imagery from the late nineteenth century comes from Robert Louis Stevenson's 'A Plea for Gaslight' (1878), where he exclaims of 'the age of gas lamps' that 'city-folk had stars of their own; biddable, domesticated stars' (277–78). First published in *London* magazine, Stevenson's 'Plea' was an explicitly romantic and reactionary intervention into contemporary debate, arguing against the adoption of electric arc light – something for which Otter dismisses him as 'splenetic'.⁴⁸ By couching the modern in the guise of the natural and classical, Stevenson used stars to imbue gas with a sense of

⁴⁷ Quoted in Nead, *Victorian Babylon*, pp. 84–85.

⁴⁸ Otter, p. 9.

familiarity and enchantment. He likewise evokes a sublime fear in electricity by contrasting gaslight's flame with the 'permanent lightning' of arcs (281).⁴⁹

Through their 'twilight diligence', lamplighters are described as 'distribut[ing] starlight' as they 'spread out along a city [...] at measured intervals, knocking another luminous hole into the dusk' (279):

It is true that these [stars] were not so steady, nor yet so clear, as their originals [...] But then the gas stars, being nearer at hand, were more practically efficacious than Jupiter himself. It is true, again, that they did not unfold their rays with the appropriate spontaneity of the planets, coming out along the firmament one after another, as the need arises. But the lamplighters took to their heels every evening [...] It was pretty to see man thus emulating the punctuality of heaven's orbs [...]. (278)

Gaslights, in other words, like their starry originals, produced a particular temporality as well as spatiality. Like Spencer's engraving above, Stevenson alludes to the supersession of astrology and myth by these 'gas stars' of the scientific age – though these stars were not without enchantment either. During the late nineteenth century, astronomy was having somewhat of a popular renaissance. Astronomical analogies brought this world down to earth, producing a symbolic heaven in the metropolitan centre. This was an invocation of the 'astrophysical sublime', as Nead puts it; something which further aggrandised the metropolis.⁵⁰ Yet this imagery does more than this: the implication is that instead of stars dictating the destiny of Man, Man has taken charge of these stars, as well as his own destiny. This was deemed an attainment only of the metropole, which had broken free of the determinants of both internal and external nature. Gas stars served to fix this new order in place.

Whereas 'star-rise by electricity' was effected instantaneously by a 'sedate electrician' – one of the few benefits Stevenson admits to – lamp-lighting occurred gradually and was figured as a 'heroic task' (280); the lamplighter a Promethean figure. Gas ignition, therefore, remained reassuringly asynchronous, local and human, a hangover from a previous temporal order when people were still visibly in control of machines; and where time and light had yet to become fully mechanised or automated.

⁴⁹ For more on the 'Gothic' qualities of electric light in Stevenson, see: Laura Ludtke, 'The Lightscape of Literary London, 1880–1950' (unpublished thesis, Oxford University, 2015).

⁵⁰ Lynda Nead, *The Haunted Gallery: Painting, Photography, Film c.1900* (New Haven: Yale University Press, 2007), pp. 199–245.

Opposite:

Figure 5.

'The Electric Light on the Thames Embankment'. Woodcut for the *Graphic*, 4 January 1879, p. 17 (© Illustrated London News Ltd/Mary Evans).

Yet what about the illumination produced by these gas stars? Edwards's etching gives some sense of this, but we might also turn briefly to the photometric readings of Alexander Trotter.⁵¹ After all, links between gaslight and stars weren't simply limited to the arts: photometry owes much of its origins to astronomy as well, with Kepler's inverse-square law forming the basis of many early photometers. With this, Trotter was able to demonstrate that typical gas lamps produced between 0.1 and 0.005 foot-candles (fc) depending on proximity to the lamp, comparable to deep twilight and partial moonlight respectively. These measurements were averages, however: gas flames constantly shifted in brightness, roughly every tenth of a second – these gas stars twinkled. The brightest moonlight, by contrast, produces up to 0.03 fc of illuminance. This meant the full moon was still, on average, a more effective streetlight than gas, and few councils bothered lighting up on such nights. In the era of gas, therefore, Man was still somewhat beholden to the cycles of the moon.

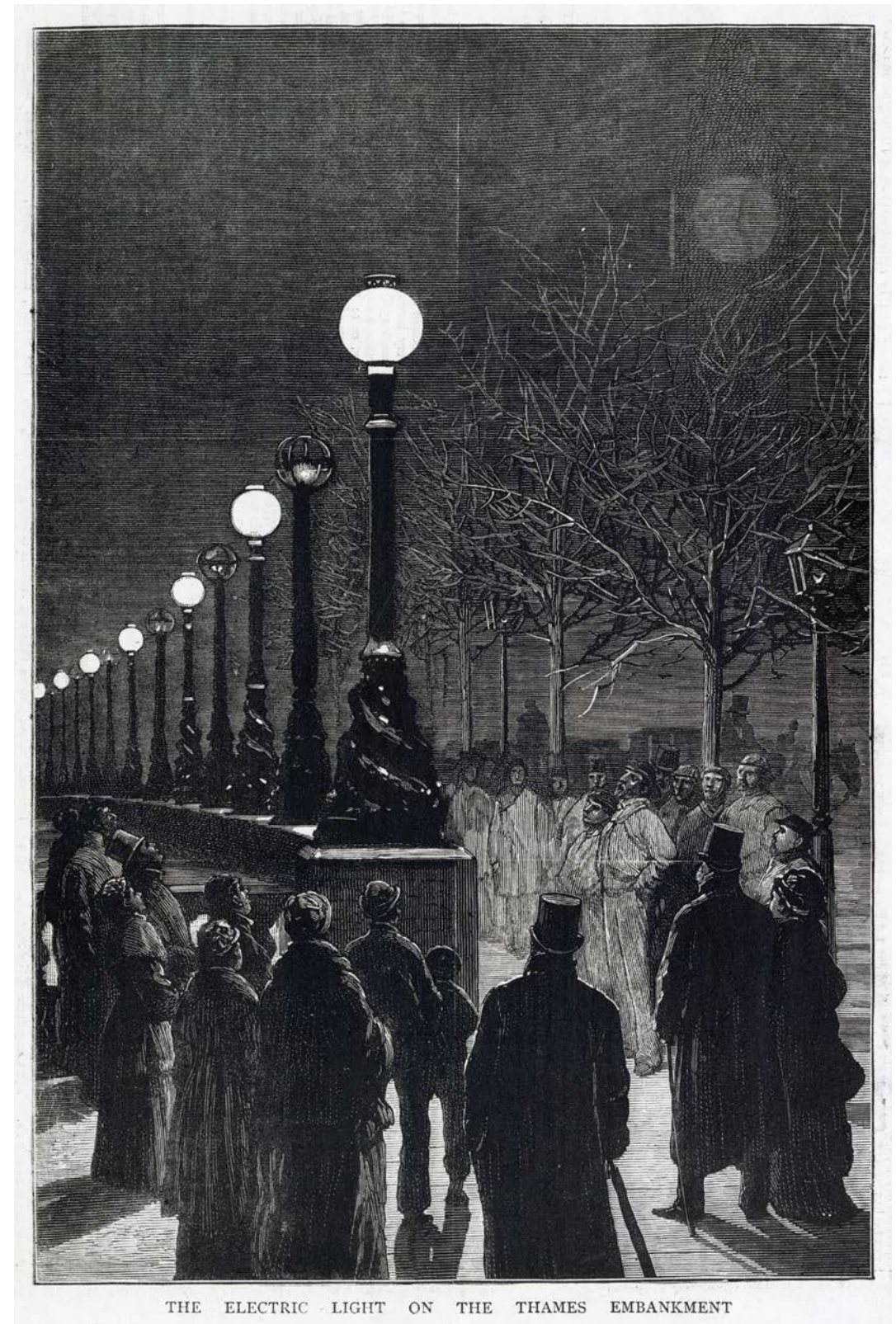
Electric Moons

We will now turn to a final engraving from the *Graphic*, from January 1879, depicting one of first arc lighting installations along the Victoria Embankment in London (fig. 5). This image features almost ubiquitously in British histories of lighting, coming retrospectively to symbolise electricity's 'apotheosis'.⁵² However, like the majority of illustrations in these histories, the image is typically deracinated, cropped down and given little critical attention. When re-placed in its context, the illustration's primary significance becomes as glaring as its subject matter: the *Graphic*, set up in 1869, was an explicitly imperial newspaper in both circulation and content. In an issue otherwise full of colonial visitations, the Afghan War and racist caricature, figure 5 stands alone in emphasising the contrasting modernity of the metropolis.

The opalescent clock face of the Palace of Westminster, then backlit using gas burners, looms large in the background via a haze of fog. Its public, 'monumental time' should not be taken for granted: the Palaces of Westminster had only recently been completed to neo-Gothic designs by Charles Barry and Augustus Pugin; while national and international time were only just being consolidated and standardised – with the Greenwich Meridian Conference still five years in

⁵¹ A.P. Trotter, *The Distribution and Measurement of Illumination*. (London: The Institution of Civil Engineers, 1892).

⁵² Wolfgang Schivelbusch, *Disenchanted Night: The Industrialisation of Light in the Nineteenth Century* (Oxford: Berg, 1988).



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the future – at which point London became the official centre of the world.⁵³ The Clock Tower was emblematic of this centrality. In figure 5, its moon-like clock-face seems to reference a previous era when local time and lighting were more closely tied to celestial bodies, replacing a waxing and waning moon with one which is consistently full.⁵⁴ This artificial moon was another fixed point, or orientation device, serving to keep the world in place and time.

Yet the arc lamps also had celestial significance, as well as a novel effect upon time. While earlier arc demonstrations were likened to stars, the embankment lamps were more regularly likened to moons. The specific reason for this was their silvery-white light, as well as the opalescent glass globes used to soften their glare: their white circular forms in figure 5, positioned in the middle of the sky, and devoid of any star-like spikes or metal bars (as might be seen on the globe-lamps in figure 2), make this comparison relatively explicit. This representation helped domesticate the lamps, cloaking them in the guise of the familiar and archaic, though still somewhat enchanted. This was again also aggrandising: it inferred a level of mastery over nature which flatters the metropole.

Nevertheless, in an age without advanced photometry, moonlight was still one of the most reliable points of luminous comparison.⁵⁵ As late as 1892, Trotter argued that street illumination 'begins to be useful when [...] comparable with moonlight'.⁵⁶ However, the first permanent street arcs in London produced a maximum of 0.3 fc – ten times the illuminance of a full moon. For the first time in London's history, advances in both gas and electric lighting increased the ambient brightness of streets into the realms equivalent to twilight – creating an array of what I call 'twilight spaces'. With this, lighting was partially detached from astronomical contingency. This was also the moment that new forms of environmental pollution – light pollution and glare – were introduced to the city, visually occluding the night sky and drastically altering urban ecologies.⁵⁷

53 Paul Ricoeur, *Time and Narrative, Volume 2*, trans. by Kathleen McLaughlin and David Pellauer (Chicago: University of Chicago Press, 1985), p. 101; Giordano Nanni, *The Colonisation of Time: Ritual, Routine and Resistance in the British Empire* (Manchester: Manchester University Press, 2012).

54 See also: Adam Walls, "'Cloister in a Carnival': Electric Light and Gendered Atmospheres in F. Scott Fitzgerald's Manhattan", *Architectural Theory Review*, 22.1 (2018), pp. 42–63 (p. 9).

55 Freeberg, pp.60–69.

56 Quoted in Otter, p. 192.

57 For a recent discussion of this see Matthew Gandy's 'Negative Luminescence', *Annals of the American Association of Geographers*, 107.5 (2017), pp. 1090–1107.

In terms of time, in contrast with the gradual ignition of gas, electricity introduced a 'spectacle of instantaneity' to the city.⁵⁸ This process was partially automated and immediate, consisting of a single, simple act of 'deistic animation',⁵⁹ after which the electrical apparatus would run of its own accord – though still with regular breakdowns in these early years: the alternating gas lamps in figure 5 weren't simply there for contrast. This 'deistic' switching is not directly captured in the image, yet there is a sense of it being based shortly after, with the crowd still gathered and shocked by its transformation. This no doubt enhanced the spectacle of the arcs, making them appear autonomous and even magical. However, in everyday use, lamps were generally switched on in twilight while there was still some light in the sky, smoothing this transition, and facilitating their move into the background of experience. What remained, to those who paid attention, was a level of synchronisation and automation entirely novel to the 1870s.

In figure 5, there also appears to be a foregrounding of male, working-class labour, or 'navvies' as they were known at the time – they are positioned in the light and face the viewer, in triumphant stances, surveying the fruits of their labour. This convention had developed in the liberal and imperial press as a means of asserting human control over the 'mythic forces' of technology. A significant shift from the mid-century, however, was its representation through anonymous, yet 'noble', working-class men, not just aristocratic or bourgeois scientists – a sentiment given ultimate expression in the Reform Act of 1867.⁶⁰

While it's not possible to accurately determine the identities of the crowd in figure 5, when viewed in the context of the wider issue of the *Graphic*, it's clear they're intended to be white – they all have very different features and attire to the stereotyped Chinese Americans on the pages before, for instance. This image of a newly white brotherhood was projected outwards, towards the British colonies and dominions, and was not necessarily representative of metropolitan reality. It idealised the metropole by presenting it as uniformly modern, enlightened and white: a symbolic nation of capitalists and newly enfranchised navvies, gathered together, side by side, in the light of public life, with chaperoned dependents in tow. The electric arc itself, as an object of shared desire,

58 Sandy Isenstadt, *Electric Light: An Architectural History* (Cambridge, MA: MIT Press, 2018), p. 15.

59 Ihde, pp. 99–100.

60 Hall; Nead, *Victorian Babylon*, pp. 24 and 31–32; Dobraszczyk, pp. 358–62.

collectively oriented and gathered this nation within its bright interior – a new, celestial ‘peak’ of development.

However, this construction was never about illumination and clarity alone, but darkness and obscurity as well – suggested here by the sharp shadows thrown by the arcs. As Foucault puts it, ‘the famous dazzling effect of power [...] is not something that petrifies, solidifies, and immobilises the entire social body, and thus keeps it in order; it is in fact a divisive light that illuminates one side of the social body but leaves the other side in shadow or casts it into darkness’.⁶¹ The constitution of this physically and symbolically bright metropolitan centre relied on the constitution of a benighted exterior: the increasingly ‘dark’ and ‘primitive’ African continent, non-white colonies, as well as London’s working-class slums. These ‘eclipsed’ Others and spaces acted as orientation devices, or shadow selves, against which white metropolitan identity was formed.⁶²

Conclusions

As a form of modern ‘ethno-astronomy’ – or as ideology reified within artificial stars – nineteenth-century lighting wrested influence down from the heavens, yet cast us in thrall to a new, Man-made order of things – to disenchanted ‘freedom’, as white liberal mythology would have it. Yet this freedom was only ever partial and illusory. We are now increasingly aware of these limits to liberalism, yet nevertheless continue to pursue the same ‘Promethean’ modes of technology. In London, for instance, we are experiencing a similar shift today from sodium vapour to LED lights, which has both reduced energy consumption and accelerated the negative social, health and ecological effects of light pollution: white light is back with a vengeance.⁶³ To begin to reframe and imagine our technological practices otherwise, it is worth returning to Benjamin and Wynter.

In *One Way Street* (1928), Benjamin ends his essay with a section ‘To the Planetarium’, where he argues that technology is not about controlling nature, as ‘the imperialists teach us’, but about ‘controlling the relationship

⁶¹ Michel Foucault, *Society Must Be Defended: Lectures at the Collège de France, 1975–76*, ed. by Alessandro Fontana and Mauro Bertani, trans. by David Macey (London: Penguin, 2004), p. 70.

⁶² Fanon, pp. 108–11; Patrick Brantlinger, *Rule of Darkness: British Literature and Imperialism, 1830–1914* (Ithaca: Cornell University Press, 1988).

⁶³ For excellent recent sociological work on lighting, see the website of LSE’s project ‘Configuring Light’: <<https://www.configuringlight.org/>> [accessed 7 March 2023].

between nature and humanity’.⁶⁴ By evoking the ‘new stars’ of artillery and flares which lit up the First World War, he argues instead for a ‘true cosmic experience [that] is not bound to that tiny fragment of the natural world we are in the habit of calling “nature”’. With this, he calls for the rise of the world proletariat and, through a state of communal and spiritual ‘intoxication’, the resetting of our relationship with nature and the cosmos in a manner conducive to ‘humanity’ and life on earth more generally.

Within the context of our postcolonial present, Wynter calls for a similarly ‘re-enchanted’ and ‘planetary humanism’.⁶⁵ The aim here is not to return to a Christian form of enchantment, nor even the Jewish mysticism which preoccupied Benjamin towards the end of his life. It is to move towards a non-anthropocentric mode of ‘intoxication’ which recognises both the agency of nonhumans and matter, as well as the ongoing magical thinking of race. This article joins others in attempting to flesh out the spatial and material implications of Wynter’s project. If race remains the central principle through which our modern world is ‘enchantedly constituted’,⁶⁶ this has always been a spatial process as well. One key aspect of this is race’s analogical relation to light and darkness, as well as lighting’s orientational role within urban life. Yet, more generally, by placing technological practices within their wider ontological contexts – by treating them as a form of ‘cosmotechnics’ – we can begin to provincialise those practices and move towards new forms of technology which are truly ‘made to the measure of the world’.⁶⁷ In this blending of new materialism with critical race theory lies a major avenue for work seeking to decolonise and decarbonise our collective worlds. Only through this may we begin to step outside the European ‘Promethean’ approaches to technology which have brought about our current conjoined crises.

⁶⁴ Walter Benjamin, *One-Way Street and Other Writings*, trans. by J.A. Underwood (London: Penguin, 2009), pp. 113–15.

⁶⁵ David Scott, ‘The Re-Enchantment of Humanism: An Interview with Sylvia Wynter’, *Small Axe*, 8:9 (2000), p. 207.

⁶⁶ Sylvia Wynter, ‘On Disenchanting Discourse: “Minority” Literary Criticism and Beyond’, *Cultural Critique*, 7, 1987, pp. 208.

⁶⁷ Aimé Césaire, quoted in Scott, p. 119.

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Biography

Adam Walls previously worked in architectural practice before completing his PhD in architectural and urban history and theory. His thesis, 'Twilight Spaces', investigates the transformation of London's nocturnal atmospheres during the era of high imperialism. This work is fundamentally interdisciplinary and brings together literary, visual and material culture with new materialist, decolonial and intersectional approaches to the built environment. Previous work on gender and atmosphere has been published in the *Architectural Theory Review*. He currently teaches at UCL, where he is co-author of an open access curriculum '*Race and Space*' and an organising member of the Bartlett's Decolonial Reading Group.

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OBBLIGATO¹

Superstudio's drawn, written, exhibited and performed architectural works from the mid-1960s through to the early 1970s are seen as representative of Italian radical architecture's anti-capitalist rejection of traditional, client-driven modes of architectural production. In more recent years, scholarly exploration of the uneven but undeniable take up of ideas from Italy's extra-parliamentary Left and, in particular the political theory of Mario Tronti and *operaismo*, by figures associated with *architettura radicale* has helped to locate and articulate the specificities of this work in relation to other architectural countercultures of the period.² While acknowledging the importance of this historical context, the following study calls attention to another set of ideas operating within Superstudio's work—and, more specifically, in the published contents of *Le dodici città ideali* (in English, *Twelve Ideal Cities*).

The repeated enumeration, transformation and transfiguration of worlds outside of architectural and urban discourse beckons: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, *une, due, tre, quattro, cinque, sei, sette, otto, nove, dieci, undici, dodici*.

Between 1971 and 1974, Superstudio's *Le dodici città ideali* was published in a series of architectural journals: 都市 受託 (*Toshi Jutaku*), *AD*, *Casabella*, *Archithèse*, *Architektur Aktuell*, Αρχιτεκτονικά Θέματα (*Architektoniká Thémata*), and *Cree*. Resisting the collapse of this work into a neatly-historicised position, the following annotated visual exposition reveals the multiple and decidedly mystical readings of this work. Together, the repeated (and, each time, reconfigured) publications of Superstudio's contradictory *Le dodici città ideali* act as iterations, which we argue reject a singular perspective and instead provide ongoing revelations through a practice of incantation. Ideal cities are undead and thus read more closely

¹ An Italian classical music term, signifying 'an indispensable part which cannot be omitted from the performance'.

² See, for example, Felicity D. Scott, *Architecture or Techno-utopia: Politics after Modernism*, (Cambridge, Mass.: London: MIT Press, 2007); Pier Vittorio Aureli, *The Project of Autonomy: Politics and Architecture Within and Against Capitalism*, (New York: Temple Hoyne Buell Center for the Study of American Architecture: Princeton Architectural Press 2008); Alex Coles and Catharine Rossi, eds., *The Italian Avantgarde: 1968–76*, vol. 1, EP (Berlin: Sternberg Press, 2013); Pier Vittorio Aureli, 'Manfredo Tafuri, Archizoom and Superstudio and the Critique of Ideology', in *Architecture and Capitalism: 1845 – Present*, ed. By Peggy Deamer (London: Routledge, 2013), pp. 217–38; Ross K. Elflin, 'Superstudio and the "Refusal to Work"' *Design and Culture* 8, 1 (2016), 55–77. In addition, see Gail Day's discussion of Tronti in relation to the work of Manfredo Tafuri during this time, and Steve Wright's unparalleled history of Italian Autonomist-Marxism: Gail Day, *Dialectical Passions: Negation in Postwar Art Theory*, (New York: Columbia University Press, 2011); Steve Wright, *Storming Heaven: Class Composition and Struggle in Italian Autonomist Marxism* (London and Sterling, Virginia: Pluto Press, 2002).

in supernatural re-presentations. We follow Superstudio in refusing either utopian or dystopian futures and chant along with them, speaking directly to, for, and about our fellow architects: *nella culla dell'antiutopia noi cerchiamo di farli [i piccoli mostri] crescere* (roughly translated, 'in the cradle of anti-utopia, we help make these little monsters grow').³

Uno

YOU HAVE ALWAYS BELIEVED IN THE VISIONARY SCHEMES OF RADICAL ARCHITECTS.

You're a fun person, a creative type who can appreciate the conceptual. Heck, from time to time you even let yourself stop to consider the what if of it all. But if Pasolini knew the kids were late in '68, what are you now?

Almost sixty years after the beginning of Superstudio's work together, and with the recent passing of founding members, Cristiano Toraldo di Francia (1941–2019) and Adolfo Natalini (1941–2020), there is a tendency to emphasise a version of the collective's work that points toward the 'new possibilities' it seemed to put forward: the 'eerily prophetic' content of their most well-known collage-based works.⁴ Does it reassure us to think that Superstudio, sometimes described as 'the architects who refused to make buildings' and always associated with *architettura radicale*, imagined fantastical future cities and structures?⁵ Perhaps it's neater to land on the apparently projective power in the images of projects like *Il monumento continuo*, *Le dodici città ideali* or *Atti fondamentali*, as opposed to searching for further layers in the slipperiness of the written, exhibited and performed work that sits just outside this frame. Nevertheless, the limitations of such a reading are made clear when examining the epilogues and concluding paragraphs of Superstudio's *Le dodici città ideali*. The text, drawings and photomontages that comprise the project were published multiple times in various formats across a number of architectural magazines between 1971

³ Superstudio, 'Utopia, Antiutopia, Topia', In: *Argomenti e immagini di design* 7, 'Distruzione e riappropriazione della città' (September–October 1972): 42.

⁴ James Imam, 'Architects Dreaming of a Future with no Buildings', *The New York Times*, 12 February (2021) <<https://www.nytimes.com/2021/02/12/arts/design/superstudio-civa.html>> [accessed 03 January 2023]; Andreas Angelidakis, 'Racconti dalla Supersurficie/Tales From the Supersurface', in Andreas Angelidakis, Vittorio Pizzigoni, Valter Scelsi. *Super Superstudio*. (Milan: Silvana, 2015).

⁵ Imam, 'Architects Dreaming of a Future with no Buildings'.

and 1974.⁶ In each, following the descriptions of the ideal cities and the logic and logistics of each city's operation, the time comes again and again to reveal that the cities are a test.

Due

YOU'RE MAINLY INTERESTED IN THE PICTURES.

You skim the text. You're really just here for the pictures—their mysterious objects placed without explanation, without apology: quick to copy & paste, cut out & keep, hurry up & finish. What if you've been here the whole time, sinking ever further into the depths of the earth? Sleeping alone, unable to change the steady rotation of proposals, concentrating on this mad vision while leaving new life to future generations? Was that even you?

Looping cautions, dire warnings, and grim consequences recited by Superstudio in the multiple versions of *Le dodici città ideali* similarly recall the ritual power of enchantment through text, image and repeated inversions of both. A prelude to this might lie in the charms of the historiola. Historiolae have been discovered across ancient Mesopotamia, Egypt, early Christian legends and Jewish Kabbalah; and are mostly verbal incantations in the form of a narrative that provide instruction during situations of crisis.⁷ By speaking the same lines as the story's character, the practitioner of historiolae can access magic embedded within its text. In other variations, pictures of such stories were carved into stones so that those who could not—or today, would not—read might simply reach out, touch them and gain similar revelatory power.⁸

⁶ *Le dodici città ideali* was exhibited in 1971 as part of 'Le 12 città ideali, Architettura Interplanetaria' at Mana Gallery, Rome. That same year, the project appeared in print for the first time as 'The 12 Ideal Cities' in *Toshi-jutaku*, translated by Toshio Oishi: Superstudio, '12の理想都市', 都市住宅, 41 (1971). At the end of that same year, it was published in English as 'Twelve Cautionary Tales for Christmas: Premonitions of the Mystical Rebirth of Urbanism' in *Architectural Design* 42. Between 1972 and 1974, the project appeared in *Casabella*, *Archithèse*, *Architektur Aktuell*, *Αρχιτεκτονικά Θέματα* (and *Cree*: 'Premonizioni della parusia urbanistica : Ecco le visioni di dodici città ideali', *Casabella* 36, no. 361 (1972); 'Drei Warnungen von einer Mystischen Wiedergeburt des Urbanismus', *Archithèse* 1 (1972); '3 Vollkommene Stadte', *Architektur Aktuell*, no. 34 (1973); 'Δώδεκα Ίδανικές Πόλεις. Προμηνύματα Γιά Τη Δεύτερη Παρουσία Της Πολεοδομίας', *Αρχιτεκτονικά Θέματα* 7 (1973); 'Douze Contes Premonitoires pour une Renaissance Mystique de L'urbanisme', *Cree*, 25 (1973); 'Douze Contes Premonitoires pour une Renaissance Mystique de L'urbanisme - Suite et Fin', *Cree*, 26 (1974). A few years later, a number of the city descriptions and images were included in Robert Sheckley's text, *Futuropolis* (New York, N.Y.: A. & W., 1978). More recently, at The Storefront for Art and Architecture in 2003, Peter Lang and William Menking recreated "the installation of the project *Dodici città ideali/Twelve Ideal Cities* originally shown in 1972 at Galleria Scherma in Florence", accompanied by a republished a version of the AD version of *Le dodici città ideali*.

⁷ Roy Suddaby, Max Ganzin and Alison Minkus, 'Craft, Magic and the Re-Enchantment of the World', in *Management Research: European Perspectives*, ed. by S. Siebert (New York: Routledge, 2018), pp. 41-72.

⁸ David Frankfurter, 'Narrating Power: The Theory and Practice of the Magical Historiola in Ritual Spells', in *Ancient Magic and Ritual Power*, ed. by Paul Mirecki and Marvin Meyer (Leiden, The Netherlands: Brill, 1995), pp. 455-76.

Critical magic theorists like Damon Zacharias Lycourinos and Jay Johnston see the slippages between stories, object and image common to historiolae as key to the recontextualisation of space and time needed to access 'transpersonal and transworldly'⁹ experiential reality. Thus, ritual actors transform their own phenomenal field and bind individual and more-than-human magical agency together in order to re-author the world.¹⁰ The charmed images of *Le dodici città ideali* are situated in an unending present and offer no cosmological power to change this world other than to reveal the horror of our own lives and the architect's complicity in their creation.

Tre

YOU ARE A "REAL" ARCHITECT.

They used to giggle at you playing with all those creepy-crawlies in the dirt but no one's laughing now. Who needs light, air, and room to move anyway? Certainly not you when packing 10,000,456 squirming bodies into a gross yield.

Every answer in response to the question posed again and again by Superstudio at the conclusion of the description of the cities involves seemingly contrarian categorisation, making good on the collective's dark promise to let the reader know 'who [or sometimes what] they really are'.¹¹ Whether designated as a 'head of state' or a more suspect urbanist like the golems, robots and invertebrates, each respondent judges at least some of the grim cities to be beneficial. Even the assertion that *none* of the cities should be considered desirable leads to Superstudio's contention that the reader hasn't understood the problem of the very question being asked. While this last option resorts to undeniably ableist language and is problematic in referring to the reader as "an idiot", read in the context of the epilogue or test results as a whole, the point attempting to be made each time relays a spectrum of power: from those who have it to those who have yet to realise that they do not.

⁹ Damon Zacharias Lycourinos, 'Becoming the Magician: A Phenomenological Anthropology of the Creation of the Ritual Body in Western Magic' (PhD, University of Edinburgh, 2015), quoted in Jay Johnston, 'Binding Images: The Contemporary Use and Efficacy of Late Antique Ritual Sigils, Spirit-Beings, and Design Elements', *International Journal for the Study of New Religions* 9 (2018), 113-33 (p.127).

¹⁰ Damon Zacharias Lycourinos, *Ritual Embodiment in Modern Western Magic: Becoming the Magician*. (London: Routledge, 2017).

¹¹ Superstudio, 'The 12 Ideal Cities'; 'Twelve Cautionary Tales for Christmas: Premonitions of the Mystical Rebirth of Urbanism'; " 'Premonizioni della parusia urbanistica: Ecco le visioni di dodici città ideali'; 'Drei Warnungen von einer Mystischen Wiedergeburt des Urbanismus'; '3 Vollkommene Stadte'; 'Δώδεκα Ίδανικές Πόλεις. Προμηνύματα Γιά Τη Δεύτερη Παρουσία Της Πολεοδομίας'; 'Douze Contes Premonitoires pour une Renaissance Mystique de L'urbanisme'; 'Douze Contes Premonitoires pour une Renaissance Mystique de L'urbanisme - Suite et Fin'.

Respondents who considered only very few cities as desirable are labelled meagre beings, below even worms. Binding together the human and non-human—and inverting their assumed hierarchies—continues Superstudio's re-authoring of the world and offers insight into an experiential reality of our own parasitic life. Several incantations of *Le dodici città ideali* quote from John Donne's *Deaths Duell* sermon, a document that refers elsewhere to the terror of being eaten by worms—the nightmare of “vermiculation”.¹² More recently, however, Rosi Braidotti has argued post-anthropocentric existence is defined both by interconnectedness and internally fractured relations, ouroborosian to the end. In every sense, the human-worm is a tangled *tell*: a narrated deception ('telling a tale'), an unconscious act revealing an attempt to deceive (for instance, in manipulative card games like poker) and archaeological growth (a mound of earth created from accumulated urban debris over time).

Worms themselves have long symbolised corruption, death, and renewal, with many legends describing the human race emerging from worms inside a primordial corpse.¹³ The human-worm is simultaneously all-seeing and blind, individual and parasite, dark age dragon and contemporary epithet for weakness and cowardice. In 1899, German caricaturist Henry Mayer arrived in London and promptly adopted the 'worm's eye view' for cartoons depicting urban life: “From the point of sight indicated everything is inverted. Persons and objects of all kinds are represented in topsy-turvy fashion.”¹⁴ The 20th century however was truly the apotheosis of human-worm entanglements. Bram Stoker's hysterical *The Lair of the White Worm* (1911)¹⁵ provided early inspiration, as did Frank Herbert's introduction of Arrakis' sandworms as divine agents of terror and transformation in 1965's *Dune*, but things really escalated during the 1970s, when Superstudio were also publishing multiple versions of *Le dodici città ideali*.

12 John Donne, *Deaths Duell, Or, A Consolation to the Soule, against the Dying Life, and Liuing Death of the Body. Deliuered in a Sermon at White Hall, before the Kings Maiesty, in the Beginning of Lent, 1630. By ... Iohn Donne ... Being His Last Sermon, and Called by His Maiesties Houshold* (London: Richard Redmer & Benjamin Fisher; printed by Thomas Harper, 1632), p. 11.

13 Hope B. Werness, *The Continuum Encyclopedia of Animal Symbolism in Art* (Barcelona: Continuum, 2004).

14 Pascal Tréguer, “Worm's-Eye View”: Meaning and Origin, *Word Histories*, 10 April (2021) <<https://wordhistories.net/2021/04/10/worms-eye-view/#:~:text=In%201899%20and%201900%2C%20the,the%20phrase%20to%20caption%20them> [accessed 21 January 2023]

15 Daniel Ogden, 'Did the Classical World Know of Vampires?', *Preternature: Critical and Historical Studies on the Preternatural*, 11 (2022), 199–224; Katharine Cockin, 'Bram Stoker, Ellen Terry, Pamela Colman Smith and the Art of Devilry' in *Bram Stoker and the Gothic*, ed. by C. Wynne, C. (London: Palgrave Macmillan, 2016), 159–171. Stoker's novel has almost universally been declared the worst book ever written but more interestingly, it was illustrated by his friend, popular artist and occultist Pamela Colman Smith, who had also designed the classic Rider-Waite tarot deck published in 1909.

From the first appearance of a 'wormhole' in John Haldeman's *The Forever War* (1974) and the programming term 'worm' in John Brunner's sci-fi hacker novel, *The Shockwave Rider* (1975), to the gruesome calamities of an otherworldly worm worshipped by anachronistic Puritan zealots in Steven King's *Jerusalem's Lot* (1978), the monsters were everywhere. James Stirling even exhumed the worm's eye perspective to render his seminal *Florey Building* (1970-75) as “deliberately hard, spare, restrained and scientific in character...the absolute minimum necessary to convey the maximum amount of useful information”.¹⁶ As witness to the ongoing collapse of such representations, Braidotti suggests further 'opening out' to trans-species assemblages. In these contradictory relations she imagines we may yet navigate the split present condition of “both what we are ceasing to be and what we are in the process of becoming”.¹⁷ Superstudio reminds us that only spineless beings can (and do) foretell the ideal city: 'You are a worm... You're a human being but perhaps that's worse than if you weren't, haven't you noticed?'.¹⁸

Quattro

YOU DON'T LIKE BEING CONFUSED.

You do your own research and it's not that hard. When you need to know more, someone will tell you.

The closing paragraphs of every version of *Le dodici città ideali* consistently instruct the reader to:

Ascend, then, up to the Old Man of the Mountain and be of his children. Observe time through the white hairs of his beard, and when you have been reborn, descend with a pill of hashish beneath your tongue, and a knife under your shirt, to exterminate the spirits, monsters and demons that infest the Earth, and finally, purified with water and incense, you can prepare the foundations for the new City of the White Walls.¹⁹

16 Bob Giddings and Margaret Horne, *Artists' Impressions in Architectural Design*. (London: Taylor & Francis, 2001); James Stirling, *Florey Building, Queen's College, University of Oxford, Oxford, England: axonometric*, c.1970-75, ink, graphite, and coloured crayon on tracing paper, 44.7 x 33.6cm, Canadian Centre for Architecture, Montreal <<https://www.cca.qc.ca/en/search/details/collection/object/393488>> [Accessed 17 January 2023].

17 Rosi Braidotti, 'A Theoretical Framework for the Critical Posthumanities', *Theory, Culture & Society*, 36 (2019), 31-61 (p. 52).

18 Superstudio, 'Twelve Cautionary Tales for Christmas' (p. 785).

19 Superstudio, 'Twelve Cautionary Tales for Christmas' (p. 785).

Nevertheless, just three of the incantations: 都市住宅 (*Toshi-Jutaku*), *Casabella*, and Αρχιτεκτονικά Θέματα (*Architektoniká Thémata*) thread a series of quotations within the epilogue's judgements, shedding further light on the collective's framing of the figure of the 'Old Man of the Mountain' through the inclusion of a passage from Marco Polo and Rustichello da Pisa's *Il Milione* (also known as *Book of the Marvels of the World* and *The Travels of Marco Polo*). In this passage, Polo describes the way that the supposed 'Old Man of the Mountain' recruits followers through the use of drugs to lure young men into an apparent paradise within the walls of his castle, promising them eternal life in paradise if they faithfully execute his instructions to kill various enemies. Using the pejorative word 'assassin', Polo asserts that these men did not 'terror at the risk of losing their own lives, which they held in little estimation, provided they could execute their master's will'.²⁰

More recent scholarship on this part of Polo and da Pisa's text clearly points to a fictionalised portrayal of Ala'al-Din Muhammad and the Nizari Ismaili Muslim community who resided in the Alamut region of Persia that is both fanciful and problematic. Farhad Daftary and Shafique N. Viran, for example, have examined the ways in which Polo's account propagated stereotypes about Islam that have been perpetuated by western scholarship for centuries.²¹ Viran's work also notes that a "grudging admiration" for the commitment of the followers of the 'Old Man of the Mountain' was present in a number of mid-twentieth-century novels that drew on Polo and da Pisa's story, some of which were popular in Italy during the 1960s and 70s:

The most famous work of Slovene literature ever written was the 1938 novel *Alamut* by Vladimir Bartol (d. 1967) of the Slovene minority in Italy. Literary critics saw in Bartol's work an allegory for the contemporary revolutionary organisation TIGR, which struggled against the fascist Benito Mussolini's (d. 1945) forced Italianization of the Slovene and Croat people in the former Austro-Hungarian territories.²²

²⁰ Marco Polo, *The Travels of Marco Polo: The Venetian*. Translated by William Marsden (London: Bohn, 1854), (p. 76).

²¹ Shafique N. Virani, 'An Old Man, a Garden, and an Assembly of Assassins: Legends and Realities of the Nizari Ismaili Muslims', *Iran: Journal of the British Institute of Persian Studies* (2021) 1-13; Farhad Daftary, *The Assassin Legends: Myths of the Ismailis* (London: I.B. Tauris, 1994).

²² Virani, 'An Old Man, a Garden, and an Assembly of Assassins: Legends and Realities of the Nizari Ismaili Muslims', (p. 8). Virani quotes Mirt Komel's scholarship on the topic with regard to this "double-bind re-orientalization" of the followers in the story: "the Assassin is gradually transformed from an orientalized villain into an occidentalized hero." See Mirt Komel, 'Re-Orientalizing the Assassins in Western Historical-Fiction Literature: Orientalism and Self-Orientalism in Bartol's *Alamut*, Tarr's *Alamut*, Boschert's *Assassins of Alamut* and Oden's *Lion of Cairo*', *European Journal of Cultural Studies* 17 (2014), (p. 525).

The fragment of Polo imbricates another writer similarly fascinated by superimposing histories, counterfactuals, and relations of power in Italy during the 1960s and 1970s: Italo Calvino. *Le dodici città ideali's* impact on his 1972 novel *Le città invisibili* (in English, *Invisible Cities*) is a well-rehearsed argument²³—and Superstudio had even submitted their manuscript to Einaudi, the publishing house where Calvino worked as an editor, in 1970 — but it should also be remembered that the latter had long engaged with the recombinatory possibilities of story and image, and experimented with narratological patterns as a member of the French postmodernist group of mathematicians and writers, *Oulipo* ('Ouvroir de Littérature Potentielle', generally translated as 'Workshop for Potential Literature').²⁴ Indeed, we might see an even more intriguing influence on *Le dodici città ideali* via Calvino's collection of *Le cosmicomiche* short stories, published in 1965. For each of the 12 'cosmicomics', the story commenced with a fact taken from recent scientific research (and often of cosmological significance), around which Calvino conjured an imagined world. Taken together, such worlds revealed the history of the universe. Italian literature and science fiction scholar Elio Attilio Baldi describes these stories as putting parody 'to work'. Calvino's cosmicomics use the logic and patterns of science fiction as a tool: revealing, renewing and reproducing conventions to tell tales of grim futures, as 'one of the obstacles of actually experiencing new worlds as they are, is constituted by the stories and myths (of science fiction) that we have woven around those worlds before actually discovering them'.²⁵

²³ Including Letizia Modena, *Italo Calvino's Architecture of Lightness: The Utopian Imagination in An Age of Urban Crisis* (London: Taylor & Francis, 2011); Laura Chiesa, 'Italo Calvino And Georges Perec: The Multiple And Contrasting Emotions Of Cities And Puzzles', *Romanic Review* 97 (2006); and Daniela Prina, 'Superstudio's Dystopian Tales: Textual and Graphic Practices as Operational Method', *Writing Visual Culture* 6 (2015), amongst others.

²⁴ One of Calvino's first assignments while working at Einaudi was to collect uncanny Italian folktales and fairy stories for translation (*Fiabe Italiane*, 1956). See Katy Wildman, 'The Becoming of Italy Calvino', *The New Yorker* (2021) <<https://www.newyorker.com/books/page-turner/the-becoming-of-italo-calvino>> [Accessed 10 May 2023], (n.p.). He was also almost certainly involved in Einaudi's introduction of science fiction to Italian readers through their 1959 publication of Sergio Solmi's anthology, *Le meraviglie del possibile*; and later translated foundational sci-fi works by Asimov, Bradbury, and others for a (children's!) collection, which he co-edited with historian, Giambattista Salinari, entitled *La lettura: Antologia per la scuola media* (1969). See Elio Attilio Baldi, 'Italo Calvino and Science Fiction: A Little Explored Reading', in *Calvino's Combinational Creativity*, ed. By E. Scheiber (Newcastle upon Tyne: Cambridge Scholars Publishing, 2016), pp. 41-61.

²⁵ Baldi, 'Italo Calvino and Science Fiction', p.43.

Cinque

YOU DON'T TEST WELL / YOU ALWAYS SKIP TO THE END.

You don't recall anyone ever saying that there'd be a test. If they had, you would have received top marks. You're sad that there's no way to tell anyone that.

The magazine-style quiz format that *Le dodici città ideali* follows shifts slightly across versions of the project. In three versions (*Architectural Design*, *Archithèse*, *Architektur Aktuell*) readers are asked to turn to the back of the publication in order to see what their answers mean. In other publications, however, the information follows on directly from the city descriptions. These last parts of the project are referred to as epilogues, test results, conclusions, or a combination of these terms. At the conclusion of the text for the twelfth city (City of the Book), or the third city (Continuous Production Conveyor Belt City — also described as the seventh city in all full versions of the project), all of the cities are revealed to be a test and a warning appears: 'Read carefully and you will really know who [sometimes "what"] you are. The hour of revelation is near.'

'そして例の通り, こば、あなたがたの何たるかがおわかりになるだろう。
啓示のときは近づいた'²⁶

'Work out your answers carefully'

'LEGGETE CON ATTENZIONE E SAPRETE VERAMENTE CHI SIETE:
LA RIVELAZIONE E' VICINA'²⁷

'LESEN SIE SIE AUFMERKSAM UND SIE WERDEN WISSEN, WER SIE
SIND. DIE ENTHÜLLUNG IST NAHE'²⁸

'Διαβάστε με προσοχή και θα μάθει το ποιός πραγματικά είστε, ή
αποκάλυψη είναι κοντά'²⁹

"Lisez avec attention et vous saurez vraiment qui vous êtes. Vous
êtes proche de la révélation."³⁰

²⁶ "And as always, here you will see what you are. The hour of revelation is near."

²⁷ "READ CAREFULLY AND YOU WILL REALLY KNOW WHO YOU ARE: THE REVELATION IS NEAR."

²⁸ "READ CAREFULLY AND YOU WILL KNOW WHO YOU ARE. THE REVEAL IS NEAR."

²⁹ "Read carefully and you will know who you really are, or revelation is near."

³⁰ "Read carefully and you will really know who you are. You are close to revelation."

Importantly, the project has the ability to tell us who or what we are now *not* because of what the cities depicted say about our future ambitions for society but because of what we might be able to recognise about the present: 'the horror of us and our surroundings' is revealed through the work.

Sei

YOU BELIEVE IN RELIGION (SCIENCE), NOT MAGIC.

Sure, you're just as confused as anyone right now — like, what on earth is going on with those forever chemicals??? It would be better if you didn't think at all.

Magic has many traditions, practices, and applications across cultures and temporalities, and has long been co-produced with everyday life. Contrary to popular belief, Jamie Sutcliffe claims that magical thought is not undergoing a 'rediscovery' in response to contemporary gaps in political or spiritual life, rather, 'magic' is a continuation of critical thinking by artists (and the artful) that draws on uncertainties and unfamiliarities so as to posit the possibility of other worlds to inhabit. Distinguished from the outward-speculative methods of science fiction, magic tends to project within: examining anomalies, disturbances and irregularities through the performative use of invocation, embodiment, didacticism, and the manipulation of symbols.³¹

Similarly, the philosopher Olaf Pettersson argued that we aren't really that interested in how rituals work, we are simply reassured that they do work.³² Pettersson posited that distinctions constructed between science, religion and magic were artificial problems: created to shore up Western definitions of objectivity and the proper functions of modern European society. Magic, ceremonies, and rituals were (and are) therefore a convenient container into which anything that does not fit neatly within these schemes can be relegated. We could therefore recognise irrational magic and rationalised religion as indistinguishable aspects: both build on human desire for relief from anxiety regarding a meaningless world, and to command life in one's own favour.³³ Religion studies scholar Randall Styers suggests it is through being framed as other, alien and deviant by successive cultural logics that discourses of magic are able to both confirm and undermine the frail self-

³¹ Jamie Sutcliffe, 'Magic: A Gramarye for Artists', In *Magic*, ed. by Jamie Sutcliffe (London: Whitechapel Gallery, 2021), pp. 12-20.

³² Olof Pettersson, 'Magic - Religion: Some Marginal Notes to an Old Problem', *Ethnos* 22 (1957), pp. 109-19.

³³ Pettersson, 'Magic - Religion: Some Marginal Notes to an Old Problem'.

image of Western modernity.³⁴ Superstudio's photomontages are similarly paradoxical, mystical and propositional in practice: they work to unfix representations, reinscribe subverted norms, and reveal 'the subterranean conjuration always at work in the cultural text'.³⁵

Caution must be exercised however for, as Sutcliffe maintains, magic has been and continues to be weaponised by fascist cultures as a marker of difference, naivety, and the need for control over minoritised groups. This works to legitimise colonial practices that romanticise modern (often white supremacist) Paganism as well as the ongoing dispossession of Indigenous peoples, lands and waters, and co-opting of traditional knowledges in attempts to 'redeem' other peoples.³⁶ Violence is called forth through shared delusion and enacted upon marginalised communities through their exclusion, enclosure, and expropriation. *Le dodici città ideali* reminds us of the necessity to temper the 'wonder' of mysticism with a critical regard for its long and complex production: in the (AD version of the) third city, Superstudio warns that its inhabitants (literally, many millions of rotting brains) are 'immersed in their interminable meditations, or concentrated in mute, indefinite intercourse. Completely cut off from external perception, they can sublimate their thoughts...free to reach the supreme goals of wisdom and madness.'³⁷ Resisting the concealment of disinformation and misdirection remains paramount today, as viral post-truth 'conspiratorialities'³⁸ draw ever more on a kind of magical determinism.

34 Randall Styers, *Making Magic Religion, Magic, and Science in the Modern World* (Oxford: Oxford University Press, 2004).

35 Styers, *Making Magic Religion, Magic, and Science in the Modern World* (p. 23).

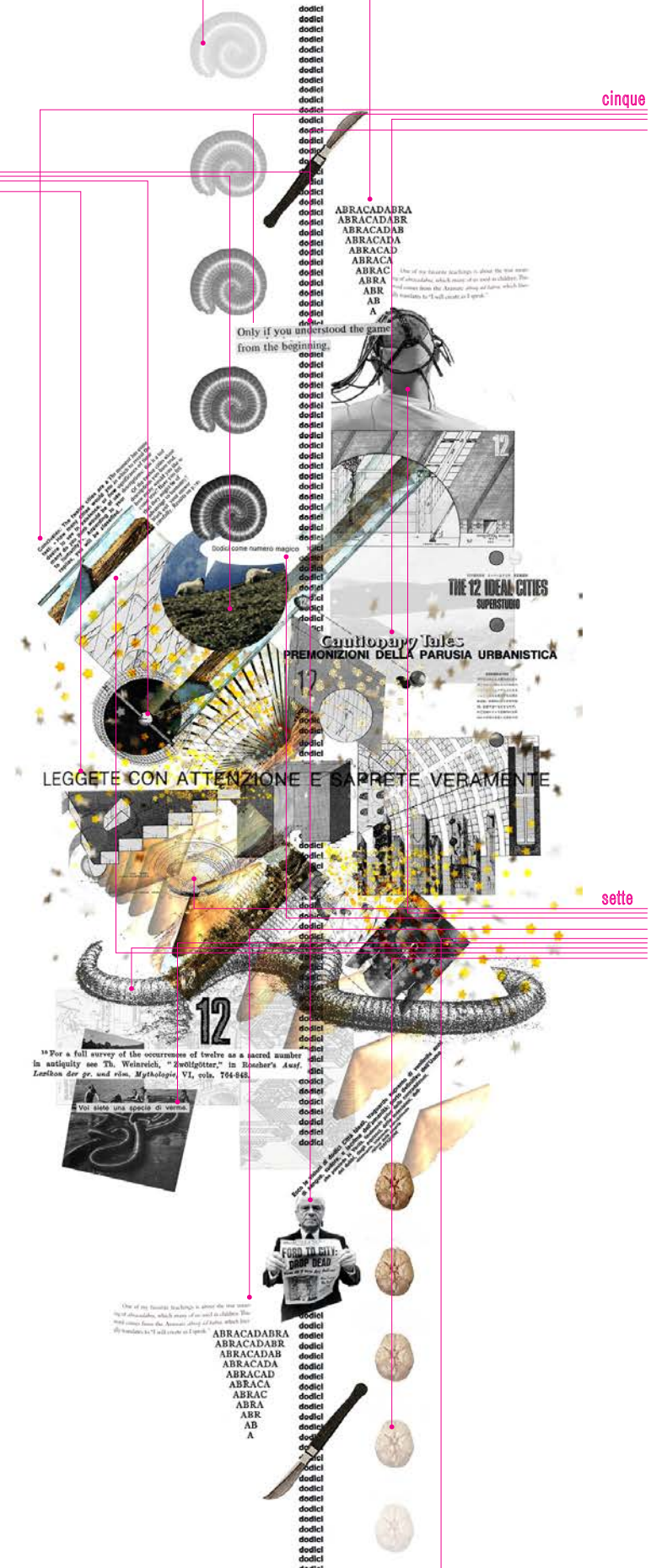
36 Mattias Gardell, *Gods of the Blood: The Pagan Revival and White Separatism* (London: Duke University Press, 2003).

37 Superstudio, 'Twelve Cautionary Tales for Christmas', (p. 738).

38 Sutcliffe, 'Magic: A Gramarye for Artists', (p. 19).

Sure, you're just as confused as anyone right now—like those forever chemicals??? don't think at all.

It would be better if you didn't think at all.



cinque You don't recall anyone ever saying that there'd be a test. If they had, you would have received top marks. You're sad that there's no way to tell anyone that.

sette You know that it's just a matter of turning that frown upside down and dancing like no one's watching. Magic sure does happen. Good for you, champ.

Let's not dwell on who is a "horrid evocation of hell," a "zombie," a "robot," or even those "demons or monsters that infest the earth"—that's such a Capricorn thing to do.

Sette

YOU HAVE ALREADY BEEN REBORN.

You know that it's just a matter of turning that frown upside down and dancing like no one's watching. Magic sure does happen. Good for you, champ. Let's not dwell on who is a "horrid evocation of hell", "a zombie", "a golem", "a worm", "a robot", or even those "demons or monsters that infest the earth" —that's such a Capricorn thing to do.

Throughout each published incantation of *Le dodici città ideali*, the project title was reshaped, folding in further references and layers of meaning. What was initially 'The 12 Ideal Cities' in 都市住宅 (*Toshi-Jutaku*), had become 'Twelve Cautionary Tales for Christmas: Premonitions on the Mystical Rebirth of Urbanism' in *AD* by the end of that year. When the project next appeared in *Casabella* as 'Premonizioni della parusia urbanistica', the number twelve briefly disappeared from the project title (due to the once-off inclusion of a mysterious thirteenth city), while the notion of a 'mystical rebirth' was linked to the more biblical term 'parousia' and its association with the second coming of Jesus Christ.

These early iterations of the project hint at subtle but important reframings of the work in each case. When translated into German in 1972, the 'twelve cautionary tales' appeared as 'three warnings' (*drei Warnungen*). The only other version of the project title to use the term 'parousia' was published in Greek within Αρχιτεκτονικά Θέματα (*Architektoniká Thémata*), returning to the etymological origin of the word: Παρουσία, meaning 'presence' or 'arrival'. Despite this, the abridged English text included in the article described this as 'mystical rebirth', as did the two-part French version of the project that was published in *Cree* in 1973 and 1974 as *renaissance mystique*.

Only three of the incantations: 都市住宅 (*Toshi-Jutaku*), *Casabella*, and Αρχιτεκτονικά Θέματα (*Architektoniká Thémata*) thread a series of quotations within the epilogue's judgements. Of particular interest here is the inclusion of a short excerpt from John Donne's *Deaths Duell*, the last sermon delivered by Donne as Dean of St Paul's Cathedral in 1631: 'for this whole world is but an universal church-yard, but our common grave, and the life & motion that the greatest persons have in it, is but as the shaking of buried bodies in their grave, by an earth-quake.' Life is framed in this passage as death and, more specifically, a series of seven deaths — "*Hebdomada mortium*, a weeke of

death" — from which we emerge in an increasingly deteriorated state until our final death, which offers a form of release.³⁹

Written and delivered by the author when terminally ill and facing his imminent death, it is, as Piotr Plichta has noted, 'one of the most unusual sermons penned by John Donne. It has a highly refined structure and contains a vast number of alchemical terms which seem to be carefully arranged within the body of text.'⁴⁰ Jonquil Bevan's earlier analysis of the text has also emphasised the sermon's deliberate structure, linking Donne's paragraph structure to connect to the arc of the Christian Holy Week and its salvific message.⁴¹

Otto

YOU ONCE KNEW A GIRL WHO TOLD LIES AND WAS BURNED TO DEATH.

You thought you saw the thirteenth city. Cities don't just disappear, though. They don't reappear either. Somewhere deep down, you know that.

Le dodici città ideali is often described as a series of short stories initially written by Gian Piero Frassinelli during 1971 in order to summon visions from within the depths of *Il monumento continuo*.⁴² The sci-fi references in *Le dodici città ideali* allow for an acknowledgement of outer space imaginaries in the development of Superstudio's work. Introducing the project through the textual origins of the work and Frassinelli's

³⁹ Donne. *Deaths Duell*, (p. 11).

⁴⁰ Piotr Plichta, 'Body of Death Versus Godhead: Alchemical Imagery and the Emblematic Structure of John Donne's *Death's Duell*', *International Journal of Arts & Sciences* 8 (2015), (p. 177). Plichta's text connects Donne's sermon to three "monuments" commissioned by Donne in the lead up to his death: a gift of golden rings with heliotrope, the delivery of the sermon, and the now well-known deathly portrait of him in a shroud by Martin Droeshout.

⁴¹ Jonquil Bevan, 'Hebdomada Mortium: The Structure of Donne's Last Sermon', *The Review of English Studies* 45 (1994), pp. 185-203.

⁴² Frassinelli recalls that the development of *Le dodici città ideali* involved a slow process of 'embedding' his interests into the work of the collective as he transitioned from a drafting position to become a member of the group: 'When I began to talk about topics relating to anthropology, which at first were mainly concerned with what was happening inside the Continuous Monument, the partners' response was mainly resistance, at times even hilarity. They teased me when it came to these topics. No one there had seen my thesis. I had been employed as a draftsman. During the first year I executed what they assigned me. Later, I slowly began embedding anthropological themes into the work. I was not actually considered a member of Superstudio until after I wrote the *Twelve Ideal Cities* in 1972.' Gianfranco Bombaci, Matteo Costanzo and Gian Piero Frassinelli. 'Architecture as a Collective Legacy', in *Legacy: Generations of Creatives in Dialogue* ed. by Lukas Feireiss (Amsterdam: Frame, 2018), (p. 143). See also Gabriele Mastrigli, *Superstudio Opere 1966-1978* (Macerata: Quodlibet, 2016); Prina. 'Superstudio's Dystopian Tales: Textual and Graphic Practices as Operational Method'. For an introduction to *Le dodici città ideali* that foregrounds magical practice, see the short text by Luca Galofaro. 'Ideal/Ideali: Serpent Ritual. Superstudio and The Twelve Ideal Cities', *Vesper* 6 (Spring-Summer 2022), p. 160-169.

anthropological and sci-fi inflected outer space imaginaries neatly positions the cities within the broader arc of Superstudio's practice. At the same time, however, this framing can't completely account for the longer, unruly, incanted manifestations of the *Le dodici città ideali* and both their textual and visual narrative operations as cautionary tales. Such acts of bricolage and photomontage recall Khensani de Klerk's more recent insistence on their tooling as resistance against controlling images. As she explains in an essay on erasure in architecture:

The contextual challenge of bringing visibility to that which remains invisible in architectural historiography is a matter of how our conceptualisations are currently archived. This remains only partially in our control as spatial practitioners, acknowledging the speed and magnitude of how digital media and the internet of things disseminate, monetise and organise our visual manifestations.⁴³

While de Klerk's text focuses on subverting Black women's marginalisation from the imagining of alternative futures, she also argues more broadly for revealing hidden histories via collage as 'a culmination of archival research and ethnographic approaches.'⁴⁴ So too, these seductive Superstudio photomontages maintain a currency beyond — and importantly, separate from — their initial publication. Dulmini Perera argues the illustrated admonishments that comprise *Le dodici città ideali* are better categorised as a *design practice* emerging from the paradoxical imagery, irrational logics and contradictory impulses of early 20th century children's literature. Those funny but alarming cautionary stories penned by the likes of Hilaire Belloc, Lewis Carroll and Dr Seuss do not work towards a logical conclusion in their telling but rather reshape their entire narrative context in unsettling and macabre forms. In fact, such cautionary tales were parodies of earlier popular literary styles: the 19th century 'moral education gore' typified by Heinrich Hoffmann's startling *Struwwelpeter*⁴⁵ and many oddities of medieval conduct disseminated in book

43 Khensani de Klerk, 'Resisting the controlling image: collage as a subversive tool' *The Architectural Review* (2021) <<https://www.architectural-review.com/essays/resisting-the-controlling-image-collage-as-a-subversive-tool>> [Accessed 02 February 2023], (n.p.).

44 de Klerk, 'Resisting the controlling image', (n.p.).

45 Dulmini Perera, 'Cautionary Tales of a Whacky Kind on the Uses of a Design Imagination That Avoids Consensus', *Journal Of Architectural Education* 75 (2021), pp. 325-28; Ruth Graham, 'And Then Giddy Helen Drowned in a Well: A Halloween Slide Show History of Cautionary Tales for Children', *Slate*, 28 October (2011) <http://www.slate.com/articles/double_x/doublex/2011/10/halloween_slide_show_a_short_history_of_cautionary_tales_for_chi.html> [Accessed 29 November 2022].

form.⁴⁶ They cannibalised European folk traditions that had been shared orally for generations, and relied on the storyteller's ability to conjure an immersive pedagogical space through theatrical utterances that were also rich enough for performing complex existential questions.⁴⁷ Instruction, invocation, and immersion all serve to project futures but, again, we need to temper a tendency to fetishise mystical voices. Superstudio prompt us to remember that what is taken for 'caution' easily slips into co-option and corruption: 'You have killed your doubts in order not to be killed by them, and you have died with them anyway.'⁴⁸

Frassinelli and Superstudio's interest in anthropology is evident in three incantations of *Le dodici città ideali*, which include quoted material within the epilogue text and most notably through the excerpt from Melville J. Herskovits' *Life in a Haitian Valley* (1937).⁴⁹ A quote from the chapter, 'Magic, Good and Bad' discusses the ability for people whose spirits have been captured as *Zombis* to be transformed by those who control them into animals to be sold for meat at market: 'A *ganga* who keeps a *zombi* may transform him into a stone, perhaps in front of his house, or into any kind of animal. Transforming him into a pig or sheep or cow, he may kill him and sell him in the market.'⁵⁰ Beyond connections to the categorisation of those who thought that 9 or more cities would be beneficial to society as 'cursed zombies', this text also acts as its own cautionary tale: warning of the distance between the voices of people who hold knowledge within their culture, and those who simply retell and publish this knowledge. Referring to Herskovits' text, the excerpt is in fact a quotation from the work of another American anthropologist and folklorist, Elsie Clews Parsons.⁵¹ Writing in the 1920s, Clews Parsons was discussing information shared by the Haitian community about people unwittingly eating others, noting that this is explained through the process of people being transformed into animals.

46 For a collection of popular moral conduct books in popular circulation from the 12th to 16th centuries, refer to *The Babees book: Aristotle's A B C, Urbanitis, Stanspuer ad mensam, the lytille childrenes lytil boke; The bokes of nurture of Hugh Rhodes and John Russell; Wynkyn de Worde's Boke of keruyng; The boke of demeanor; the boke of curtasye; Seager's Schoole of vertue, &c., &c.; with some French and Latin poems on like subjects and some forewords on education in early England*, ed. by Frederick James Furnivall (London: Trübner, 1868).

47 David Lewin, 'Between Horror and Boredom: Fairy Tales and Moral Education', *Ethics and Education* 15 (2020), pp. 213-31.

48 Superstudio, 'Twelve Cautionary Tales for Christmas', (p. 785).

49 Melville J. Herskovits, *Life in a Haitian Valley* (1937).

50 Melville J. Herskovits, *Life in a Haitian Valley* (New York: Octagon, 1964), (p. 246).

51 Elsie Clews Parsons, 'Spirit Cult in Hayti', *Journal de la Société des Americanistes de Paris*, XX (1928), pp. 157-79. Clews Parsons (b. 1875, d. 1941) was a feminist activist and field researcher, who had also helped found The New School in 1917 alongside Thorstein Veblen, Charles Austin Beard, and James Harvey Robinson.

Here Clews Parson, makes a point of observing that such stories have the potential to contribute to substantial misconceptions when shared with an inattentive or inexperienced listener—one must listen carefully in order to avoid perpetuating misunderstandings about the practice of cannibalism in this context.

At around the same time, the pioneering anthropologist Bronislaw Malinowski was studying Trobriand Islander practices of incantation ('*megwa*') in Papua New Guinea and famously concluded that the chanting of a spells' words were the critical agent in producing the supernatural, more so than the resulting conjured spirits who performed the acts: 'This power is an inherent property of certain words, uttered with the performance of certain actions.'⁵² Malinowski's *Argonauts of the Western Pacific* (1922) and his other later texts on magic became foundational for the study of the supernatural in the 20th century but more recent scholarship, including that co-produced with Trobriand Islander communities, contests constructing a binary between the chant and those who are brought back into being through chanting. They argue Malinoswki's insistence on incantation as depersonalised inscribes Western bias into the practice by questioning whether the otherworldly exists or not. Instead, they emphasise — in common with many Pasifika and Melanesian cultures — that the dead are as much a part of our society as the living, and 'sacred powers are conceived as being immanent in all manifestations of reality'.⁵³

Nove

YOU HAVE SEEN THE THIRTEENTH CITY.

You've come too far to turn back.

There are a series of subtle differences across the multiple incantations of *Le dodici città ideali*. Most relate to the configuration of the city descriptions in relation to text revealing that the cities are a litmus test framed as epilogues, quiz results, or conclusions. The third published incantation, which appeared in *Casabella* in 1972, is the only version of the project to mention a thirteenth city. The Thirteenth City is transparent or invisible: 'its

⁵² Bronislaw Malinowski, *Argonauts of the Western Pacific* (London: Routledge & Kegan Paul, 1922), p. 427. See also Bronislaw Malinowski, *Magic, science and religion and other essays* (Westport: Greenwood Press, 1948); Bernd-Christian Otto & Michael Stausberg, *Defining Magic: A Reader* (London: Taylor & Francis, 2014); and Mark Mosko, 'Malinowski's magical puzzles: Toward a new theory of magic and procreation in Trobriand society', *HAU: Journal of Ethnographic Theory* 4 (2014), pp. 1-47.

⁵³ Mosko, 'Malinowski's magical puzzles', p. 9.

form and dimensions are indefinite and unknowable.'⁵⁴ Superstudio explain that fragments and details about the city are reconstructed through the memories and hopes of the people who gather in a large field, believed to be the site of the city's disappearance.

The presence of 'those who used to live and those who will live'⁵⁵ in the invisible Thirteenth City in the field, suggests that it is possible to leave, and to one day enter this city. At the same time, the slow task of tracking the city largely through the interpretation of site data and descriptions of those who have been there, reveals a story distorted by hope and the slipperiness of distant memories. The Thirteenth City — a prologue — immediately flattens time inside and outside the story, for both the characters and the reader, placing the twelve cities within the empty field. Is each city a compilation of the fragments and clues assembled by those in the field: 'We return the data that you gave us', also translated as 'This is an information feedback.'⁵⁶ That is to say, all of these cities may be nothing more than random found objects tenuously held together by hazy reflections and a deep sense of longing for another kind of life.

Dieci

YOU DON'T HAVE TIME FOR ALL OF THIS.

You saw the priest but you didn't take his hat.

Le dodici città ideali is often discussed as if it were a static project, exhibited and published in 1971. Occasionally, the project's 'reprinting' is acknowledged, suggesting the presence of a consistent format across a number of architectural publications. To some extent — and with the notable exception of the Thirteenth City in *Casabella* — the repetition of images and city descriptions conceals a level of variation and reformulation in the epilogue texts. Appearing as a cautionary tale, warning or premonition, the cities are introduced as stories made up to scare people, or eerie sensations of foreboding. The moment invariably comes, however, when the cities' apparently fictional dimensions are stripped away. They come into sharper focus as we become less recognisable in the 'hour of revelation' when 'the game' is played out. And so the incantations of *Le dodici città ideali* describe

⁵⁴ Superstudio, 'Premonizioni della parusia urbanistica : Ecco le visioni di dodici città ideali' (p. 49).

⁵⁵ Superstudio, 'Premonizioni della parusia urbanistica : Ecco le visioni di dodici città ideali' (p. 49).

⁵⁶ Superstudio, 'Premonizioni della parusia urbanistica : Ecco le visioni di dodici città ideali' (p. 49).

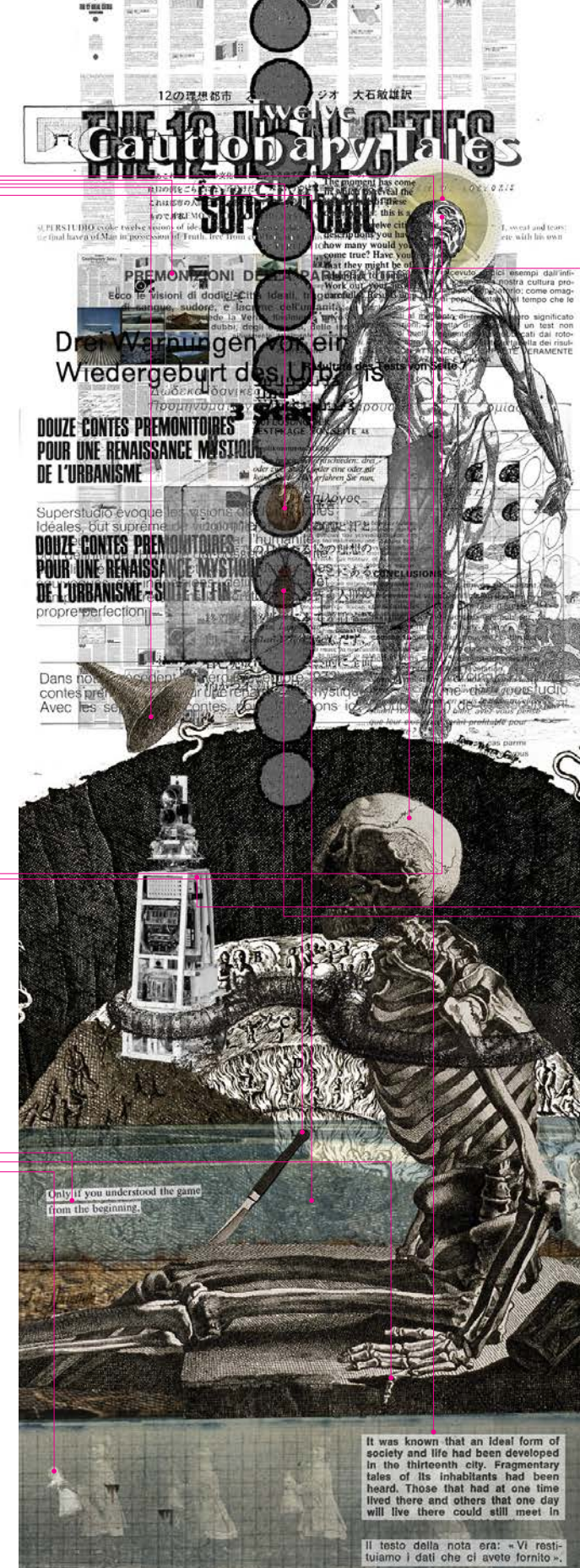
the conditions of the present, over and over again, with each city and through each new publication.

As if a book of spells for architects, the text acts as a purification ritual. We are sent out into the world to slay demons and vanquish monsters in order to bring about the “new City of the White Walls”, before finding ourselves back at the start once again: imagining ideal cities and failing the test. Only in the first publication of the project is the epilogue bookended by quotes that call forth images of Jerusalem. Opening with the words of Kathleen Mary Kenyon in *Digging up Jericho* (1957) and Werner Keller’s *The Bible as History* (1955), and closing through Adolf Loos’s *Ornament and Crime*: ‘Behold, the time is at hand, fulfilment awaits us. Soon the streets of the cities will glow like white walls! Like Zion, the Holy City, the capital of heaven.’⁵⁷ References to Jerusalem and those who would call it the oldest city and a holy city serve as a reminder of the power of the idea of the city and influence of such notions of ‘the ideal’.⁵⁸ A decade later, in relation to Superstudio’s proposal for the Western Wall Plaza and the 1982 Israel Museum exhibition, *Metaphors and Allegories: Superstudio, Firenze, 1982*. Adolfo Natalini explained his attachment to the city as a kind of temporal condition: ‘To me, Jerusalem is more a category of experience than a geographic location. To an outsider, Jerusalem is the eternal city. I think its sense of eternity is stronger than its physical reality.’⁵⁹ This search for this sense of eternity will always lead to forgetting, and back to the start of *Le dodici città*, to the field where the Thirteenth City is believed to have vanished, and to stories of ideal cities.

57 This quote from Loos’ 1910 lecture, which was first published in French as ‘Ornement et Crime’ in *Les Cahiers d’aujourd’hui* in 1913, concludes *Le dodici città ideali* as it appeared in 都市住宅 (*Toshi-jutaku*), *Casabella*, and Αρχιτεκτονικά Θέματα (*Architektonika Themata*). Adolf Loos. ‘Ornament and Crime’, in *Programs and Manifestoes on 20th-Century Architecture*, ed. By Ulrich Conrads (Cambridge, Mass.: MIT Press, 1970), (p. 19).

58 Refer to foundational texts like Lewis Mumford, ‘What is a City’, (first published in *Architectural Record*, 1937) *The City Reader*, ed. by Richard T. LeGates and Frederic Stout (London: Routledge, 2011), pp. 91-95, and Helen Rosenau, *The Ideal City: Its Architectural Evolution* (Routledge & Kegan Paul, 1959), as well as contemporary critique such as Marcus Folch, ‘Unideal Genres and the Ideal City: Comedy, Threnody and the Making of Citizens in Plato’s Laws’, in *Performance and Culture in Plato’s Laws*, ed. by Anastasia-Erasmia Peponi (Cambridge: Cambridge University Press, 2013), pp. 339-360.

59 Adolfo Natalini, ‘Introduction’, *Metaphors and Allegories: Superstudio, Firenze* (Jerusalem: The Israel Museum, 1982), exhibition catalogue (n.p).



You thought you saw the thirteenth city.
 Cities of You thought you saw the
 They don't reappear either.
 Cities don't just disappear,
 Somewhere deep down, you know that.

nove You've come too far
 to turn back.

You saw the priest
 but you didn't take his hat.
 You saw the priest
 but you didn't take his hat.

undici You did, or you didn't?
 This, or that?

Yes, you.
 Couldn't be?
 Then who?
 Yes, you.
 Couldn't be?
 Then who?

It was known that an ideal form of society and life had been developed in the thirteenth city. Fragmentary tales of its inhabitants had been heard. Those that had at one time lived there and others that one day will live there could still meet in
 Il testo della nota era: «Vi restituiamo i dati che ci avete fornito».

Undici

YOU DIDN'T COME HERE TO BE INSULTED.

You did, or you didn't? *This*, or that?

Across the versions of *Le dodici città ideali*, an ideal human is seen magically transformed through many 'transpersonal and transworldy'⁶⁰ experiential realities, variously as a plant, undead person, rotating cog, slave, a zero, robot, pig, automatic doll, literally 'white', hermit, ovum, spermatozoa, foetus, newborn baby, a brain, one of 10,000,456 brains, an evolving dream, lifeless body, mechanical uterus, an immobile individual, hemispherical sensory apparatus, famous person (living or dead), a selected 'character', 1st-class coffin, part of a Great Family, director, shareholder, man living inside a cupola, mayor, model citizen, town councillor, head of state, the Old Man of the Mountain, a child, empty shell, something not human, golem, succubus, worm, and maggot.

Likewise, writing about 'corrupt objectivity' in Franz Kafka's novel, *Die Verwandlung* (The Metamorphosis), Fernando Bermejo-Rubio argued there are multiple versions of Gregor Samsa's story of transformation at play.⁶¹ In one, Gregor is remade as a giant insect and must rely on his family to survive; in the second, his experience of living with a serious health condition and his long-term care needs make him feel like such a monstrous creature and a burden on those around him. In the second reading, Gregor's transformation into a large cockroach or beetle occurred in his own mind and brought with it a horror that peeled back the veneer of politeness and sense of obligation draped over his difficult circumstances. Similarly, in the sorting and judgements of the final pages of the incantations of *Le dodici città ideali*, the reader 'awakes' from 'troubled dreams' of the cities to find that they are, in turn, the undead, a monster, or simply a machine.⁶² Embedded in this process of magical transformation is the revelation Superstudio promised and Bermejo-Rubio's work underlines the comparably concealed nature of the multiple readings of *Die Verwandlung*, explaining that Kafka 'composed

60 Lycourinos, quoted in Johnston 'Binding Images: The Contemporary Use and Efficacy of Late Antique Ritual Sigils, Spirit-Beings, and Design Elements', (p. 127).

61 Fernando Bermejo-Rubio, 'Truth and Lies about Gregor Samsa. The Logic Underlying the Two Conflicting Versions in Kafka's *Die Verwandlung*', *Deutsche Vierteljahrsschrift für Literaturwissenschaft und Geistesgeschichte* 86 (2012).

62 Three versions of *Le dodici città ideali* quote part of the opening sentence of Kafka's *Die Verwandlung*: "... eines Morgens aus unruhigen A Träumen erwachte, fand er sich in seinem Bett zu einem ungeheuren Ungeziefer verwandelt." ("...woke one morning from troubled dreams to find himself transformed in his bed into a monstrous vermin."). Franz Kafka. *Die Verwandlung* (Leipzig: K. Wolff, 1917), 5.

a narration in which the truth will go unnoticed by a reader inattentive to detail'.⁶³ In other words, as *Le dodici città ideali* instructs us all, 'read carefully and you will know who you really are.'

Dodici

WHERE DO YOU THINK YOU'RE GOING?

Yes, you. Couldn't be? Then who?

In September 1972, after the first four iterations of *Le dodici città ideali*, Superstudio published a short piece 'Utopia, Antiutopia, Topia' within issue 7 of *In: Argomenti e immagini di design*, responding to the issue's theme: 'Distruzione e riappropriazione della città' (Destruction and reappropriation of the city).⁶⁴ An unofficial companion piece of sorts to the unfolding *Le dodici città ideali*, as Gabriele Mastrigli has observed, this text further explains the collective's ambitions to unmask the conditions of the present through anti-utopias.⁶⁵ Asserting that 'only in horror is there hope', Superstudio once again conjures the underworld (here through references to Lago d'Averno and 'infernal demons'), monsters, magic, drugs and Kafka's *Metamorphosis*:

In anti-utopia we feed the little monsters that creep and coil in the dark recesses of our homes, in the dirty corners of our streets, in the folds of our clothes and even in the mystery of our brains.

In the cradle of anti-utopia we try to make them grow until they become enormous, and dust and darkness can no longer hide them, so that everyone, even the most shortsighted, can see them, enormous Kafkaesque cockroaches, in all their monstrosity. We therefore refuse to cultivate utopias, impossible hissing flowers without perfume, fragile and delicate to be kept under glass bells. Instead, we prefer to be shepherds of monsters; evoking them from within our magical circle, we take care of them and feed them so that they become big and run around. Because we know that our terrible monsters are made only of smoke while the fragile red flower that utopians cultivate is like the poppy that hides the white latex of sleep in its corolla; and that really scares us.⁶⁶

63 Bermejo-Rubio, 'Truth and Lies about Gregor Samsa', (p. 463).

64 Superstudio, 'Utopia, Antiutopia, Topia', (p. 42).

65 Mastrigli, *Superstudio Opere 1966-1978*, (p. LXVI).

66 Superstudio, "Utopia, Antiutopia, Topia", (p. 42, translation by the authors).

CODA

Twelve cities, premonitions, truths, stories. A set of repeated warnings and lessons recited in the pages of popular architectural media fifty years ago and we still don't recognise all the words. *Repeat after me*: twelve is a magic number, read with care, all will be revealed. Twelve cities, premonitions, truths, stories. Twelve are the full lunations in a solar year, and number of signs in both the Western and Chinese zodiac. The Olympian gods of the pantheon number twelve; as do the labours of Hercules, sons of Odin, names of the monkey god Hanuman, Knights of the Round Table, petals of the heart chakra, books of *The Aeneid*, citizens of a jury, and all men who have walked on the moon. Such numbers haunt transformation and transfiguration — of the universe and worlds, control and bewitchment, design and meaning — and reveal an architectural mesmerism that ensnares humans, nonhumans, and the inhuman in all cities alike. Just as the incantations of *Le dodici città ideali*, so too do we refuse closed-off futures and continue to re-author the world through all available fragments. **The image and the outline⁶⁷ of Alessandro, Alessandro, Piero, Cristiano, Roberto, and Adolfo chant: 'From the horror of us and our surroundings, 'revelation' could spring.'**⁶⁸

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67 Superstudio, 'Twelve Cautionary Tales for Christmas' (p. 742).

68 Superstudio, 'Twelve Cautionary Tales for Christmas' (p. 785).

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Agostino Nickl

Matter Mutter: Talking Things

Introduction

Computation has thoroughly changed architectural practice. Today, rapidly evolving information technology — from artificial intelligence to augmented reality — seems to change the very world architecture addresses. Rather than watching from the sideline, architects can play an active role: exploring the architectonic task of building models. This essay questions how machine learning models can make us look at and listen to this world through the things within it — technical, digital, and, lately, vectorial. Without attempting to exhaustively review the plethora of thoughts versed on things and objects¹ and those problematising the vectorial world,² it aims to work through a demonstration: *Matter Mutter* is a recent experiment working with hundreds of three-dimensional scans of everyday things and thousands of poems. Over the course of the essay, it unfolds as a coded play, each stage inviting us to theoretically explore technical, digital, and vectorial modes of existence before lending seemingly prosaic things a poetic voice, and poetic verses a prosaic body.

The section 'Things and Poems' sets the scene, introducing how a corpus of scanned things and poems can shed light on the vectorial world we inhabit today. 'Towards the Hyperobject' traces possible modes of existence of five *thingly* protagonists on their journey of being transformed into words, numbers, and finally, a point in hyperdimensional space. Here, we draw on the philosophers Yuk Hui, Martin Heidegger, and Gilbert Simondon. The section 'Towards Talking Things', thematises the role of coding and modelling as digital architectonics. Encoded against language and self-organised in a mathematical model, we lose sight of things but hear them reveal some of their hyperdimensional existence. Finally, in 'Things and Architecture', we find ourselves closer to home as architects than expected after many philosophical and computational encounters. Referring to the work of Paul Valéry, we speculate on how to build with and among active hyperobjects.

¹ Contemporary approaches that should not go unmentioned are Graham Harman's Object-Oriented Ontology, Bill Brown's Thing Theory and Jane Bennett's Vibrant Matter, see: Graham Harman, *Object-Oriented Ontology: A New Theory of Everything*, Pelican Book, 18 (London: Pelican Books, 2018); Bill Brown, 'Thing Theory', *Critical Inquiry*, 28.1 (2001), 1–22 <<http://www.jstor.org/stable/1344258>> [accessed 30 November 2022]; Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham: Duke University Press, 2010).

² McKenzie Wark addresses notions of vectorial property and class, see: McKenzie Wark, *A Hacker Manifesto* (Cambridge, MA: Harvard University Press, 2004).

Things and Poems

Why does *Matter Mutter* work with things and poems? In *What is a Thing*, Heidegger decries how his contemporaries 'do not know the difference between a thing and a poem; [...] they treat poems as things, which they do because they have never gone through the question of what a thing is'.³ However, posing this very question, 'will become even more necessary when it turns out that the everyday things show still another face. That they have long done, and they do it for us today to an extent and in a way that we have hardly comprehended'.⁴ If only we opened our eyes, he suggests, we might answer what a thing really is and stop mistaking poems for things. Decades later, marked by information technology that afforded us a reality augmented by computation, we must ask: Does the distinction between poems and things still hold up, when both can be stored as information in a computer? And can we still trust our eyes to see things for what they really are?

A paradoxical interplay seems to haunt our contemporary condition. We have gained unprecedented access to realistically modelled, accurately scanned, or generatively rendered things to look at. We can turn a precious object, downloaded from a faraway museum, on its head swiping across a two-dimensional smartphone screen. We can walk around it as a three-dimensional print or as a hologram in augmented reality. We can see the object when and where we want: a veritable *hypervision*. However, we cannot see what might already augment the reality of any tangible object on our desk unless we point a smartphone app like Google Lens towards it.⁵ Such applications of artificial intelligence mainly operate in hyperdimensional spaces, lying well beyond our visible, three-dimensional world.⁶ Hyperdimensionality solicits a kind of *hyperblindness*, preventing us from appreciating a hidden relationality that the two objects — digital and tangible — might share. Both are *hyperobjects* (borrowing from, but slightly altering the original sense put forward by Timothy Morton).⁷

Heidegger's call to recognise the true face of things has not lost any of its urgency. But instead of attempting to look at them directly, we can today

3 Martin Heidegger, *What Is a Thing*, trans. by W. B. Barton and Vera Deutsch (Chicago: Henry Regnery Company, 1967), p. 52.

4 Heidegger, *What Is a Thing*, p. 12.

5 Google, 'Google Lens – Search What You See' <<https://lens.google/intl/en-GB/>> [accessed 22 December 2022].

6 Merriam-Webster.com Dictionary, 'Hyperdimensional', *Merriam-Webster* <<https://www.merriam-webster.com/dictionary/hyperdimensional>> [accessed 31 December 2022].

7 Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World*, Posthumanities, 27 (Minneapolis: University of Minnesota Press, 2013).

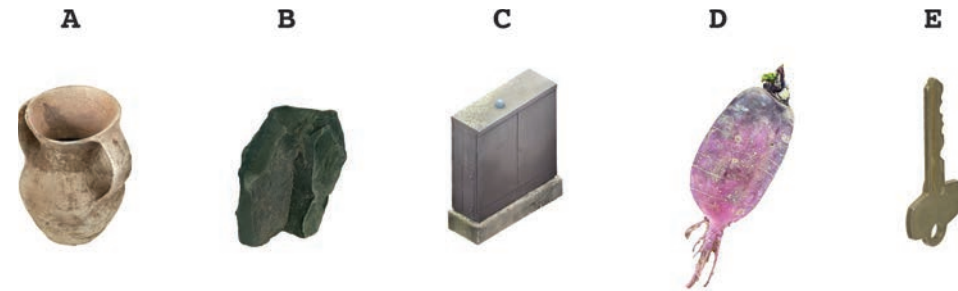


Figure 1.

The jug, the rock, the electricity cabinet, the radish and the mortar. Uploaded to Sketchfab by PTV, uttamg911, Nicolas Diolez, Peter Katz, Laser Design. Image by the author, attributions listed below.

face them with code.⁸ Rather than asking what a thing is outright, we can perhaps embrace the very ontological indifference Heidegger decried. *Matter Mutter* deliberately takes thousands of poems and hundreds of scanned things as its subjects. The poems featured in this experiment are a subset of online poetry data from *Kaggle*,⁹ a platform hosting various datasets for data science and artificial intelligence projects, while scanned things are gathered from *Sketchfab*,¹⁰ a platform offering three-dimensional models for download. In the following, we will accompany five of the latter on their journey from things to natural, technical, and digital objects towards vectorial hyperobjects: a jug, a rock with high iron content, a slightly weathered electrical cabinet from Paris, a purple radish, and a brass key (Figure 1). If such diverging things can indiscriminately share a mode of existence in hyperspace with poems, then everything might.

Towards the Hyperobject

From Thing to Object

March 2022: @christaber uploads the jug (Figure 1 A)¹¹

Is the jug, the first protagonist of *Matter Mutter*, an object, or a thing? Hui summons two experts to consult on the matter — Heidegger and Simondon.¹² According to Heidegger, it is 'a vessel, something of the kind that holds something else within it'.¹³ In standing independently, the jug 'differs from

8 Ludger Hovestadt, 'In Conclusion: What Is Information?', in *Atlas of Digital Architecture: Terminology, Concepts, Methods, Tools, Examples, Phenomena*, ed. by Ludger Hovestadt, Urs Hirschberg, and Oliver Fritz (De Gruyter, 2020), pp. 693–722 (p. 714) <<https://doi.org/10.1515/9783035620115>>.

9 'Kaggle: Your Machine Learning and Data Science Community' <<https://www.kaggle.com/>> [accessed 27 March 2023].

10 Sketchfab, Inc., 'Sketchfab - The Best 3D Viewer on the Web', *Sketchfab* <<https://sketchfab.com>> [accessed 29 December 2022].

11 PTV, 'PTV', *Sketchfab*, 2022 <<https://sketchfab.com/3d-models/ptv-79419cd2140649258478ed001f2fb9f7>> [accessed 29 December 2022].

12 Yuk Hui, *On the Existence of Digital Objects*, *Electronic Mediations*, 48 (Minneapolis: University of Minnesota Press, 2016), pp. 165, 166.

13 Martin Heidegger, *Poetry, Language, Thought*, trans. by Albert Hofstadter (New York: Perennial Classics, 2001), p. 164.

an object'¹⁴ and holds that which is poured in and out — it gathers. But this might be less about its role as a jug than its role as a thing: 'The thing things. Thinging gathers',¹⁵ he continues with a nod towards an old use of the term *thing* — *dinc* in Old German.¹⁶ 'The jug is a thing insofar as it things'.¹⁷ Or should we better say, it *thinged*? For Heidegger, we cannot help but make the jug immediately 'an object if we place it before us, whether in immediate perception or by bringing it to mind in a recollective re-presentation',¹⁸ but hereby 'the thingness of the thing remains concealed, forgotten'.¹⁹ Long forgotten indeed, might interject Simondon, is the privileged role of things as 'points of exchange between the being and the milieu'²⁰ in a pre-objective, magical universe, 'a network of places and of things'.²¹ This magical relation to the world was ruptured by the emergence of religion and technics, leaving behind instead subjects and objects.²²

Whether in the moment *@christaber's* put the jug on the table to meticulously scan it, at the instant it was represented in this very journal, or already a long time ago — *@christaber's* jug might not be a thing after all, but an object.

The Natural Object

December 2021: *@peterkatz* uploads the radish (Figure 1 D)²³

April 2022: *@uttamg911* uploads the rock (Figure 1 B)²⁴

From its description, we learn that *@uttamg911* took the rock as a souvenir from Moab, Utah — a popular spot for hiking, cycling and rafting through a rocky, arid landscape.²⁵ What made them scan this exact rock as they were passing it? What made *@peterkatz* select this exact radish in a supermarket

14 Heidegger, *Poetry, Language, Thought*, p. 164.

15 Heidegger, *Poetry, Language, Thought*, p. 172.

16 Hui, *On the Existence of Digital Objects*, p. 36.

17 Heidegger, *Poetry, Language, Thought*, p. 175.

18 Heidegger, *Poetry, Language, Thought*, p. 165.

19 Heidegger, *Poetry, Language, Thought*, p. 168.

20 Gilbert Simondon, *On the Mode of Existence of Technical Objects*, trans. by Cécile Malaspina and John Rogove (Minneapolis, MN: Univocal Publishing, 2017), p. 177.

21 Gilbert Simondon, p. 178.

22 Gilbert Simondon, p. 177.

23 Peter Katz, 'Purple Radish', *Sketchfab*, 2021 <<https://sketchfab.com/3d-models/purple-radish-70033a7ee305491eb9c67813a3395c1a>> [accessed 29 December 2022].

24 uttamg911, 'Day 222: Mineral of Iron', *Sketchfab*, 2022 <<https://sketchfab.com/3d-models/day-222-mineral-of-iron-abfc49e8361048adacb7c6be3b6250ab>> [accessed 29 December 2022].

25 Grand County Economic Development, 'Things To Do In Moab' <<https://www.discovermoab.com/attractions/>> [accessed 7 December 2022].

aisle? At some point, both objects must have caught the users' eyes, making them stop and pick them up; at this moment, each of them becomes an 'object of experience',²⁶ an 'object for consciousness',²⁷ or what Heidegger might call a 'present-at-hand'.²⁸ Turning it in their hands, *@uttamg911* might have described the rock as a bearer of properties – along the lines of 'a rock – it is hard, gray, and has a rough surface; it has an irregular form, is heavy, and consists of this and that substance'.²⁹ However, caution is warranted when trusting such a self-evident, *natural* way of seeing things: 'What was natural to a man of the eighteenth century, [...] would have seemed very unnatural to the medieval man [...]. The "natural" is always historical.'³⁰ The rock, as much as the radish, cannot escape becoming a natural object if we cannot unlearn to see it naturally. Following Hui, even the bike with which *@uttamg911* might have brought the rock home remained a natural object if looked at 'in the same natural manner'.³¹ But these natural, intuitive, and self-evident schemes soon turn out to be insufficient when technology comes into the picture.

The Technical Object

February 2022: *@nicolazdiolez* uploads the electrical cabinet (Figure 1 C)³²

December 2021: *@laserdesign* uploads the small key (Figure 1 E)³³

Viewing an electrical box or a key as natural objects seems inappropriate. In fact, 'one must avoid the improper identification of the technical object with the natural object',³⁴ warns Simondon. Rather than describing the electrical cabinet as a natural bearer of properties, we could attempt to grasp it through its matter and form — as a steel box. However, despite being an intuitive choice to characterise any artificial object, following such a *hylomorphic schema* falls flat when considering the complex industrial process and the composite character of the electrical cabinet.³⁵ Apart from its base made from concrete, it has hinging doors, multiple locks, and a

26 Hui, *On the Existence of Digital Objects*, p. 6.

27 Hui, *On the Existence of Digital Objects*, p. 213.

28 Hui, *On the Existence of Digital Objects*, p. 16.

29 Heidegger, *What Is a Thing*, p. 32.

30 Heidegger, *What Is a Thing*, p. 39.

31 Hui, *On the Existence of Digital Objects*, p. 5.

32 Nicolas Diolez, 'Electric Box', *Sketchfab*, 2022 <<https://sketchfab.com/3d-models/electric-box-photogrammetry-8d7774bce0c44e8c84fcbfc84d866e7c>> [accessed 29 December 2022].

33 Laser Design, 'Key 3D Scan Version 1 - Download Free 3D Model by Laser Design', 2021 <<https://sketchfab.com/3d-models/key-3d-scan-version-1-236cab2dd9f14185a6cd48f743da4369>> [accessed 7 January 2023].

34 Gilbert Simondon, p. 50.

35 Hui, *On the Existence of Digital Objects*, p. 62; Gilbert Simondon, p. 248.

rough coating, presumably to protect it from vandalism. Even if we were to enumerate all these elements as separate, hylomorphic objects, we would not account for the mill milling the steel doors, the machine machining the precise lock mechanisms, the protective coat coating its outside. Even the key, made from one material, probably brass, would be nothing without the cutter on which it was cut and the lock it unlocks.

Simondon invites us to understand the technical object beyond form and matter. Considering its elemental parts and the larger ensemble that it partakes in, he highlights its existential relation to its 'associated milieu'.³⁶ But also for our own relation to the world, the technical object is instrumental. Since the end of a pre-objective magical phase, 'the mediation between man and the world is objectivized as technical object just as it is subjectivized as religious mediator'.³⁷ Simondon calls on philosophical thought to turn this divergence towards convergence and reconcile culture and technics towards a reticulated universe.³⁸ Our modest key, together with technics as a whole, 'return to the world to ally itself with it through the coinciding cement and rock, of the cable and the valley, the pylon and the hill; a new reticulation establishes itself'.³⁹ Our electrical cabinet coincides with a street in some arrondissement while being part of an underground network feeding all of Paris with power. Like all other technical objects, it is a relational being in a reticular world; a world deemed lost since the time of pre-objective things.

The Digital Object

Simondon did not experience the dawn of a new, massively scaled, worldwide reticulation. He died one month before Tim Berners Lee submitted his proposal for a global hypertext system to the management of CERN.⁴⁰ Soon, it would evolve into the world-wide-web, bringing with it object-oriented programming and a wholly new kind of object: the digital object. After all, without a browser, we would not have come across things and poems forming the corpus of *Matter Mutter*. How did they get there?

@christaber, @uttamg911, @peterkatz, @nicolasdiolez, and @laserdesign did not geometrically model these objects; they scanned them, most

36 Gilbert Simondon, p. 59.

37 Gilbert Simondon, p. 177.

38 Gilbert Simondon; Hui, *On the Existence of Digital Objects*.

39 Gilbert Simondon, p. 193.

40 Simondon, 'Biography | Gilbert Simondon' <<http://gilbert.simondon.fr/content/biography>> [accessed 8 December 2022]; Tim Berners-Lee, 'The Original Proposal of the WWW, HTMLized', 1989 <<https://www.w3.org/History/1989/proposal.html>> [accessed 8 December 2022].

probably capturing them with a 3D scanning app using a combination of photography, photogrammetry and lidar. In the process, all our protagonists 'are formalized as objects through human agency and then recognized as objects by computers'.⁴¹ Now, they all share the status of digital objects, defined by Hui as 'objects that take shape on a screen or hide in the back end of a computer program, composed of data and metadata regulated by structures or schemas'.⁴² Reliant on the latter as their digital matter and form, digital objects again follow a hylomorphic tendency.⁴³ As users uploaded their scans to *Sketchfab*, they were prompted to add metadata, such as a title and description. The platform automatically generated other metadata — including upload time, geometric statistics, and file format — before the data was saved to the company's servers according to its database schema. Thanks to the digital objects' hylomorphism, we can easily search, select, and download 301 of them.

A commonly used format to store these objects is fittingly called *obj*. But it is just one of many ways of constituting digital objects. The scope of digital objecthood is as vast as the web. They include everything from text and image files, video and sound files,⁴⁴ to the poems we download from *Kaggle* as comma-separated values. Now, we can access the scans from our hard drive, place any of them as an asset into a video game engine, render them in modelling software or print them in 3D. We can display the poems on our screen, read them all, or sort them by title or author in a spreadsheet. But is this the best we can do?

Hui argues against letting the digital object's hylomorphic tendency limit our understanding of the digital object — which would happen if we went for such direct applications and representations.⁴⁵ Not unlike technical objects, digital objects are relational — embedded in networks and databases, they partake in a 'digital milieu'.⁴⁶ If they remained, however, locked in their schemas and formats, we would struggle to get to a point where we can treat things as poems, poems as things, and play with both. In the following, we will explore how to venture beyond the digital object's hylomorphic tendencies.

41 Hui, *On the Existence of Digital Objects*, p. 50.

42 Hui, *On the Existence of Digital Objects*, p. 1.

43 Hui, *On the Existence of Digital Objects*, p. 59.

44 Yuk Hui, 'What Is a Digital Object?', *Metaphilosophy*, 43.4 (2012), 380–95 <<https://doi.org/10.1111/j.1467-9973.2012.01761.x>>.

45 Hui, *On the Existence of Digital Objects*.

46 Hui, 'What Is a Digital Object?', p. 390.

The Vectorial Object

Rather than focussing on the relationality present in networks and databases, we will look closely at a process without which digital objects could not feature in machine learning. Machines learn with vectors, each scalar describing one of the object's features.⁴⁷ Already in 1958, Simondon stated that 'the machine cannot retain forms, but merely a translation of forms, by means of encoding in a spatial or temporal distribution'.⁴⁸ But there is no translation of forms without a formal, 'inter-objective language'⁴⁹, i.e. code. Wolfram Mathematica serves as our 'digital thought laboratory'⁵⁰ to encode digital objects to vectors, making them ripe for vector arithmetic and algebra. 'Things speak numbers',⁵¹ writes Michel Serres; if we want to listen to them, the digital object must become a vectorial object.

We load the jug (Figure 1 A) into Mathematica. We can encode it into a vector by describing it as 'a collection of features that have been quantitatively measured from some object'.⁵² Its size can be described through its width, height and depth, and its average colour in values of red, green, and blue. In both cases, we assign the jug a place within a three-dimensional feature space, which we can still easily imagine and visualise. Combining its size and colour would already call for six dimensions, capturing its precise shape and colour nuances many more. As we leave the familiarity of the three-dimensional world of everyday experience, the digital object becomes a point in an abstract 'meta-space that contains the summation of the potentials of all the objects which are constitutive for this meta-space'.⁵³ This shared reference space between all objects vectorised according to the same features is more relational than geometric: we can call it a vectorial milieu.

We just saw how the jug could be encoded based on properties such as colour, size, or any bundle of features or characteristics.⁵⁴ But how could we

47 Ian Goodfellow, Yoshua Bengio, and Aaron Courville, *Deep Learning*, Adaptive Computation and Machine Learning (Cambridge, Massachusetts: The MIT Press, 2016).

48 Gilbert Simondon, p. 136.

49 Michel Serres, 'Hermes 2 Interference', trans. by Randolph Burks (Randolph Burks, 2022), p. 84 <https://www.academia.edu/83937670/Hermes_2_Interference_by_Michel_Serres_translated_by_Randolph_Burks>.

50 Ludger Hovestadt, 'Writing & Code', in *Atlas of Digital Architecture: Terminology, Concepts, Methods, Tools, Examples, Phenomena*, ed. by Ludger Hovestadt, Urs Hirschberg, and Oliver Fritz (De Gruyter, 2020), pp. 369–97 (p. 380) <<https://doi.org/10.1515/9783035620115>>.

51 Serres, 'Hermes 2 Interference', p. 84.

52 Goodfellow, Bengio, and Courville, p. 99.

53 Miro Roman, 'Four Chairs and All the Others', in *EigenArchitecture*, by Ludger Hovestadt and Vera Bühlmann (Ambra Verlag, 2013), pp. 10–28 (p. 20) <<https://doi.org/10.1515/9783990436271.10>>.

54 Huan Liu and Hiroshi Motoda, *Feature Selection for Knowledge Discovery and Data Mining* (Boston, MA: Springer US, 1998) <<https://doi.org/10.1007/978-1-4615-5689-3>>.

ever encode a poem based on size or colour? Our way of encoding seems to still segregate based on natural *species* of digital objects. According to Heidegger, such a 'definition of the thing as the bearer of properties results quite "naturally" out of everyday experience'.⁵⁵ Trapped in 'an old historical tradition',⁵⁶ albeit at a different level of abstraction, we find ourselves again looking at the jug naturally. As much as the digital object is haunted by the hylomorphism arising from an intuitive understanding of artificial and technical objects, the vectorial object is haunted by the intuitive understanding of the natural object as a bearer of properties. We can only bring scans and objects together if we leave natural ways of seeing and intuitively imaginable dimensionalities behind.

The Vectorial Hyperobject

Leaving three-dimensional space, we struggle to see or render — we are blind. But, where our eyes fail, another faculty comes to the fore — language. In machine learning, models dealing with language are known for being exceptionally high-dimensional.⁵⁷ We can think of a vocabulary as a vast hyperdimensional space, each word being a dimension. A vectorial object encoded against the hyperdimensionality of any language, and by extension, thought, seems to be of another quality than one encoded based on properties such as size and colour. For now, we call such objects vectorial hyperobjects.

The development of machine learning is deeply intertwined with the field of natural language processing, which received a boost from deep artificial neural nets in the 2010s.⁵⁸ Now, powerful language models like generative pre-trained transformers drive machine learning sensations such as ChatGPT.⁵⁹ While the wealth of available online text fuelled the field of natural language processing, the ubiquity of images on the web drove the field of computer vision. Many leaps in machine learning relied on text-image pairs as training

55 Heidegger, *What Is a Thing*, p. 38.

56 Heidegger, *What Is a Thing*, p. 40.

57 Goodfellow, Bengio, and Courville.

58 Daniel W. Otter, Julian R. Medina, and Jugal K. Kalita, 'A Survey of the Usages of Deep Learning in Natural Language Processing' (arXiv, 2019) <<http://arxiv.org/abs/1807.10854>> [accessed 18 December 2022].

59 Thomas Wolf and others, 'Transformers: State-of-the-Art Natural Language Processing', in *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing: System Demonstrations* (presented at the Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing: System Demonstrations, Online: Association for Computational Linguistics, 2020), pp. 38–45 <<https://doi.org/10.18653/v1/2020.emnlp-demos.6>>; OpenAI, 'ChatGPT: Optimizing Language Models for Dialogue', *OpenAI*, 2022 <<https://openai.com/blog/chatgpt/>> [accessed 18 December 2022].

data. Over the last decade it became possible to synthesise text into images and turn images into text, for example by detecting objects in photographs.⁶⁰

To encode the jug into a hyperobject, we must first turn it into words (Figure 2). Unfortunately, we cannot rely on the metadata provided by the user alone – @christaber gave it the cryptic name *PTV*. If it were a single image, we could ask a deep neural net to output a range of probable concepts.⁶¹ But what is the right way to look at a three-dimensional graph rather than a two-dimensional graphic? Rather than making a choice, we render a sequence of 16 orthographic images rotating around the jug's X and Y axis and get probable concepts for each. However, selecting based on probability values alone will not do, as the neural net is very confident of seeing a cannonball from the bottom, a stele from the side, and a censer from the top. Instead, we code an algorithm to pick classifications that resonate more than average across all other viewpoints. In such a way, we reward continuous and coherent readings of the object. Rather than taking all views as 'united by being consciousness [sic.] of the "same thing"',⁶² we allow for many probabilistic concepts. PTV is not just a *jug* – it is an amphora, a flagon, a bottle, a jar, a bell, a cowbell, a container, and a vessel (see Figure 2). We can expand these terms by adding synonyms and a short dictionary definition. The resulting text is not a definitive description, pinning the digital object down. Being multiplied by rotation, picked through resonances, and arisen from probabilities, the words are a kind of circumscription, welcoming ambiguities and contradictions. All 3D scans are now a string of text – the same stuff poems are made from. It can easily be split into individual words, the 'fundamental units'⁶³ of many machine learning models playing with language. The jug must hold on to these gathered, taken words ('tokens')⁶⁴ to withstand its further, hyperdimensional adventures. Because from here onwards, the jug is nothing but a list of words.

60 Dave Gershgorin, 'The Data That Transformed AI Research—and Possibly the World', *Quartz*, 2017 <<https://qz.com/1034972/the-data-that-changed-the-direction-of-ai-research-and-possibly-the-world/>> [accessed 18 December 2022]; OpenAI, 'DALL-E: Creating Images from Text', *OpenAI*, 2021 <<https://openai.com/blog/dall-e/>> [accessed 18 December 2022]; Alex Krizhevsky, Ilya Sutskever, and Geoffrey E. Hinton, 'ImageNet Classification with Deep Convolutional Neural Networks', *Communications of the ACM*, 60.6 (2017), 84–90 <<https://doi.org/10.1145/3065386>>.

61 Wolfram Research, 'ImageIdentify', 2015 <<https://reference.wolfram.com/language/ref/ImageIdentify.html>>.

62 Edmund Husserl, *Collected Works*, trans. by F Kersten (The Hague, Boston, Hingham, MA, USA: Martinus Nijhoff Publishers, 1982), ii, p. 323; Hui, *On the Existence of Digital Objects*.

63 Goodfellow, Bengio, and Courville, p. 477.

64 Goodfellow, Bengio, and Courville, p. 461.

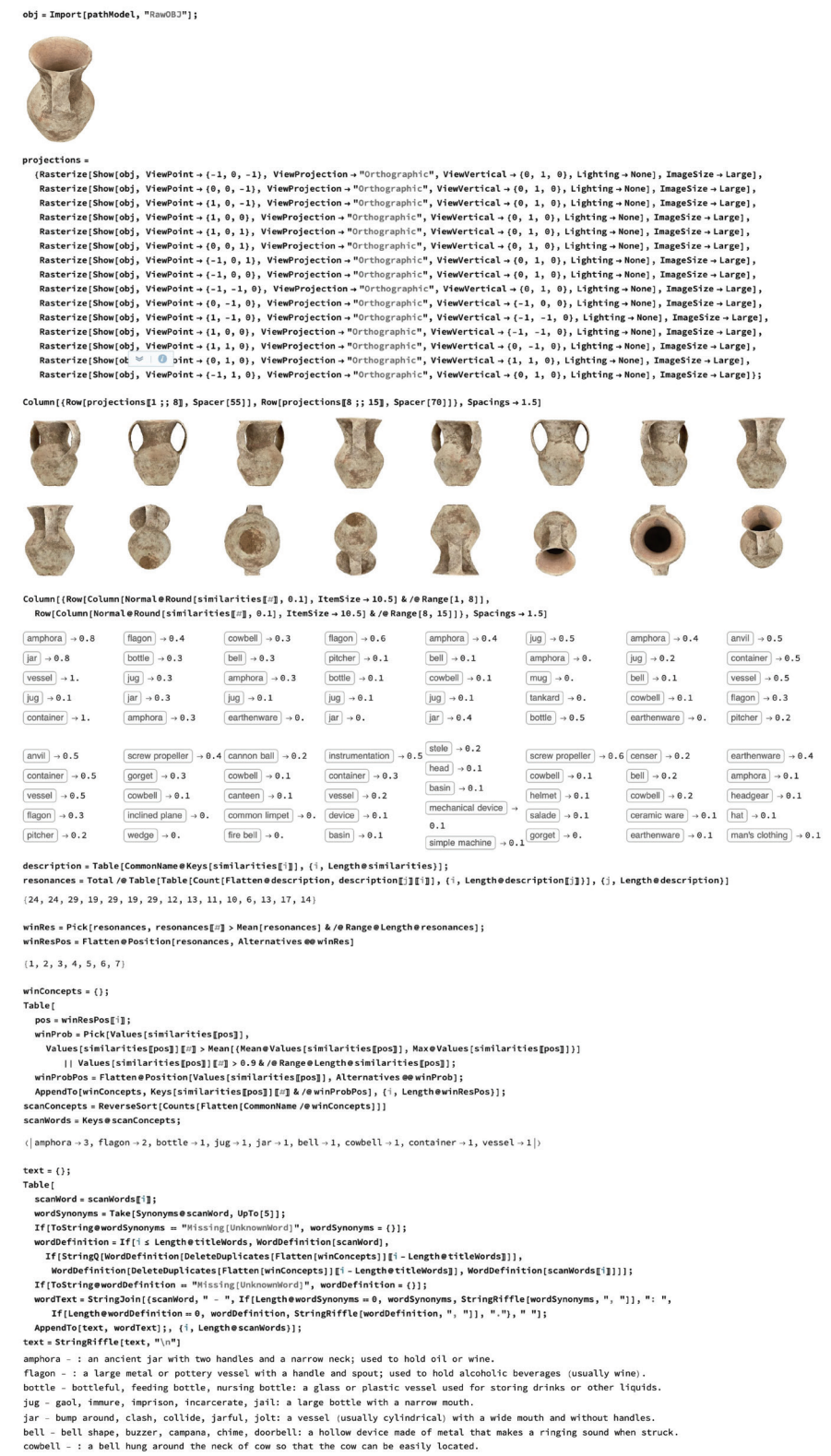


Figure 2.

The transformation of the jug to a vectorial object, including renderings, probabilities, resonances and circumscription. Mathematica Notebook. Image by the author, attributions listed below.

In the next step, the lists of words corresponding to each element must be converted into numbers. All words of both corpora — scans and poems — are stemmed to reduce variations and joined into a common dictionary of 17,749 words. Then, each element — irrespective of scan or poem — can be encoded against this shared reference space. To do this, we choose the TF-IDF⁶⁵ weighting function for its outstanding simplicity and popularity in natural language processing tasks:⁶⁶ for each word in the dictionary, a calculated value reflects the frequency of the expression in the current element in relation to the number of elements containing the expression in the whole corpus. Now, the jug is nothing but a list of 17,749 numbers, a vector of 17,749 scalars, and a point in 17,749 dimensions. As a point, the jug has no parts,⁶⁷ following Euclid's definition. We only keep hold of the jug's handle, a numeric ID, to find it again in hyperdimensional space and link it back to its other modes of existence.

In becoming hyperobjects, all our digital objects sacrifice their appearance, form, content, parts, and any properties they might have. In return, they become virtually related to everything, at least to everything expressible in language within our dictionary. Despite being hyperblind to hyperobjects, we can literally count on them as numeric vectors in mathematical models.

Towards Talking Things

Self-Organised Vectorial Objects

What to do with thousands of points scattered in hyperdimensional space? As one of many possible plays, we will use an unsupervised machine learning algorithm to let them self-organise into a self-organising model.⁶⁸ Its flexibility and simplicity open a plethora of potential applications for architecture, well beyond data analysis and visualisation.⁶⁹ Simondon might call such an

65 Term Frequency – Inverse Document Frequency

66 Joeran Beel and others, 'Research-Paper Recommender Systems: A Literature Survey', *International Journal on Digital Libraries*, 17.4 (2016), 305–38 <<https://doi.org/10.1007/s00799-015-0156-0>>.

67 Euclides, *Euclid's Elements of Geometry: The Greek Text of J.L. Heiberg (1883 - 1885): From Euclidis Elementa, Edidit et Latine Interpretatus Est I.L. Heiberg, in Aedibus B.G. Teubneri, 1883-1885*, ed. by Richard Fitzpatrick, trans. by Richard Fitzpatrick, Revised and corrected (s.l: s.n, 2008), p. 6.

68 *Coding as Literacy: Metalithikum IV*, ed. by Ludger Hovestadt and Vera Bühlmann, Applied Virtuality Book Series, IV (Basel: Birkhäuser, 2015); Teuvo Kohonen, 'Self-Organized Formation of Topologically Correct Feature Maps', *Biological Cybernetics*, 43.1 (1982), 59–69 <<https://doi.org/10.1007/BF00337288>>; Teuvo Kohonen, *Self-Organizing Maps*, Springer Series in Information Sciences, 30th edn (Berlin, Heidelberg: Springer Berlin Heidelberg, 2001) <<https://doi.org/10.1007/978-3-642-56927-2>>.

69 Hovestadt and Bühlmann; Nikola Marinčić, *Computational Models in Architecture: Towards Communication in CAAD: Spectral Characterisation and Modelling with Conjugate Symbolic Domains*, Applied Virtuality Book Series, vol. 12 (Basel, Switzerland ; Boston [MA]: Birkhauser Verlag, 2019).

algorithm an 'open machine'⁷⁰ — its high 'margin of indeterminacy'⁷¹ invites tinkering with it. Not unlike building a piece of architecture, such 'mathematical models are *'built'*⁷² — they are architectonic. Referring to Serres, Vera Bühlmann describes architectonics as 'the art of building active states in which nothing is fixed'.⁷³ The resulting models are 'observatories',⁷⁴ allowing one to think 'objectively in a world of objects among objects'.⁷⁵ They do not represent reality, but themselves *realise* – offering 'the "realization" of what they formulate and allow to demonstrate'.⁷⁶

We train two models at different resolutions, as the datasets of poems and scans are not balanced in number. To dramatically decrease training time and to escape the 'curse of dimensionality',⁷⁷ we use a dimensionality reduction function. Without supervision, the algorithm attempts over a series of training iterations to model the relations between vectorial objects in a two-dimensional net of neurons at the given resolution, each neuron having the same dimensionality as the presented vectors.⁷⁸ Invisible affinities manifest by letting objects associate themselves with the nearest neuron. We can make these relations visible by decoding from the vectorial object back to a digital object — again displaying a three-dimensional graph for a scan and a formatted string of text for a poem.

Decoding Vectorial Objects

The jug with the cryptic name, the rock from Utah, the Parisian electrical cabinet, the pink radish, and the brass key all found a place in a self-organised model — a topological reticulation of relations. Here, they might have grown further apart or close to each other, but all of them are connected. Where Heidegger sees technology-laden contemporality as 'distanceless',⁷⁹ Euclidean distances could not matter more in our model. We can see that the jug shares a neuron with a cup of tea, the rock with a boulder, the electrical

70 Gilbert Simondon, p. xvi.

71 Gilbert Simondon, p. 152.

72 Vera Bühlmann, *Mathematics and Information in the Philosophy of Michel Serres*, 1st edn (Bloomsbury Publishing Plc, 2020), p. 179.

73 Bühlmann, p. 170.

74 Ibid.

75 Bühlmann, p. xix.

76 Bühlmann, p. 179.

77 *Encyclopedia of Machine Learning and Data Mining*, ed. by Claude Sammut and Geoffrey I. Webb (Boston, MA: Springer US, 2017), p. 314 <<https://doi.org/10.1007/978-1-4899-7687-1>>.

78 Teuvo Kohonen, *Self-Organizing Maps*, Springer Series in Information Sciences (Berlin, Heidelberg: Springer Berlin Heidelberg, 2001), xxx <<https://doi.org/10.1007/978-3-642-56927-2>>.

79 Heidegger, *Poetry, Language, Thought*, p. 175.

```
img = renderallimg[somScans];
imgDim = Last@ImageDimensions[img];
Grid[{{InteractiveObjSelection[somScans, img], Dynamic[ScanQueryPanel[somScans, somPoems, 0.01, 0.1, 20, imgDim], 2]}}, Spacings -> 5]
```

cabinet with an AC unit, the radish with a tray of plane food, and the simple key with a key opening the royal chapel in Versailles. We can observe that the same has happened with poems, albeit at another granularity. But perhaps most excitingly, rather than navigating models individually, the common encoding allows us to play between the two models.

A custom-coded interface allows us to scroll through all scans on the left side (Figure 3). When clicking on any of the scans, the closest neuron in the self-organised poem model is activated. In the background, poems associated with the neuron are now sorted based on the smallest distance to the selected scan and weighted by the number of shared words in relation to their length. Tabs full of related poems appear on the right side of the screen. If we click on the jug, we find that the first poem the jug chose lives 100.78 units away, shares two words in common (jug, wine), is almost a millennium old, and comes from Omar Khayaam's *Rubáiyát*. Being here printed on a piece of paper and not in a computational notebook, we lack access to a synthesising text-to-speech model which the jug could borrow. Instead, we lend the jug our voice, reading out loud:

A Book of Verses underneath the Bough,
A Jug of Wine, A Loaf of Bread—and Thou
Beside me singing in the Wilderness—
Oh, Wilderness were Paradise enow!⁸⁰

So far, we have only heard from the jug, but it is not alone; the radish, the electrical box, the rock, the key, and all the other 300 scans have something to say.

From Vectorial Relations to the Relational Thing

Matter Mutter invites us to take the jug and all other scanned things not as passive objects thrown in front of us and against which to stand, but as self-standing and self-organized, active entities. This was enabled by encoding them into vectorial hyperobjects. Of course, one can raise that we were simply augmenting them with a computationally constructed meta-layer, a relationality artificially imposed onto the scans from the outside – a valid point, to which it is hard to object. Still, we find Hui thinking of objects, even the most modest stones, as relational beings.⁸¹ As the coded play unfolded, we encountered different modes of an object's existence, all coming with

⁸⁰ Omar Khayyam, 'The Rubaiyat of Omar Khayyam', *Project Gutenberg*, 1995 <<https://www.gutenberg.org/ebooks/246/pg246-images.html.utf8>> [accessed 27 March 2023].

⁸¹ Hui, *On the Existence of Digital Objects*, p. 217.

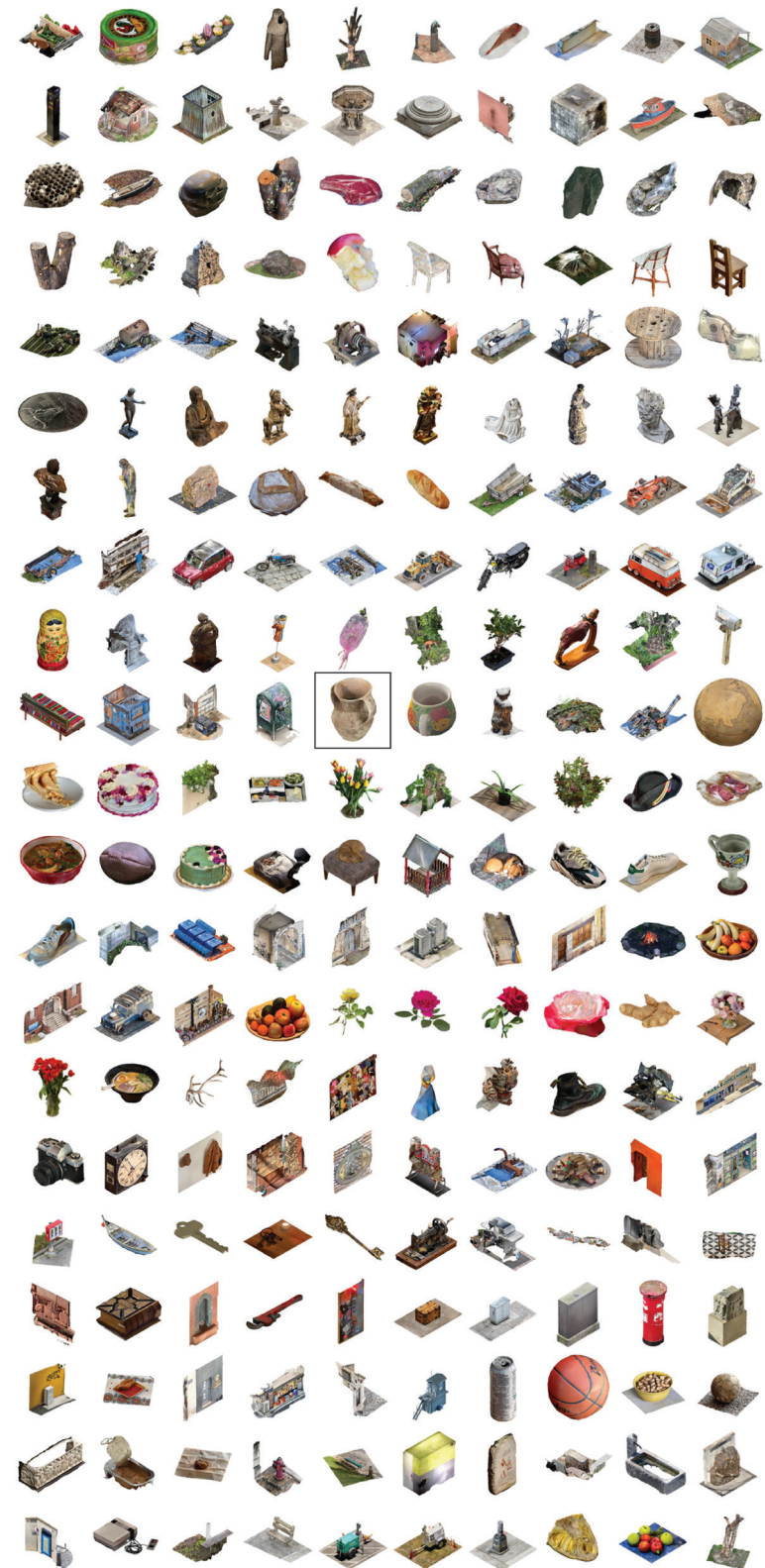


Figure 3.
The interactive interface of *Mutter Matters*. *Mathematica Notebook*. Image by the author, attributions listed below.

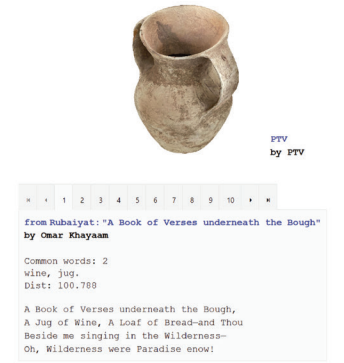




Figure 4.

A poem speaks things into place: mutter matters. 3D scans from Sketchfab. Video still. Image by the author, attributions listed below.

respective milieux: technical, digital, and vectorial. The relationality might indeed belong to the objects themselves, to things themselves.

As a 'philosopher of relations',⁸² it might be worth revisiting Heidegger's notion of things in relation to our jug coming into being as a vectorial hyperobject. Through its circumscription, the jug gathered words – it became a place of 'a gathering, and specifically a gathering to deliberate on a matter under discussion, a contested matter'.⁸³ This alone would not be enough to get us closer to the thing for Heidegger. But something else might: 'Nearness is at work in bringing near, as the thinging of the thing.'⁸⁴ Although we did not necessarily witness the jug *thinging* the world as fourfold of 'earth and sky, divinities and mortals',⁸⁵ we did witness it *nearing* thousands of diverging words used to speak about the world into one vector. Rather than 'The thing things world',⁸⁶ we can say: the vectorial hyperobject things words. To some extent, we witnessed a *thinging* jug.

⁸² Hui, *On the Existence of Digital Objects*, p. 16.

⁸³ Heidegger, *Poetry, Language, Thought*, p. 172.

⁸⁴ Heidegger, *Poetry, Language, Thought*, p. 175.

⁸⁵ Heidegger, *Poetry, Language, Thought*, p. 175, 178.

⁸⁶ Heidegger, *Poetry, Language, Thought*, p. 178.

If we now assume the vectorial objects' thinging reverberating through the other modes of the jug's existence — the jug as a digital object, technical object, and natural object — we might again think of the jug as an active thing. Rather than taking us further away from things, thinking through technical, digital, and vectorial objects might have gotten us closer to them.

Amongst Talking Things

So far, *Matter Mutter* has explored how things and poems, images and text can be connected by techniques pertaining to machine learning and computer vision. Augmented reality uses similar principles, albeit in real-time and at a massively sized scale: applications such as Google Lens access a user's camera, identifying things in view and suggesting Google's results.⁸⁷ While such augmentation suggests an additive layering, an overlaying of information, our line of argument suggests that it can also be understood as an unveiling of a hidden relationality of things. We can speculate on this idea using our coupling of scans and poems in two thought experiments, explicated as video prototypes. What if things could talk poetry? What if poetry could engender things?

As a start, we take the poem 'You've got to start somewhere' by Deborah Landau. We can split the poem at every full stop, encode all the substrings against our shared vocabulary and query the self-organized-scan model for each. This process could be automated entirely, but this would result in a determinate machine, losing all openness to outside regulation.⁸⁸ Rather, we get a series of suggestions to choose from, which are then sequentially aggregated in a rendering software (Figure 4). Over the course of the poem, we experience a scene where lines of poetry have articulated themselves through a probabilistic vocabulary of things; mutter matters.⁸⁹

I had the idea of sitting still
 while others rushed by.^A
 I had the thought of a shop
 that still sells records.^{B, C}
 A letter in the mailbox.^D
 The way that book felt in my hands.^E
 I was always elsewhere.^F
 How is it to have a body today,
 to walk in this city, to run?^G

⁸⁷ Google.

⁸⁸ Gilbert Simondon.

⁸⁹ The following letters in superscript relate to elements in Figure 4, in the next indented part to Figure 5.



Figure 5.

A street full of things speaks poetry: matter mutters. Zurich. Video still. Image by the author.

I wanted to eat an apple so precisely
the tree would make another
exactly like it, then lie
down uninterrupted
in the gadgetless grass.^H
I kept texting the precipice,
which kept not answering,
my phone auto-making
everything incorrect.^I
I had the idea. Put down the phone.^J
Earth, leaves, storm, water, vine.^K
The gorgeous art of breathing.
I had the idea – the hope
of friending you without electricity.
Of what could be made among the lampposts
with only our voices and hands.^{L 90}

90 Deborah Landau, 'You've Got to Start Somewhere', *Poemist* <<https://www.poemist.com/deborah-landau/youve-got-to-start-somewhere>> [accessed 27 March 2023].

But these mechanics allow for reversal, too: we can imagine how just by walking 20 metres along a street in a residential neighbourhood – either running a real-time version of *Matter Mutter* on the smartphone in our pocket or just in our imagination – we could already listen to excerpts of at least five poems (Figure 5). These are brought to us by a scooter, a café chair, a bench, a BBQ grill, and a public fountain; matter mutters.

... 'So bring in your skateboard, your scooter, your bike.
It's time to be different and do what you like'...^{91 A}
... 'I moved my chair into sun
I sat in the sun'...^{92 B}
... 'There's a woman kissing a cowboy
across the street. His eight-year-old son
watches from the bus stop bench'...^{93 C}
... 'in the prodigal smell of biscuits -
eggs and sausage on the grill'...^{94 D}
... 'Long may the Spring,
Quietly as a sleeping infant's breath,
Send up cold waters to the traveller
With soft and even pulse!'^{95 E}

Strolling down the street, aided by a fictitious but entirely plausible application, we experience a scene where things articulate themselves through a probabilistic vocabulary of lines of poetry. As much as Google Lens is only one lens to look at the world, this actualised talk we hear is only one of many virtual talks — one of many resonances in machine learning models hosting vectorial objects.

Matter Mutter, as a coded play, stops here — but does it really? What if, as Serres contends, code is at work in the thing itself, as it 'stores, emits, receives, and processes information'?⁹⁶ What if, as Jane Bennett claims, there is 'liveliness intrinsic to the materiality of the thing'?⁹⁷ What if matter might *actually* mutter?

91 Kenn Nesbitt, 'Good Morning, Dear Students', *Poem Hunter*, 2015 <<https://www.poemhunter.com/poem/good-morning-dear-students/>> [accessed 27 March 2023].

92 Jane Hirshfield, 'I sat in the sun', *Poetry International* <https://www.poetryinternational.com/poets-poems/poems/poem/103-24229_I-SAT-IN-THE-SUN> [accessed 27 March 2023].

93 Lee McCarthy, 'Santa Paula', *The Sun Magazine* <<https://www.thesunmagazine.org/index.php/issues/215/santa-paula>> [accessed 27 March 2023].

94 Rita Dove, 'Dawn Revisited', *Best Poems*, 2019 <<https://www.best-poems.net/rita-dove/dawn-revisited.html>> [accessed 27 March 2023].

95 Samuel Taylor Coleridge, 'Inscription for a Fountain on a Heath, from: The Complete Poetical Works of Samuel Taylor Coleridge', *Project Gutenberg* <https://www.gutenberg.org/files/29090/29090-h/29090-h.htm#stcvol1_Page_381> [accessed 27 March 2023].

96 Michel Serres, 'Feux et Signaux de Brume: Virginia Woolf's Lighthouse', trans. by Judith Adler, *SubStance*, 37.2 (2008), 110–31 (p. 127) <<https://doi.org/10.1353/sub.0.0011>>.

97 Bennett, p. xvi.

Things and Architecture

If we were to 'assume that [...] all of nature, all the trees and the birds and the cars and the buildings [...] "talk" their own "language"',⁹⁸ then we can speculate on being amongst talking things. As we abstract away from private, technological prosthetics, goggles, and screens — we find ourselves back in public. How things articulate themselves here, and how we can articulate with them, becomes a profoundly architectural question when thought at the building scale. Paul Valéry seems to address this by letting Socrates and Phaedrus, both dead and standing at the river of time, discuss architecture. Phaedrus recalls how Eupalinos, the architect, once asked him: 'Tell me [...], have you not noticed, in walking about this city, that among the buildings with which it is peopled, certain are mute; others speak; and others, finally — and they are the most rare — sing?'⁹⁹

Even if we might think of architecture as a primarily visual discipline, and our geometric modelling and visualisation tools comfort us that our profession mainly deals in Euclidean, three-dimensional space, architecture might work in hyperdimensional space, too. Beyond its geometry, it deals with texture and colour, material and structure, atmosphere and mood. More importantly, it communicates — telling stories about its users and use, its intention, its obsessions. And the most remarkable architecture, following Eupalinos, sings — it chants!

If things can talk, they must also play into the equation; a building is one and is yet made of a multiplicity of elements — doors and windows, walls and lintels, girders and beams, tubes and cabling. Along the lines of Simondon, who sees the role of the human as a conductor of technical objects,¹⁰⁰ we can think of the architect as a composer of such things. However, these elements have a life of their own, exceeding their utility function and not exhausting themselves within their allocated scope: For Valéry's Socrates, 'the painter who desires that a certain place on his picture be green, there puts a tree; and by so doing he says something more than what he wished to say initially. He adds to his work all the ideas that spring from the idea of a tree and cannot confine himself to what suffices. He cannot separate colour from some being'.¹⁰¹ The same rings true for architecture.

98 Hovestadt, 'In Conclusion: What Is Information?', p. 714.

99 Paul Valéry, *Dialogues*, trans. by William McCausland Stewart (New York: Bollingen Foundation Inc., Pantheon Books, 1956), p. 83.

100 Gilbert Simondon.

101 Valéry, p. 97.

As architects, we join things that are close and distant, allocating each thing its place: in this, every building becomes inadvertently a model. But by articulating with things that themselves articulate, we only exert limited, if any, control over them. Rather than feeling intimidated by this prospect, we can take it as an encouragement to think architecturally. Facing rapidly evolving technologies affording us artificial intelligences and augmented realities, this level of abstraction helps us discover in them new instruments to be invented and played with rather than tools to be deployed towards predetermined ends.¹⁰²

Conclusion

This essay explored different ways of apprehending things and objects by playing with scans, poems, and code. Various philosophers invited us to consider the relationship between things and natural, technical, and digital objects. Digital architectonics allowed us to think of the vectorial object, partaking in the vectorial milieu of a mathematical model. In the form of a vectorial hyperobject, we liberated the objects from being represented as bearing properties, made them gather words instead and witnessed their very own way of thinging.

Of course, not every digital object was once a technical or natural object, and not every technical object exists as a vectorial object, as was the case with our scans. But because we can think of objects as vectorial, there exists a vast virtual potential for things to exist as vectorial objects. The rapid proliferation of digital objects already spurs their actual potential today. This text might soon find its way into a machine learning model, together with billions of other vectorial objects made from digital objects — such as the pictures in our phones, our posts on social media, and our activity on and off the screen. Not to forget the far greater number of those not created by human users but by machines through sensors, cameras, microphones, or, lately, by generative artificial intelligences. Ever more things exist in ever more models, each realising a new reticulation of the world.

Corresponding to how we apprehend objects, we can apprehend the world: in a natural manner, a technical manner, a digital manner, or a vectorial manner. Because our vision fails us in hyperdimensionality, in *Matter Mutter* we played

102 See Karla Saldaña Ochoa, 'Event Protocol: Enhancing Disaster Response with Architectonic Capabilities by Leveraging Machine and Human Intelligence Interplay' (ETH Zurich, 2021) <<http://hdl.handle.net/20.500.11850/523135>> [accessed 4 August 2022].

with code, deep and shallow neural nets to hear some of the world talk; abstracting from computation, we found ourselves back in the centre of the architectural debate. Architects deal with natural, technical, lately digital, and most recently vectorial things every day — but they have always brought things together. Our buildings talk at least as much as the things they are made from.

Of course, one can think of this play as just a fun exercise, taking the radish, the jug, the electrical cabinet, the rock and the key, all the things on the street and all the poems, and adding an overlay of code. But we can also read it as an attempt to unveil a mode of existence of things as surprisingly talkative, relational beings. We might never have absolute certainty on whether we are covering the world with models, augmenting it, or discovering its already augmented state through them: a *chanting* everyday.

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Fig. 1: From left to right: 'PTV', PTV, CC BY-NC-SA 4.0; 'Day 222: Mineral of Iron', uttamg911, CC BY-NC-SA 4.0; 'Electric box - photogrammetry', Nicolas Diolez, CC BY 4.0; 'Purple Radish', Peter Katz, CC BY-NC-SA 4.0; 'Key 3D Scan Version 2', Laser Design, CC BY-NC 4.0;

Fig. 2: 'PTV', PTV, CC BY-NC-SA 4.0;

Fig. 3: All rows from left to right: **Row 1:** '90: moldy jalapeños at grocery store', macdo219, CC-BY-NC-SA-4.0; 'Ayam Brand Tuna in Olive Oil', Mr., CC-BY-NC-SA-4.0; 'Cacao colombiano', Aumentados, CC-BY-NC-SA-4.0; 'Coat of mail', alban, CC-BY-4.0; 'Day 071: Flowering Dogwood Trunc', uttamg911, CC-BY-NC-SA-4.0; 'horse-head', ume-no-ki, CC-BY-NC-SA-4.0; 'Red Gurnard, Chelidonichthys cuculus', Alex, CC-BY-NC-SA-4.0; 'A large slice of Comté', alban, CC-BY-4.0; 'Barrel with seashells', avi, CC-BY-NC-SA-4.0; 'Cubby House', andreialexandrescu888, CC-BY-NC-SA-4.0; **Row 2:** 'Day 087: Parking Meter', uttamg911, CC-BY-NC-SA-4.0; 'Day 193: Cabin', alban, CC-BY-4.0; 'Day 297: Royal Shack', alban, CC-BY-4.0; 'Taormina Fontana Piazza Duomo', alVRto, CC-BY-NC-SA-4.0; 'Taormina piazza del Duomo Fontana lower part', alVRto, CC-BY-NC-SA-4.0; 'Column base', Aupuma, CC-BY-NC-SA-4.0; 'fancy_sculpture', depuis1986, CC-BY-NC-SA-4.0; 'Statue base', Don, CC-BY-NC-SA-4.0; 'Boat "Josefa"', Alexandre, CC-BY-NC-4.0; 'Cement Waterway', HaleighWilliams, CC-BY-NC-SA-4.0; **Row 3:** 'Day 179: Paper Wasp Nest', uttamg911, CC-BY-NC-SA-4.0; 'Day 340: old boat', alban, CC-BY-4.0; 'Giant sculpture of a scarab beetle (Polycam)', Thomas, CC-BY-4.0; 'トチ 三叉', 曲がり木センター, CC-BY-NC-SA-4.0; 'Cote de boeuf', alban, CC-BY-4.0; 'Day 076: Fallen Log', uttamg911, CC-BY-NC-SA-4.0; 'Day 178: Landscaping Boulder', uttamg911, CC-BY-NC-SA-4.0; 'Day 222: Mineral of Iron', uttamg911, CC-BY-NC-SA-4.0; 'Day 243: Waterfall', alban, CC-BY-4.0; 'Day 310: little cave in the rocks', alban, CC-BY-NC-SA-4.0; **Row 4:** 'ハリギリ二股', 曲がり木センター, CC-BY-NC-SA-4.0; '長岩横穴群 一部', yamagasaruku, CC-BY-NC-SA-4.0; 'Puno - estructura de piedra', Emiliusvgs, CC-BY-NC-SA-4.0; 'Rock Photogrammetry Scan', GSXNet, CC-BY-NC-4.0; 'Apple Core', andreialexandrescu888, CC-BY-NC-SA-4.0; 'Day 013: Dining Chair', uttamg911, CC-BY-NC-SA-4.0; 'Day 218: Old armchair', alban, CC-BY-4.0; 'Mount Fuji Volcano - Japan', Nate, CC-BY-4.0; 'Rattan chair from Maison Gatti', alban, CC-BY-4.0; 'Tiny wooden chair', alban, CC-BY-4.0; **Row 5:** 'Day 122: Three Trailer Dollies', uttamg911, CC-BY-NC-SA-4.0; 'Day 139: Homemade Fuel Trailer', uttamg911, CC-BY-NC-SA-4.0; 'Day 140: Soil Aerator Trailer', uttamg911, CC-BY-NC-SA-4.0; 'Grungy Lathe Scan', Austin, CC-BY-4.0; 'Turbine u4', studio3WG, CC-BY-NC-SA-4.0; 'Asia Kitchen', Adipriatna, CC-BY-NC-SA-4.0; 'Day 157: Abandoned Truck Trailer', uttamg911, CC-BY-NC-SA-4.0; 'Art Shed', aaronalvicschroeder, CC-BY-NC-SA-4.0; 'Wood table', Don, CC-BY-NC-SA-4.0; 'Birthday bill', alban, CC-BY-4.0; **Row 5:** 'Day 164: Montana Quarter', uttamg911, CC-BY-4.0; 'Day 086: Epehebe of Marathon', uttamg911, CC-BY-NC-SA-4.0; 'Joe Hardy', jlhadyphd, CC-BY-NC-SA-4.0; 'Polycam capture', NFTVenturesINC, CC-BY-NC-SA-4.0; 'San Luis Gonzaga. San Carlo di Noto.', alVRto, CC-BY-NC-SA-4.0; 'SAnt', RMelendreras, CC-BY-NC-SA-4.0; 'Statue of Catherine of Cleves', alban, CC-BY-4.0; 'Taormina Santa Caterina', alVRto, CC-BY-NC-SA-4.0; 'Bronze bust of August Strindberg', Nicolas, CC-BY-4.0; 'Day 096: Women's Suffrage Monument', uttamg911, CC-BY-NC-SA-4.0; **Row 7:** 'Marble Bust from Versailles', alban, CC-BY-4.0; 'Me Man by Viola Frey', alban, CC-BY-4.0; 'Day 075: Boulder Seat', uttamg911, CC-BY-NC-SA-4.0; 'Home made bread', alban, CC-BY-4.0; 'Baguette with paper', alban, CC-BY-4.0; 'Bread object capture', alban, CC-BY-4.0; 'Day 121: An Old Cart', uttamg911, CC-BY-NC-SA-4.0; 'Day 147: Abandoned cart', uttamg911, CC-BY-NC-SA-4.0; 'Day 148: JLG Telehandler', uttamg911, CC-BY-NC-SA-4.0; 'Day 156: Bobcat Skid Steer', uttamg911, CC-BY-NC-SA-4.0; **Row 8:** 'Day 158: Manure Spreader', uttamg911, CC-BY-NC-SA-4.0; 'Day 358: feeding the rabbits', alban, CC-BY-4.0; 'Burgundy Mini', alban, CC-BY-4.0; 'Custom mod Rx 100 Bike', Blendermunky, CC-BY-4.0; 'Day 136: 3pt disc harrow with cultipacker', uttamg911, CC-BY-NC-SA-4.0; 'Day 153: Komatsu Wheel Loader', uttamg911, CC-BY-NC-SA-4.0; 'Mash motorcycle', alban, CC-BY-4.0; 'Vespa px125 with ground and tree', alban, CC-BY-4.0; 'Day 068: VW Surfer Van Miniature', uttamg911, CC-BY-NC-SA-4.0; 'Day 193: USPS Van', uttamg911, CC-BY-NC-SA-4.0; **Row 9:** 'Russian doll', alban, CC-BY-4.0; 'Day 107: Wisdom', uttamg911, CC-BY-NC-SA-4.0;

'Wooden statue of a monk reading', alban, CC-BY-4.0; 'Mother carrying child', Long, CC-BY-NC-SA-4.0; 'Purple Radish', Peter, CC-BY-NC-SA-4.0; 'Tethyshadros (River Safari)(Mandai)', Mr., CC-BY-NC-SA-4.0; 'Bonsai tree', alban, CC-BY-4.0; 'Day 364: Jamon Iberico Bellota Ham', emm, CC-BY-NC-SA-4.0; 'Fort Canning - Madras Thorn - Heritage Tree 2', Mr., CC-BY-NC-SA-4.0; 'Brick Road Mailbox', coyohiti, CC-BY-NC-SA-4.0; **Row 10:** 'Airbnb Couch', alban, CC-BY-4.0; 'Day 088: Dumpster', uttamg911, CC-BY-NC-SA-4.0; 'Dumpster', joshua.albers, CC-BY-NC-SA-4.0; 'Mailbox graf', ruthlessart, CC-BY-NC-SA-4.0; 'PTV', PTV, CC-BY-NC-SA-4.0; 'Half full cup of tea', avi, CC-BY-NC-SA-4.0; 'Snowy bear statue', emm, CC-BY-NC-SA-4.0; 'Adirondack Salamander aka red eft', alban, CC-BY-NC-SA-4.0; 'Day 137: New Idea Corn Picker', uttamg911, CC-BY-NC-SA-4.0; 'Huge old globe', alban, CC-BY-4.0; **Row 11:** 'Slice of apple pie on a coffee plate', alban, CC-BY-4.0; 'The Jan-February Cake', Peter, CC-BY-NC-SA-4.0; 'Flower', jotevastudio, CC-BY-NC-SA-4.0; 'Plane meal', alban, CC-BY-4.0; 'Pour vous, ces quelques fleurs!', hexaga, CC-BY-NC-SA-4.0; 'Sang Nila Utama Garden Gate', Mr., CC-BY-NC-SA-4.0; 'Day 066: Aloe Plant', uttamg911, CC-BY-NC-SA-4.0; 'Leaves bouquet', alban, CC-BY-4.0; 'Bicorn hat', alban, CC-BY-4.0; 'Eataly steak scanned with iPhone 12 lidar', alban, CC-BY-4.0; **Row 12:** 'My Soup!', Emiliusvgs, CC-BY-NC-SA-4.0; 'Old rugby ball', alban, CC-BY-4.0; 'The March-April Cake', Peter, CC-BY-NC-SA-4.0; '37: Sleeping Dog', macdo219, CC-BY-NC-SA-4.0; 'Lucy Dog Color 3D Scan', Laser, CC-BY-NC-4.0; 'Playground hut', alban, CC-BY-4.0; 'Sleepy Dog | LiDAR', Emiliusvgs, CC-BY-NC-SA-4.0; 'Yezy Boost 700 Waverunner', Tykix, CC-BY-NC-SA-4.0; 'Stan Smith', karlospe.2000, CC-BY-NC-SA-4.0; 'Painted cup', Aupuma, CC-BY-4.0; **Row 13:** 'Sneakers', g2valet, CC-BY-NC-SA-4.0; 'Bouldnor Battery, Isle of Wight', Forestry, CC-BY-NC-SA-4.0; 'Day 036: Relay Board', uttamg911, CC-BY-NC-SA-4.0; 'Day 259: Passage des Abbesses', alban, CC-BY-4.0; 'Gloucester Cathedral West Entrance', Nick, CC-BY-NC-SA-4.0; 'AC UNITS', abjorn1971, CC-BY-NC-SA-4.0; 'Day 5: 23rd street R W Subway Stop', alban, CC-BY-4.0; 'Door in Annecy from 1819', alban, CC-BY-4.0; 'Fire', alban, CC-BY-4.0; 'Fruit bowl', alban, CC-BY-4.0; **Row 14:** 'Hope City Church', fulcrumvisions.com, CC-BY-NC-SA-4.0; 'Land Rover Defender (Polycam Photo Mode)', Billy, CC-BY-NC-SA-4.0; 'Nativity scene 2021', alban, CC-BY-NC-SA-4.0; 'Still life / Nature morte', emm, CC-BY-4.0; 'Yellow rose', alban, CC-BY-4.0; 'Anatomy of a miniature rose - Photogrammetry', Raiz, CC-BY-NC-4.0; 'Rose', alban, CC-BY-4.0; 'Rosebud', alban, CC-BY-4.0; '[3D-Scan] Ginger Root', insomnia333, CC-BY-4.0; 'Day 083: The Rosey Posey Bouquet', uttamg911, CC-BY-NC-SA-4.0; **Row 15:** 'Tulips bouquet', alban, CC-BY-4.0; 'B3: Ramen', macdo219, CC-BY-NC-SA-4.0; 'Elk skull', emm, CC-BY-NC-SA-4.0; 'Cloister bay, Gloucester Cathedral', Nick, CC-BY-NC-SA-4.0; 'More Love Hours by Mike Kelley', alban, CC-BY-4.0; 'Mr.Fold', alVRto, CC-BY-NC-SA-4.0; 'Sri Lankan mask', reencon, CC-BY-NC-SA-4.0; 'Dr. Martens 1460 ST. PATRICK'S DAY', YuTRON, CC-BY-NC-SA-4.0; 'Saab 9-3 FL Brake/wheel assembly', Thoreedee, CC-BY-NC-SA-4.0; 'ITS A DESERT THING', MBB3D, CC-BY-NC-SA-4.0; **Row 16:** 'Minolta X-370 Film Camera', jattmames52, CC-BY-NC-SA-4.0; 'Darkroom Clock modified', tommyoshima, CC-BY-NC-SA-4.0; 'Wooden jacket and hat sculpture', alban, CC-BY-4.0; 'backyard', goetzmensel, CC-BY-4.0; 'Buzón Correos en Zaragoza España', alVRto, CC-BY-NC-SA-4.0; 'Day 064: Candy Vending Machine', uttamg911, CC-BY-NC-SA-4.0; 'Day 138: New Holland Crop Chopper 36', uttamg911, CC-BY-NC-SA-4.0; 'Day 244: pyramid of cardboard boxes', alban, CC-BY-4.0; 'Old telephone', thequartermexican, CC-BY-NC-SA-4.0; 'Place Saint Michel', alban, CC-BY-4.0; **Row 17:** 'Chewing Gum machine - city ring Munich', medienlabor, CC-BY-NC-SA-4.0; 'Barque - photogrammetry version', alban, CC-BY-4.0; 'Key 3D Scan Version 1', Laser, CC-BY-NC-4.0; 'Keys in dark bar', alex.harvey, CC-BY-NC-SA-4.0; 'Key to the Royal Chapel of Versailles', alban, CC-BY-4.0; 'Pfaff Sewing Machine', justin, CC-BY-NC-SA-4.0; 'Day 170: Weber bbq grill', alban, CC-BY-4.0; 'Day 282: fish shop', alban, CC-BY-NC-SA-4.0; 'Polycam Pump Lidar', carlosebrahim, CC-BY-NC-SA-4.0; 'Benkovich_Object_Scan', arbenkow, CC-BY-NC-SA-4.0; **Row 18:** 'Day 24: Semper Fidelis', alexdelker, CC-BY-4.0; 'Bible', justin, CC-BY-NC-SA-4.0; 'Oman - mosque', trigrou, CC-BY-NC-SA-4.0; 'Sears Pipe Wrench Scan', Milkislegit, CC-BY-NC-SA-4.0; 'Field Painting by Jasper Johns', alban, CC-BY-4.0; 'Wooden Chest', bentleysroof, CC-BY-NC-SA-4.0; 'a grey square telephone switch box', RYOKEKEN, CC-BY-NC-SA-4.0; 'Electric box - photogrammetry', Nicolas, CC-BY-4.0; 'Post box', robertaworkjr, CC-BY-NC-SA-4.0; 'Roman box', Klas, CC-BY-NC-SA-4.0; **Row 19:** 'Urban Utility Box', Lukke, CC-BY-NC-SA-4.0; 'Kumara Plate', Lukke, CC-BY-NC-SA-4.0; 'Rue des Perrieres', alban, CC-BY-NC-SA-4.0; 'ad', ykshoyk, CC-BY-NC-SA-4.0; 'Day 261: Rester la', alban, CC-BY-4.0; 'Liberty Harbor Marina', alban, CC-BY-4.0; 'Monster Dose', BerndF, CC-BY-NC-SA-4.0; 'Baden Elite Game Basketball', jaredywhip, CC-BY-NC-SA-4.0; 'Day 079: Bowl of Peanuts', uttamg911, CC-BY-NC-SA-4.0; 'Polycam capture', brianwilliambyrne, CC-BY-NC-SA-4.0; **Row 20:** '320: Roman Sarcophagus', alexdelker, CC-BY-NC-SA-4.0; 'Le foie de morue', Jojo, CC-BY-NC-SA-4.0; 'Cookie from Kiosk', alban, CC-BY-4.0; '消化器', satorupan, CC-BY-NC-SA-4.0; 'Bench', Pierre-Antoine, CC-BY-NC-SA-4.0; 'Bathroom Scan', Chucky, CC-BY-NC-SA-4.0; '323: Stele of Se-ankhy and Ankhu', alexdelker, CC-BY-4.0; 'Sachsayhuaman Sherman's Stone', Zeptepi, CC-BY-NC-SA-4.0; 'Stone Fountain', alban, CC-BY-4.0; 'Stone Monument', ume-no-ki, CC-BY-NC-SA-4.0; **Row 21:** 'Day 265: Rue du Sentier', alban, CC-BY-4.0; 'The Nintendo Entertainment System (NES)', holofichesystems, CC-BY-4.0; '03 35k950上り(支柱, 取付部腐食)\(FilledUpTriangle)', Sksekei, CC-BY-NC-SA-4.0; 'a nice weathered plank and cement bench', RYOKEKEN, CC-BY-NC-SA-4.0; 'Day 123: Light Tower Engine', uttamg911, CC-BY-NC-SA-4.0; 'Day 128: Light Tower Engine', uttamg911, CC-BY-NC-SA-4.0; 'NY Light Post', stevetalkowski, CC-BY-NC-SA-4.0; 'Day 220: Jackfruit Slice', uttamg911, CC-BY-NC-SA-4.0; 'Fruit and vegetables clutter', RockBoyy, CC-BY-NC-SA-4.0; 'Day 223: Peely Bark', uttamg911, CC-BY-NC-SA-4.0; **Right side:** 'PTV', PTV, CC BY-NC-SA 4.0; From A to L, changed by the author as 3D collage: 'Tiny wooden chair', alban, CC BY 4.0; 'Fire', alban, CC BY 4.0; 'Place Saint Michel', alban, CC BY 4.0; 'Brick Road Mailbox', coyohiti, CC-BY-NC-SA 4.0; 'Bible', justin ulbrich, CC BY-NC-SA 4.0; 'Mount Fuji, Japan', Sara Carena, CC BY-NC-SA 4.0; 'Day 096: Women's Suffrage Monument', uttamg911, CC BY-NC-SA 4.0; 'Apple model', Tupperts, CC BY-NC-SA 4.0; 'a grey square telephone switch box', RYOKEKEN, CC BY-NC-SA 4.0; 'old vintage phone', Noah, CC BY 4.0; 'Day 243: Waterfall', alban, CC BY 4.0; 'NY Light Post', stevetalkowski, CC BY-NC-SA 4.0.

Fig. 4:

Gerlinde Verhaeghe

Carlo Mollino's Camera Incantata

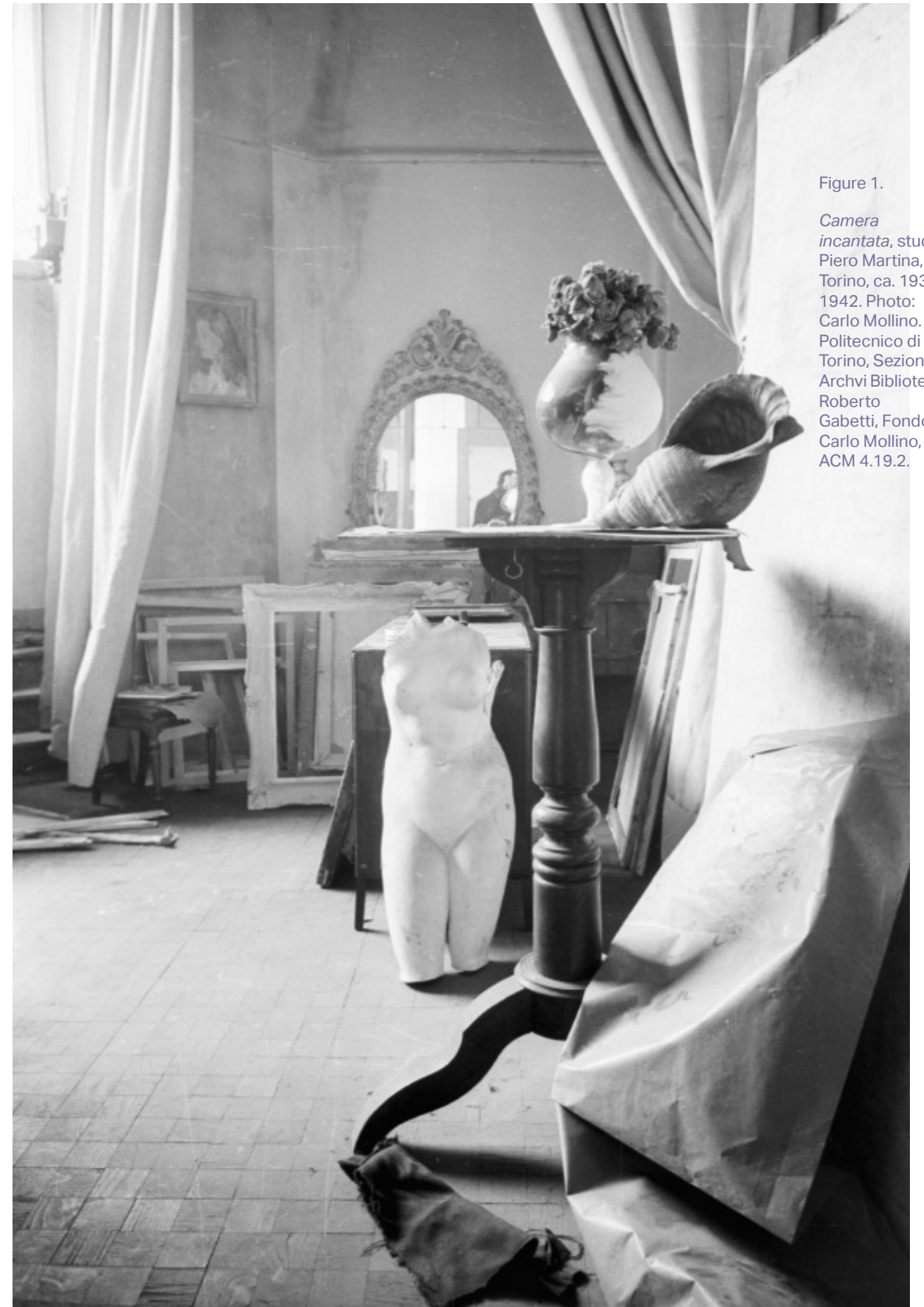


Figure 1.

*Camera
incantata*, studio
Piero Martina,
Torino, ca. 1938-
1942. Photo:
Carlo Mollino,
Politecnico di
Torino, Sezione
Archivi Biblioteca
Roberto
Gabetti, Fondo
Carlo Mollino,
ACM 4.19.2.

Camera incantata (fig. 1) shows us a bright, seemingly unoccupied, studio room. Sunlight is streaming in through a high window and stroking a long, white curtain. In the foreground of the picture, there stands a high round wooden table. A still-life composition consisting of a bulbous vase with flowers and a giant seashell is laid out on it, casting shadows on what looks like a big canvas and a large glossy wrapping paper crinkling down to the tiled studio floor. All attention is drawn to the center of the picture, where in between the various studio props, a pristine white female plaster torso is placed on the studio floor, framed by table foot and top. Above it, we see an oval mirror placed against the back wall of the studio room with a couple of picture frames leaning at its base. In the mirror, we glimpse the dark reflection of the photographer, Carlo Mollino, bent over his camera.

This exploration of the quotidian and the enchanted starts with the black and white photograph titled *Camera incantata* [Enchanted room] (fig. 1) shot sometime between 1938 and 1942 by Turinese architect and designer Carlo Mollino (1905-1973). *Camera* ambiguously refers to both the room and the photographic camera, while *incantata* alludes to the "enchanted" or "magical" atmosphere of the room as captured by Mollino's camera.¹ In 1945, the photograph was published in *Ritratti ambientati di Carlo Mollino*, the fourth and last issue of the mini-series on photography titled *Occhio Magico*.² As a sub-genre of the portrait, the *ritratto ambientato* is a portrait in which the setting or ambience is also important, and Mollino's *Ritratti ambientati* featured eighteen photographic portraits of women set in the architect's first private interior casa Miller (1936).

Camera incantata is part studio self-portrait, part still-life. As a photographic self-portrait, it can be read as an autobiographic anomaly: while it captures its photographer Carlo Mollino in the mirror, it was shot in the studio of his friend, painter Piero Martina, located on Corso Regina Margherita in Turin. Mollino's self-portrait in the mirror resonates uncannily with Martina's own contemporaneous studio self-portrait, *Interno con specchio*, portraying himself in the same oval mirror.³ As a still-life, *Camera incantata* toys with the genre of the "silence of the studio", or the "empty, silent room", where the artist is generally only 'present by implication, with possessions or

1 See Francesco Zanot (ed.), *Carlo Mollino: Photographs 1934-1973* (Silvana Editoriale: Milan, 2018), p. 114.

2 *Occhio Magico* was published by Milanese publisher Scheiwiller between 1944 and 1945. The four issues include: Marziano Bernardi, *Imaginare di Ridenti*, 1944; Enrico Emanuelli, *Bimbi e paesi*, 1945; Federico Vender, *Ritratti femminili*, 1945; Carlo Mollino, *Ritratti ambientati*, 1945.

3 See A. Podestà, 'Piero Martina', *Domus* 148 (1940), 74. Piero Martina's self-portrait in the mirror titled *Interno con specchio* illustrates this article.

equipment left as though half-used, so that the room offers a quasi-portrait of the absent person'.⁴ As we will see, it is precisely in this mix of genre specific stereotypes and crossovers between the medium of painting and photography that the key to Mollino's *Camera incantata* seems to lie.

The context of the photograph's publication is significant. Mollino chose *Camera incantata* for the first page of *Ritratti ambientati*, otherwise consisting of an all-female suite of portraits staged at his own private interior casa Miller (fig. 2-4). As such, Mollino's reflection in the mirror, caught right above the plaster-cast of a classical female sculpture, can be read as a programmatic prefiguration to his *Ritratti ambientati* in particular, and to the cult surrounding his oeuvre in general. In historical reception, Mollino would come to be identified with his private interiors through the series of female portraits he shot in them. From the mid-1930s, Mollino's persona and his female portraits set in his *cabinet* interiors provided intriguing photogenic material, largely uncritically reproduced in historiography.⁵

Beatriz Colomina addresses this as she views Mollino's designs through the lens of his erotic photography, perceiving his 'architecture and design as literally a product of perversion'.⁶ Kurt W. Forster notes how 'His erotic photographs have been turned into semi-clandestine objects of private collectors and vanity publications, but they would be worth analyzing as a domain of imagination that is intimately bound up with his design work rather than as the self-indulgences of a fetishist'.⁷ *Ritratti ambientati*, Mollino's early pocket-size photography booklet, became a collector's item as Mollino turned into a notorious figure of architectural fetish.⁸

4 Giles Waterfield, "The Artist's Studio" in *The Artist's Studio* ed. by Giles Waterfield (London: Hogarth Arts, 2009), p. 33.

5 See i.e. the 'cultic' photography book following the like-named exhibition at Fondazione Italiana per la Fotografia in Turin, Ferrari, F. & Ferrari, N., *Carlo Mollino. Fiabi per I grandi 1936-1943*, Federico Motta Editore, Milan: 2003.

6 Beatriz Colomina & Mark Wigley, *Are we human?: notes on an archeology of design* (Zurich: Lars Müller Publishers, 2016), pp. 183-184.

7 Kurt W. Forster, 'The Master of Desiring', *Firenze architettura* (2019), 4-15.

8 The large number of female nude polaroids that were found at Mollino's secretive abodes and published posthumously further added to his reputation. See i.e. Beatriz Colomina, 'Reputations: Carlo Mollino', *The Architectural review*, 235 (2014), 20-21; Matthew McLean, 'Carlo Mollino, Camera, Turin, Italy', *Frieze*, 195 (2018), 210 <<https://www.frieze.com/article/carlo-mollinos-erotic-polaroids>> [accessed 8 April 2023]



Figure 2.

Photo II *Sibilla* and photo III *Canzone*, "Ritratti Ambientati di Carlo Mollino", *Occhio Magico*, 4 (1945), Milan: all'insegna del Pesce d'Oro, 1945.



Figure 3.

Photo IV *Ritratto allo specchio* and photo V *Fiabe per i grandi*, "Ritratti Ambientati di Carlo Mollino", *Occhio Magico*, 4 (1945), Milan: all'insegna del Pesce d'Oro, 1945.



Figure 4.

Photo VI *Teste allo specchio* and photo VII *Ritratto*, "Ritratti Ambientati di Carlo Mollino", *Occhio Magico*, 4 (1945), Milan: all'insegna del Pesce d'Oro, 1945.

The suggestive series title *Occhio Magico* as well as the photograph's title *Camera incantata* came to stand for Mollino's photographic production linked to his secretive interiors, resulting in namesake exhibitions and publications.⁹

Camera incantata alludes both in title and in content to Mollino's refuge into an "enchanted" or "magical" interior world captured by his photographic lens. The prewar and wartime context of the "ritratti ambientati" interior images is significant as it marks Mollino's and Martina's retreat into the studio interior, removed from the public quotidian life, dominated by the increasingly hostile rhetoric and policy of the Fascist regime.¹⁰ For painter Piero Martina, this is expressed in a turn to painting still-lives and domestic scenes by architect and designer Carlo Mollino it is expressed in his early ventures into interior design and photography, which resulted in the postwar publications *Ritratti ambientati* (1945) and *Il messaggio della camera oscura* [Message from the Darkroom] (1949).

Camera, cabinet and artist's studio

Central to this essay, is the visual (self-)representation of the male occupant in the *cabinet* and the studio interior. In this context, the notion of a 'room of one's own' is significant, as is the role of these rooms in the creative processes in the construction of the image of the male artist or architect. Here, the historical correlations between the *cabinet* and the studio are of interest, as are their associated pictorial genres, presenting, both in painting and in photography, the occupant as centerpiece of the room. This essay examines Carlo Mollino's *Camera incantata* from the point of view of the male *cabinet*, referring to the typological term for a private room gendered male. In studying Mollino's photograph, it explores the *cabinet* as a space of male self-representation that can be seen as the subject's projection into space.

⁹ See i.e. the recent exhibition and like-named book "L'occhio magico di Carlo Mollino. Fotografie 1934-1973." Camera, Turin, 18 January - 13 May 2018 and the articles Federica Rovati, "La camera incantata. Carlo Mollino e la cultura artistica torinese 1935-41" in *Carlo Mollino architetto. Costruire le Modernità.*, ed. by Sergio Pace (Electa: Milan, 2006), pp. 65-77; Michela Comba, "Carlo Mollino's Enchanted Rooms: Face-to-Face with Art in a Company Town, 1930-60", proceedings EAHN 2013 Turin, 296-306. *Carlo Mollino - Hyperformal Allusions*, (4 September - 7 November 2021), Triennale Milano, presented Mollino's design pieces along his *Occhio Magico* issue. Through dramatic lighting and futuristic sounds, the exhibition design sought to re-invoke the "fantastical world of Carlo Mollino". See Gerlinde Verhaeghe, 'Mollino à Milan', *Le Temps, Le blog de l'Istituto svizzero* (2021) <<https://blogs.letemps.ch/istituto-svizzero/2021/11/29/mollino-a-milan/>> [accessed 8 April 2023]

¹⁰ See Maria Teresa Roberto, "Tasselli per Piero Martina" in *Piero Martina: Percorsi di pittura dagli anni trenta agli anni settanta*, ed. by Maria Teresa Roberto (Torino: Accademia Albertina delle Belle Arti Torino, 2003), p.16.

The French term *cabinet* and the English term 'studio' are historically related to their Italian ancestor, the *studiolo*, or scholar's study.¹¹ Michael Cole and Mary Pardo demonstrate that while the term 'studio' is used anachronistically when referring to the early modern artist's atelier (at the time called *bottega* in Italian) as it only entered the English language in the nineteenth century, it still fits in relation to the pictorial genre, depicting the early modern artist in his abode, engaged in artistic as well as academic activities.¹² It has been shown that the historical type of the study represents a correlation between the workplace of the artist and the scholar.¹³ Both *cabinet* and studio, present us with a personal space for scholarly and creative processes – drawing, collecting, reading, thinking, designing, etc. – essential to all forms of visual production.¹⁴ The Italian term studio referred to a small private room, a *camerino*, where the scholar sat. In mid-sixteenth-century Italy, this type of *camerino* was sometimes also called a *cabinetto*.¹⁵ According to Peter Thornton, over time, *cabinet*, the French term for a small private room, gained "a glamorous ring" as it evokes 'visions of those elaborately decorated little rooms, personal to a single individual, that played such an important role in fashionable social life in the seventeenth- and eighteenth centuries'.¹⁶ D'Alembert and Diderot's *Encyclopédie* of 1751-65 defines the *cabinet* as follows:

Under this name one understands rooms dedicated to study or in which one conducts private business, or which contain the finest examples of one's collections of paintings, sculptures, books, curios, etc. One also calls *cabinets* those rooms in which ladies get dressed, attend to their devotions or take an afternoon nap, or those which they reserve for other occupations which demand solitude and privacy.¹⁷

11 See Wolfgang Liebenwein, *Studiolo: Die Entstehung eines Raumtyps und seine Entwicklung bis um 1600*, (Berlin: Gebr. Mann Verlag, 1977); Dora Thornton, *The Scholar in His Studio* (Yale: Yale University Press, 1998).

12 Michael Cole & Mary Pardo, "Origins of the Studio" in *Inventions of the Studio, Renaissance to Romanticism*, ed. by Michael Cole & Mary Pardo (Chapel Hill and London, The University of North Carolina Press, 2005), p. 3.

13 Wouter Davidts and Kim Paice eds., *The Fall of the Studio: Artists at Work* (Amsterdam, Valiz, 2009), p. 9.

14 James Hall, *The Artist's Studio: A Cultural History* (London: Thames & Hudson, 2022), p.10.

For a brief overview of the historical development of the *bottega*, *studiolo*, *studio* and *cabinet* types see i.e. Gilles Waterfield (ed.); Cole and Pardo, *Inventions of the Studio*, pp. 1-35.

15 Paul Thornton, "The More Private Rooms" in *The Italian Renaissance Interior 1400-1600* (New York: Harry N. Abrams Publishers, 1991), p. 296.

16 Thornton, *The Italian Renaissance Interior 1400-1600*, p. 296.

17 Denis Diderot and Jean Le Rond D'Alembert, *Encyclopédie ou dictionnaire raisonné des sciences, des arts et des métiers*, 1751-65, p. 488. Original citation: Cabinet, f.m. (Architect.) sous ce nom on peut entendre les pieces destinées à l'étude, ou dans lesquelles l'on traite d'affaires particulières, ou qui contiennent ce que l'on a de plus précieux en tableaux, en bronzes, livres, curiosités, Ec: On appelle aussi *cabinet*, les pieces où les dames font leur toilette, leur oratoire, leur méridienne, ou autres qu'elles dessinent à des occupations qui demandent du recueillement & de la solitude. For an overview of the different definitions of the *cabinet*, see Dominique Bauer, *Beyond the Frame: Case Studies*, (Brussels: Academic and Scientific Publishers, 2016), pp. 55-58

While according to this early description, the private space of the *cabinet* can be gendered male or female, the type particularly applying to men is perceived as predating its female counterpart, the *boudoir*. Starting from Diderot and D'Alembert's two-part definition of the *cabinet* as, on the one hand, a space for collection, study and business and, on the other hand, a space for rest, devotion and care for the body, one can identify a number of iterations of the *cabinet* typology throughout history, ranging from the sixteenth- and seventeenth-century *cabinet of curiosities* as a piece of furniture or an interior for display¹⁸, the exhibitional and representational space of occupant and collector,¹⁹ to the *cabinet* (male) versus *boudoir* (female) as gendered and intimate spaces narrated in eighteenth-century libertine and nineteenth-century decadent literature.²⁰ From its pre-modern outset, the *cabinet* had come forward as an enclosed, exhaustive, representative and highly subjective space. These defining characteristics of the *cabinet* were radicalized in the nineteenth century defined by an awareness of loss and striving for comprehensive frameworks of understanding.²¹

Created in the age of surrealism, fragmentation and collage, Mollino's 1930s interpretation of the *cabinet* further radicalizes the different aspects of its historical precursors, from being used for collection and self-representation, to being a place of privacy and pleasure. Its medialization is an intrinsic feature of the *cabinet*. Throughout its historiography, the enclosed typology, and its male occupant, have been mediated in images and writings. From photographs, to paintings, drawings, and texts, this article is interested in the media springing from the *cabinet* and how they shape the image of their creator.

Camera incantata marks Mollino's interest in the artist's studio interior, as he exposes it as an "enchanted room" with his camera. Both the subject of the artist's studio and its depiction as "a place of enchantment", were tropes, first established in painting and subsequently pursued in twentieth-

18 See Krzysztof Pomian, *Collectors and Curiosities: Paris and Venice, 1500-1800*, (Cambridge: Polity Press, 1990); Lorraine Daston and Katherine Park, *Wonders and the Orders of Nature: 1150-1750*, (New York: Zone Books, 2001).

19 Historian Paula Findlen for instance describes how for the sixteenth century collector, "collecting was a way of aestheticising the self". See Paula Findlen, *Possessing Nature: Museums, Collecting and Scientific Culture in Early Modern Italy*, (Berkeley: University of California Press, 1994), p. 293; Bauer, *Beyond the Frame*, pp. 57-58.

20 See a.o. Michel Delon, *L'Invention du Boudoir* (Cadeilhan: Zulma, 1999); Paul J. Young, *Seducing the Eighteenth-Century French Reader: Reading, Writing and the Question of Pleasure* (Cornwall: Ashgate, 2008); Georgina Downey and Mark Taylor, "Impolite reading and erotic interiors in eighteenth-century France" in *Designing the French Interior: The Modern Home and Mass Media*, ed. by Anca I. Lasc, Georgina Downey and Mark Taylor, (London: Bloomsbury Academic, 2015), pp. 13-28; Didier Maleuvre, 'Philosopher dans le boudoir: l'intérieur dans la prose du dix-neuvième siècle', *The French Review* 68 (1995) 431-444.

21 See Dominique Bauer and Camilla Murgia, *The home, nations and empires, and ephemeral exhibition spaces: 1750-1918*, (Amsterdam: Amsterdam University Press, 2021).

century photography.²² Modernist artist's studios were framed as enchanted places, inseparable from the artist's work-process and his ego staged within.²³ Representations of the artist and his studio have steered art history profoundly. So much so that, in *Imagination's Chamber*, Michael Peppiatt and Alice Bellony-Rewald propose to tell art history through the studio.²⁴ More recent scholarship has treated this subject matter more critically, pointing out its reliance on, and continuation of equating creation and masculinity, and the passive representation of women in art.²⁵ This essay sets out to contribute to this critical research, by examining and questioning the topoi and mechanisms inscribed in Mollino's *cabinet* and studio photography. It investigates the reality and the myth – the quotidian and enchanted – in the *cabinet*, as a representational space centered on its subject-dweller, challenging the construction and cult of the male artist in his interior.

The enchanted room, in photography and in painting

Recurring studio objects, compositions and themes relate Carlo Mollino's studio photograph *Camera incantata* to a number of Piero Martina's paintings similarly set in Martina's studio (*La camera del collezionista*, 1940; *Interno*, 1942; *Rose e conchiglie*, 1942; *Composizione*, 1948 and *Il mio studio*, 1938/50). Yet, the atmosphere in Mollino's photograph differs noticeably from that in Martina's paintings. Attilio Podestà, a contemporary art critic, noted how Martina's paintings were characterized by a 'fusion of objects in a common atmosphere'²⁶, and while both paintings and photograph breath a studio atmosphere, they do so differently: Martina's paintings of that period are pointedly devoid of artifice whereas Mollino's photograph deploys a language and composition evocative of de Chirico's and Carrà's metaphysical painting.²⁷ Depicting real objects, placed in an architecturally well-defined space suffused with light and drenched in

22 See Mary Bergstein, "'The Artist's Studio': Photography, Art and the Masculine Mystique", *Oxford Journals*, 18 (1995), p.46.; Dawn Ades, "Photography and the Artist's Studio" in *The Artist's Studios: A Century of the Artist's Studio 1920-2020*, ed. by Iwona Blazwick, Inês Costa, Richard Dyer, Hammad Nasar, Candy Stobbs, (London: Whitechapel gallery), pp. 9-15.

23 Bergstein, 'The Artist's Studio', p. 51.

24 Michael Peppiatt and Alice Bellony-Rewald, *Imagination's Chamber* (London: Gordon Fraser, 1983), pp.v-vi.

25 Bergstein, 'The Artist's Studio', p. 45.

Mary Bergstein examines in her article how through 'cultic' photographic images and texts, such as Liberman's *The Artist in His Studio* and Brassai's *The Artists of my Life*, advanced specific ideas about the mystique of the artist's studio, about women and art, and about masculinity as the *primo mobile* of artistic transcendence", topoi first established in the sixteenth century by Vasari and reshaped in modernist artist legends.

26 According to Attilio Podestà, assessing Piero Martina's oeuvre in 1940, Martina's expressive, "dramatic lyricism" reveals itself in the dramatic use of colour, the opening up of formal patterns and "in the fusion of objects in a common atmosphere". See Attilio Podestà, "Piero Martina," *Domus* (1940) April: 74.

27 See Rovati, "La camera incantata", pp. 73-74.

absolute stillness, the photograph seems to transcend reality. In other words, while both paintings and photograph capture a turn to the studio interior, Martina's paintings tend to focus on the poetics of the "quotidian", while Mollino's photograph brings out the estranging or "enchanted" atmosphere of the studio interior. *Camera incantata*'s spell of "enchantment" is arguably achieved by its style of representation, turning "the real" into the metaphysical. Key disorienting effects lie in the various perspectival levels that are at work in the photograph. Objects are artfully arranged from close-by to far away and evoke de Chirico's distorted perspectives and metaphysical interiors occupied by mannequins, torsos of sculptures and artist's tools, such as f.e. *Man Seated before a Window* (1913) or *The Return* (1917).

A clue to the source of inspiration for Mollino's *Camera incantata* may be found in Carlo Carrà's like-named painting of 1917, first exhibited in Turin in March 1938 at the art gallery Lazecca.²⁸ In March 1938, Carrà's *La camera incantata* was exhibited at Lazecca, a Turin art gallery run by Felice Casorati and Enrico Paulucci. It was at this exhibition that 'we finally found *le temps perdu*, the adolescence in the hypermnesia of *La camera incantata*' as painter and art historian Albino Galvano, a close friend of Mollino noted.²⁹ For Carrà, *La camera incantata* had signaled a brief period of object-centred, *pittura metafisica* [metaphysical paintings] created alongside Giorgio de Chirico. His work soon developed in a different direction. Already, his painting *Le Figlie di Loth* of 1919 was associated with the *realismo magico* [magic realism] movement that established itself in the 1920s and 30s, and, by returning to the *Quattrocento* pictorial tradition, developed a peculiar, highly realistic formal language sprinkled with estranging or "magical" effects.³⁰ While different in themes, objects and approach, both *pittura metafisica* and *realismo magico* sought to reveal the "enigma" or the "magic" of the everyday, aspects of Carrà's work that clearly appealed to Mollino. In his *Camera incantata*, Mollino is influenced by these references in his striving to evoke an atmosphere of "enchantment".

28 Carlo Mollino's library holds several publications on and my Carlo Carrà, oa. Giuseppe Raimondi, *Disegni di Carlo Carrà* (Milan: Ulrico Hoepli, 1942), with a lithography of *Le Figlie di Loth* (1924) figuring on the front flyleaf, and Roberto Longhi, *Carlo Carrà* (Milan: Ulrico Hoepli, 1937) featuring *La camera incantata*.

29 Albino Galvano, 'Torino. La collezione del Reggìo', *Emporium*, 87 (1937) 220.

Original citation: "[...] dove finalmente abbiamo ritrovato *le temps perdu*, l'adolescenza nell'iperemnesia della *Camera Incantata* di Carrà [...]".

30 In 1917, Carlo Carrà worked alongside Giorgio de Chirico at a military hospital in Ferrara and developed his variant of the Metaphysical painting style in *La camera incantata*, *Madre e figlio* and *La musa metafisica*. Carrà also authored the manifesto *Pittura Metafisica* (1919) through which he became closely associated with the art movement. However, soon after, writer and art critic Massimo Bontempelli associated Carlo Carrà's paintings with the *realismo magico* streaming of the 1920s and 30s. *Realismo magico* sought to evoke the often estranging effects of highly realistic paintings by old masters such as Piero della Francesca.

While Carrà in his *La camera incantata* reinterpreted objects favoured by de Chirico (manikins, fish), Mollino equally turned his lens to studio props (plaster casts, mirrors) as well as to objects of domestic life and nature (giant seashell, butterflies, vases, flowers). Some objects, such as the classical female plaster torsos, are common studio staples, also recurring in still-life paintings by members of the *Sei di Torino* [The Turin Six] surrounding Felice Casorati (e.g. Venus torso in Casorati's *Maschere* (1921) and *Lo studio*



Figure 5.

Photographic suite featuring life model and still-life, studio Piero Martina, Torino, ca. 1939-1940. Photo: Carlo Mollino, Politecnico di Torino, Sezione Archivi Biblioteca Roberto Gabetti, Fondo Carlo Mollino, ACM 4.29.001.



Figure 6.

Photographic suite featuring life model and still-life, studio Piero Martina, Torino, ca. 1939-1940. Photo: Carlo Mollino, Politecnico di Torino, Sezione Archivi Biblioteca Roberto Gabetti, Fondo Carlo Mollino, ACM 4.29.013.



Figure 7.

Photographic suite featuring life model and still-life, studio Piero Martina, Torino, ca. 1939-1940. Photo: Carlo Mollino, Politecnico di Torino, Sezione Archivi Biblioteca Roberto Gabetti, Fondo Carlo Mollino, ACM 4.29.012.

(1934)).³¹ Other elements, such as butterflies, seem to be more specific to the interior worlds depicted by Mollino and his friend Martina. As we will see, butterflies pop up in many unlikely places in their works, appearing in still-lives, on folding screens and sitting on models. In what follows, I will first examine the classical Venus plaster figure as both staple of the artist's and architect's studio, and as a key to Mollino's portraits of women. Second, I will investigate the butterfly as a characteristic element or trope in both Martina's and Mollino's oeuvre. In addition to studying the studio portrait *Camera incantata*, I will conduct close readings of two more archival suites of photographs that Mollino shot in Martina's studio interior featuring a female life model (one centred on the Venus, the other on butterflies) and relate them to the female portraits Mollino shot in his own private interior casa Miller, published as *Ritratti ambientati* in *Occhio Magico*. The different contexts in which these photographs were made (Martina's studio interior versus Mollino's *cabinet* interior) are of specific interest as they steer our understanding of them and their relation with each other.

Venus

A suite of photographs shot in Piero Martina's studio between 1939 and 1940 (fig. 5-7), features similar studio props similar to those in Mollino's photograph *Camera incantata*: female plaster-cast torsos, a vase and a giant seashell arranged around a round table and an oval mirror. Importantly, instead of the author's presence (reflected in the mirror) in *Camera incantata*, a woman is present in Mollino's photographic suite: a female model enters into a visual dialogue with the studio objects on display. The photographs present us with a play of objectification, or of formal comparison between female model, truncated torsos, and their mirror image.

In the first photograph, we see a plaster-cast female torso placed on a round, wooden table, its back turned to the camera, while its front is reflected in an imposing ornate oval mirror that is placed in the background (Fig. 5). Placed a little higher, on a pedestal in the corner next to the mirror, we see another truncated torso, the shadow of its profile cast against the wall. The two plaster-cast headless bodies and their reflection seem to stand in a triangular relationship with, at its centre, a narrow glass vase containing flowers. The truncated, idealised female bodies of the plaster-casts are recognizable as the Venus de Milo and the Venus de Cnide, respectively.

³¹ The group of painters *Sei di Torino* that formed around Felice Casorati in 1930, consisted of Jessie Boswell, Gigi Chessa, Nicola Galante, Carlo Levi, Francesco Menzio and Enrico Paulucci.

They are figures of ideal female beauty are arranged around flowers, symbols for female sexuality. Strikingly, these figurations of female beauty are always fragmented, for the Venus figure, or the image of ideal female beauty, can never be complete. The female body appears objectified and fragmented multiple times as casts, and as mirror images. Just below this still-life composition, a female life model is shown reclining in an armchair, looking the viewer in the eye challengingly, or rather, challenging the person behind the camera with a smile. She promises us a sense of feminine subjectivity in the game of multiple objectifications. The implicit presence of the photographer and the suggestive staging of female subject and objects related to female form and sexuality, imply the male gaze. Yet, the uneasy tension of the composition and the returned gaze of the female model, speak of defiance and humour.

The second photograph of the suite plays with the theme of doubling, or mirroring, of female model and female plaster cast torsos (Fig.6).³² It captures the reflection of the life model and a sculpted torso, shoulder to shoulder in the mirror, or building on Brenda Schmahmann's words, the 'real', 'objectified', and 'reflected female bodies' as 'conjoined presences'.³³ In the surface of the mirror, their bodies are fragmented and juxtaposed: the life model partly reflected and the Venus de Milo half-cast, are a combination of 'the real and the ideal, the animate and the inanimate'.³⁴ What emerges is a kind of hybrid female figure as the difference between subject and object is blurred, both being objectified further in their mirror images. The life model gazes into the mirror, and in it, she presumably sees the (male) photographer. A hint at feminine subjectivity is again cast forward and out of reach in the mirror image. The male gaze pursues in vain an endless series of women.³⁵

Outside the mirror, we find a doubling of "woman and her ideal" as we see both the female model and the Venus de Cnide plaster-cast.

³² Brenda Schmahmann, "Cast in a Different Light. Women and the 'Artist's Studio' Theme in George Segal's Sculpture" in *The Studio Reader. On the Space of Artists*, ed. by Mary Jane Jacob and Michelle Grabner, (Chicago and London: University of Chicago Press, 2010), p. 226.

³³ Schmahmann, "Cast in a Different Light", p. 225.

³⁴ Adina Kamien-Kazhdan, "Plaster models: Man Ray's interest in the obscure and the obsolete" in *Man Ray: Human Equations*, ed. by Wendy A. Grossman, Eduard Seblin, (Ostfildern: Hatje Canz, 2015), p.162

³⁵ Much like Rodenbach's tale *L'ami des miroirs*, the male gaze pursues in vain an endless series of images of women. Rodenbach's male protagonist recounts: "[...] they got fast, they don't let themselves be approached, they escape me from mirror to mirror", unreachable in infinite reflection. Georges Rodenbach, "L'ami des miroirs [...]" in *Le Rouet des Brumes* (Paris: Ernest Flammarion, 1900), p. 96.

A third photograph shows the female model standing, gazing directly at the viewer while the two sculpted torsos face each other (Fig. 7). She blocks the view into and of the mirror – woman and her spectre overlap.

One can conclude that the photographs are concerned with transforming the female model into an art figure.³⁶ In view of this intended transformation, it is striking that, while taking instructed poses, the female (life) model seems to resist and question them through her subjectivity.³⁷

Occhio Magico n°4: Ritratti Ambientati di Carlo Mollino

While the suite of Mollino's photographs taken in Martina's studio is related to *Camera incantata* by its location and the Venus leitmotif, its link to the female portraits published in *Occhio Magico* is made explicit by Mollino including *Camera incantata* as a programmatic preface to his issue in this small book series. All female portraits in it were shot in Mollino's own *cabinet* interior casa Miller. Just like in the photographic suite set in Martina's studio, turning a female model into an art figure seems to be what lies at the heart of his *Ritratti ambientati*. This artistic impulse of transformation has been pointed out in relation to portrait painting. Writing on Degas' portraits of women, cultural critic Elisabeth Bronfen defines the inherent ambivalence of the female portrait as follows: "[...] the portrait, intended first and foremost to represent a particular woman in her specific context, comes in the process to depict its very opposite as well – the effacement of the model as she is turned into a figure, signifying something other than herself".³⁸ *Ritratti ambientati di Carlo Mollino* features eighteen female portraits. Five of them are portraits of Lina Suwarowski (photographs IV to VII, XIII, XIV and XVII) (Fig. 3-4), who became a muse and frequent subject of his photographs while he presumably was her lover from the mid 1930s to the early 1940s. We could read Suwarowski's photographic portraits with Bronfen's definition of ambivalence in the painterly female portrait in mind: they depict Lina, often with a haughty or defying expression, suggestive of their bond, while also turning her into a muse and figure representative of the contemporary fashion, film and art world. Glamour as associated with film stars and fashion photography seems to be an important factor in this

³⁶ For the notion of women turned into art figures, see Elisabeth Bronfen, *Crossmappings: On Visual Culture*, Elisabeth Bronfen, (London: I.B. Tauris & Co, 2018), p. 32.

³⁷ It seems interesting to note that the presence of the life model is exclusive to Mollino's photographs. Piero Martina did not include her in his series of paintings centred on the same still-life setting of Venuses, oval mirror, vase and round table. *Interno* (1942) and the two more abstract versions *Il mio studio* (1938/50) and *Composizione* (1948), do not include a female life model while still centring on Venus and her mirror image.

³⁸ Bronfen, *Crossmappings*, p. 19.

transformation from subject to figure. Glamour radiates from Suwarowski's 1930's hairstyle (blond or brown wavy curls), make-up (pale complexion, thin, marked eyebrows and painted lips) and dress (a glossy satin dress) (Fig. 3-4). Likewise, Beatriz Colomina noted on the female portraits of *Occhio Magico*: '[...] the women don't appear as themselves. They are figures in a fantasy, leading actresses in a film. The style is that of Hollywood publicity shots'.³⁹

"Beyond films and photographs", Mollino's *Ritratti ambientati* set in casa Miller also resonate with Surrealist "depictions of women" that 'populate interiors and materialize into furniture or decorative objects'.⁴⁰ In casa Miller, it is the Venus figure that materializes into a mirror. If in Piero Martina's studio, Venus and mirror are the two main props, in casa Miller they collide in one object, the Venus-shaped mirror. We can trace the transposition between Mollino's suite of photographs of female model, mirror and Venus figure in Martina's studio (fig. 5-7), and female model and Venus-shaped mirror in the *ritratto ambientato* titled *Canzone* (photo III, fig. 2). *Canzone* shows a female model adjusting her hair in the Venus-shaped mirror, while a male silhouette in suit (the photographer, Mollino) looms behind her. A sequence of Surrealism inspired female portraits follows. *Sibilla* is framed by a decorative rocaille cartouche and captured looking through a glass bell with a little mannequin ducking away under her/it (photo II, fig. 2). *Fiabe per i grandi* reads as a misogynist pun showing Lina Suwarowski stored away in a brimful cupboard, as if an object among objects (photo V, Fig. 3).⁴¹ *Ritratto VII* evokes Man Ray's iconic (nude) photographs of Lee Miller with net curtain (*Shadow Patterns on Torso* (Lee Miller), 1930), here reiterated by Carlo Mollino and Lina Suwarowski (photo VII, Fig. 4).⁴² 'I imagine seeing these graceful female figures entering Mollino's studio, which must be a happy crossing between a phantom laboratory and a rational Gropius-style studio' writes

39 Beatriz Colomina, "A Slight Nausea", in *Carlo Mollino architetto. Costruire le Modernità*, ed. by Sergio Pace (Milan: Electa, 2006), p. 256.

40 Vera Sachetti, "Let women in: Surrealism between design, misogyny, and the gender binary", in *Objects of desire: Surrealism and design* ed. by Mateo Kries and Tatjana Cunz (Weil am Rhein: Vitra Design Museum, 2019), p.311. Dali's *Mae West Lips sofa* is perhaps its most iconic example, and an inspiration to Mollino as he would create a lip-shaped sofa for casa Devalle, see for example, Fulvio Ferrari and Napoleone Ferrari, *Carlo Mollino arabeschi* (Milan: Electa, 2006), pp. 68-69.

41 In 2003, *Fiabe per i grandi* figured on the cover, in the title of the monograph and like-named exhibition held at Fondazione Italiana per la Fotografia in Turin, *Carlo Mollino: Fiabe per i grandi 1936-1943*.

42 The resonance between Mollino's and Ray's photographs has been pointed out by several scholars, see for example, Forster, 'The Master of Desiring', p. 6. The pseudonym in the name of Mollino's first private interior, casa Miller, may also be indicative of the inspiration of Lee Miller and surrealist photography.

Ermanno Scopinich in his introduction to *Ritratti Ambientati di Carlo Mollino*.⁴³ Scopinich further stresses the importance of the "environment" created by Mollino to (best) accommodate and 'to best enhance their beauty, their charm, and grant me this, their sex-appeal'.⁴⁴ Scopinich thus renders explicit how the women photographed by Mollino were, as Lee Miller stated about herself, 'positioned as an erotic object for the male gaze'.⁴⁵

It highlights the imbalance of power inherent in the artist-model relationship. Elisabeth Bronfen points out how the portrayer is driving the transformational process of portraiture. She writes: 'given that the artist must always make choices in respect to gesture, pose and setting, the question that any viewing of a portrait immediately raises is whether it is

43 Ermanno Scopinich, "Ritratti ambientati di Carlo Mollino", in *Occhio Magico*, ed. by Ermanno Scopinich (Milan: all'insegna del Pesce d'Oro, 1945), p.4. Original citation: "Mi par di vedere queste figure femminili entrare nella sala di posa di Mollino che deve essere un felice incrocio tra un laboratorio fantomatico ed un razionalissimo studio a la Gropius, (...)"

44 Scopinich, "Ritratti ambientati di Carlo Mollino", p. 4. Original citation: "(...) il viso, la figura inquadrati ed impaginati nella cornice che maggiormente si adatta ad essi, nell'ambiente che maggiormente valorizza la loro bellezza, il loro fascino e, concedetemelo, il loro sex-appeal."

45 Cited in Sachetti, "Let Women in", p. 318.

Figure 8.

Piero Martina amidst still-lives, studio Piero Martina, Torino, ca. 1942. Photo: Carlo Mollino, Politecnico di Torino, Sezione Archivi Biblioteca Roberto Gabetti, Fondo Carlo Mollino, ACM 1.42.1.





Figure 9.

Photographic suite: life model with butterflies, studio Piero Martina, Torino, ca. 1939-1940. Photo: Carlo Mollino, Politecnico di Torino, Sezione Archivi Biblioteca Roberto Gabetti, Fondo Carlo Mollino, ACM 4.29.002.



Figure 10.

Photographic suite: life model feigning sleep, studio Piero Martina, Torino, ca. 1939-1940. Photo: Carlo Mollino, Politecnico di Torino, Sezione Archivi Biblioteca Roberto Gabetti, Fondo Carlo Mollino, ACM 4.29.004.



Figure 11.

Ragazza con farfalle II, mixed media, Piero Martina, 1965. Private collection, Torino.

merely the imitation of a particular model or whether it does not also signify the painter himself'.⁴⁶ In a similar way, we could ask for the photographic portrait of a particular model: does it also signify its photographer, who has a hand in steering gesture, pose and setting? Scopinich describes the moment of the photographic shot as a transformative moment. For him, it is the moment of overcoming 'the stiffness that we all feel in front of a camera lens', and the difficulty to so 'guide, almost steer, a subject [...] until this hostile rigidity is transformed into a silent but intimate conversation between positive and negative'.⁴⁷ Scopinich recognizes this transformative moment in Mollino's *Ritratti Ambientati* as Mollino guiding the female model over a figurative threshold into the "fantastical world" of his making, as one in which, '[i]n short, they have entered the magical atmosphere of Mollino'.⁴⁸ By luring them into his "enchanted" male *cabinet* interior, Mollino toys with the cultural notion equating women with their interior. It is not so much "her interior" ("her context" as Bronfen specifies for the female portrait sitter), but rather "his interior" that the female model enters when she has her portrait taken in casa Miller. Rather than the interior and its objects telling something about a particular woman photographed, it is the female figures photographed in casa Miller that come to represent Carlo Mollino and his *Occhio Magico*. Following Bronfen, we could read Mollino's female portraits as signifiers for himself. Carlo Mollino signed some of his female portraits, bestowing prestige on the portrait with the artist's signature, just as 'portraiture turned into self-portraiture'.⁴⁹ Perhaps unsurprisingly, Mollino's *Ritratti ambientati* for *Occhio Magico* became a heavily fetishized collector's item, which came to define Mollino's image.

Butterflies everywhere

Another photograph, Carlo Mollino, shot at Piero Martina's studio shows the painter seated in an armchair. To his right, a still-life setting is arranged on a high round table. To his left, a painting of another still-life is displayed on an easel, its objects still set and reflected in a mirror in the back of the studio (Fig. 8). In other words, the photograph depicts the painting of a still-life, the still-life setting itself, its mirror image, plus another still-life. It presents

⁴⁶ Bronfen, *Crossmappings*, p. 19.

⁴⁷ Scopinich, "Ritratti ambientati di Carlo Mollino", p. 5. Original citation: "Quanto sia difficile guidare, pilotare quasi, un soggetto sino a che questo perda l'irrigidimento che tutti proviamo di fronte ad un obiettivo fino a che questa rigidità ostile si tramuti in un colloquio silenzioso ma intimo, tra positivo e negativo, (...)."

⁴⁸ Scopinich, "Ritratti ambientati di Carlo Mollino", p. 4. Original citation: "Insomma sono entrata nel clima magico di Mollino."

⁴⁹ Bronfen, *Crossmappings*, p. 22.

us with a *mise en abyme* of still-lives. In a certain sense, the painter sitting among all these props, refutes the prototypical portrait of the artist in his studio as creator amongst his creations. Piero Martina is not shown at work, but at rest and taking the place of the sitter. Leaning nonchalantly in the armchair, holding up one arm on the armrest, cigarette in hand, and staring dreamily out of the picture, he seems to be flaunting what Maria Roberto describes as 'the dreamed inactivity that characterizes the long poses of the models'.⁵⁰ A partial cast is shown leaning with its head against the canvas of the still-life painting. Its hollow backside, turned to the viewer, finds a resonance in the painter's bodily presence, facing the camera.

The still life to Martina's right depicts a bulbous vase and giant seashell – the very props visible in Mollino's photograph *Camera incantata* and Martina's painting *Rose e conchiglie* (1942) – to which a crystal glass with alcoholic drink is added. Taking a closer look at the table, we also recognize butterflies fluttering on the tabletop; that is to say, paper butterflies cut out from a nature encyclopedia. On a folding screen in the back, a spread depicting exotic butterflies is displayed, the missing corner of the page betraying cut-out traces. Surprisingly, a butterfly appears above Martina's head. Comparison with other studio photographs reveals that these mysterious wings are painted in a few brush strokes on a dark folding screen covered in painted butterflies, placed in the dark recesses of the studio interior.⁵¹ Both Martina and Mollino used spreads from a natural encyclopedia as a source for butterflies, first cut out and applied in their interior decorations, then painted and photographed. Indeed, the butterfly would appear as a recurring symbol in both Martina's and Mollino's oeuvre.

In addition to the one described before, Mollino shot a second suite of photographs in Martina's studio with the same female model, now centred on the topic of sleep and using butterflies as a prop (fig. 9-10). A first photograph shows the model seated in front of three display cases filled with butterflies (fig. 9). A cloud of butterflies sits on her chest while two butterflies cling to her hair. She turns her head away from the camera, in what seems like a slightly contemptuous expression. One imagines her sitting completely still so as not to scare away the cloud of butterflies (or better, damage their dried, brittle wings). A second photograph shows the model in a striped

⁵⁰ Roberto, "Tasselli per Piero Martina", p. 20.

⁵¹ Similarly, butterflies emerge from cloudy mirroring panels in Mollino's interior design for casa Devalle (Via Alpi 2).

morning gown, seated sideways on an armchair. Seemingly asleep, she rests her head on her left arm that is swung over the top of the armchair.

The creative exchange between Mollino and Martina was not a one-way street. It was not just Martina's studio inspiring, or triggering, Mollino's photography. Rather, it seems that Mollino's photographs found resonance in Martina's work as well. A later series of paintings by Martina, titled *Ragazza con farfalle* (dating from 1952 to 1962), combine Mollino's photographic compositions into a girl asleep amidst butterflies. The titles and serial nature of the paintings equally deny the sitter her identity. In *Ragazza con farfalle II* (1962), some butterflies have flown up, circle the sleeping girl, and 'seem to entangle themselves in the maiden's silence and absorb her thoughts and dreams', as writer and art critic Nicola Ciarletta noted at the time.⁵²

The themes of dream and sleep in relation to the butterfly, come together in the notion of *farfalle crepuscolari* or 'twilight butterflies' characteristic of *Crepuscolarismo*⁵³ or the "twilight school". This group of early twentieth-century Italian poets turned their nostalgic and disillusioned gaze to simple things, and expressed themselves in a direct, unadorned language.⁵⁴ For some, the metaphor of the butterfly takes on a much more possessive meaning in Mollino's later work. For "twilight butterflies" may lead us to the infamous bedroom of Mollino's last secretive interior, known today as Museo Casa Mollino, located at the river Po, just a two-minute walk from Piero Martina's home. The mythology of Museo Casa Mollino connects Mollino's collection of butterflies displayed on the walls of his bedroom to his erotic photographic collection of women. In the bedroom-as-Egyptian tomb theory, they are supposed to accompany him in the afterlife.⁵⁵

⁵² Nicola Ciarletta, "Martina pittore del sonno", *Momento sera*, written on the occasion of Martina's exhibition as Galleria Il Pincio in 1951. Original citation: "(...) le farfalle sulla tavola della ragazza addormentata, che paiono irretirsi nel silenzio della fanciulla e assorbirne i pensieri e i sogni."

Between 1940 and 1966, Martina would produce five versions of *Ragazza al cembalo*, depicting a girl seated at a clavicymbal, seen from the back with a butterfly-like ribbon in her hair.

⁵³ Critic Giuseppe Borgese coined the term in 1910, in his article titled "Poesie crepuscolari" in which he perceived the nostalgic but unadorned style as the "twilight" to the the decadent, ornamental poetry of Gabrielle D'Annunzio's day.

⁵⁴ Antonella Martina, daughter of Piero Martina pointed out the resonance with the poem *Il Gelsomino notturno* (*The Night Jasmine*) (1907) by Giovanni Pascoli, in which the *farfalle crepuscolari* to these flowers blooming in the twilight. Interviewed by the author held on 14 November 2022.

⁵⁵ See Rosanna McLaughlin, "Mirrored Walls, Custom Erotics, Supernatural Tales: Behind the Mythology of Casa Mollino", *ArtReview* (2020), <<https://artreview.com/mirrored-walls-custom-erotica-supernatural-tales-behind-the-mythology-of-casa-mollino/>> [accessed 25 July 2021]

Conclusion

Starting from Carlo Mollino's *Camera incantata*, this essay has examined the implied relation of this studio self-portrait to the sequence of situated female portraits, shot in Martina's artist's studio and in Mollino's own *cabinet* interior casa Miller. Close readings of Mollino's photographs in relation to Martina's paintings, disclose a cross-over of objects, topoi and conventions specific to each genre, ranging from the self-portrait of the artist in his studio, to the still-life, to the painterly female portrait, to art photography and the fashion shot. They allow us to puncture the "enchantment" of *Camera incantata* in its reliance on established ideas about the mystique of the artist's studio in relation to the female model as a means of demonstrating what Mary Bergstein describes as 'an otherwise invisible essence of masculinity in art'.⁵⁶ Indeed, *Camera incantata* came to stand for Mollino's male artistic persona, constructed within his *cabinet* interior populated by female models. The (historic) relation between the artist's studio and the male *cabinet* has proved revealing in this sense. At least since modernism, mediated images of the male artist-occupant in his interior frequently became the most reproduced, accessible and best-known part of the oeuvre, for which Mollino is a case in point.

The "enchantment" that Mollino's and Martina's studio and *cabinet* imageries claim to display can be traced back to certain tropes in art (such as the Venus figure and the butterfly), and to the thematic focus of contemporary artistic movements (such as *Pittura metafisica*, *Realismo magico*, *Surrealism* and *Crepuscolarismo*). "Women" enter these male spaces as a muse, in the form of a sensuous Venus figure or in a cloud of butterflies. In the radicalized space of the *cabinet* as a space of collection and male self-representation, "woman" appears objectified, fragmented, and out of reach in a mise-en-abyme of still-lives, mirror images, painterly and photographic representations. Mollino's female interior portraits seem to inverse the notion of *ritratti ambientati*: much like the female body becomes an attribute of art, so does the female body become an attribute to Mollino's interior design. Mollino's *cabinet* portraits rely on a double suggestion – of not so innocent enchantment – in their allusion to his identification with his interior creations and the erotic latencies within. As an object in the male *cabinet*, the female portrait is appropriated and becomes absorbed in an imagery of male self-representation and as an object of male gratification.

⁵⁶ Mary Bergstein, "'The Artist in His Studio'", p. 57.

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Biography

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Laura Darlington

Obscuring the Camera Obscura



Figure 1.

Roseate
(Obscura
Oracle), 2019

Obscuring the Camera Obscura

Roseate, a 2019 site-specific public art project, explored the connection between vision and state of mind by using tinted lenses to interact with the historical camera obscura in Santa Monica, California, and the resulting documentation and artefacts were exhibited at the Camera Obscura Art Lab. Within what is essentially a model of the eye, images of the outside world were projected 'through rose-coloured glasses', altering reality to examine the blurred line between optimism and delusion, as well as the rituals we perform to conjure change. *Roseate* opens an inquiry into the camera obscura as a constructed space of observation that informs scientific investigation, artistic representation, and spiritual practice.

Unlocking the Treasure Room

A camera obscura demonstrates the phenomenon wherein a small aperture or pinhole lets light into a darkened space, projecting an inverted and reversed moving image of the outside world. Known as a *camera obscura*, *cubiculum obscurum*, or *locus obscurus*, these terms translate to 'dark room' or 'dark place'. Technological advancements over time have augmented image quality and accuracy with the addition of lenses, mirrors, diaphragms, and projection surfaces. The desire for the fixity of these ephemeral images inspired artists to trace the projections and influenced the development of the photographic process, with the portable box-type camera obscura related to the photo camera in both concept and name.

While there is speculation that pinhole projections shaped art and architecture in the Stone Age, the earliest recorded descriptions of the phenomenon are found in ancient China. The mathematical astronomy text *Zhou Bi Suan Jing (On the Gnomon and the Circular Paths of Heaven)*, begun in the 10th century BCE, reports on the use of a pinhole-pierced sundial,¹ and the philosophical text *Mozi*, begun in the 5th century BCE by Mozi and his followers, introduces a theory of optics and describes a pinhole allowing inverted images into a 'locked treasure room'.² Aristotle documented a solar eclipse projected through a screen of foliage in the 4th century BCE,³ and both Chinese and Greek philosophers utilized the optical properties of curved mirrors for projecting images.⁴

1 Chatley, 144.

2 Purtle; Hammond, 1.

3 Maes, 9.

4 Purtle, 87–88, 113 n69–70, 116 n124; Stafford, 24.

During the Islamic Golden Age, Ibn al-Haytham, the 'father of modern optics', revolutionised understanding of light, vision, and the mechanics of the camera obscura in his 11th century book *Kitab al-Manazir (Book of Optics)*.⁵ Leonardo da Vinci studied the phenomenon in the 16th century, diagramming the camera obscura as a model of the eye,⁶ and scholars of the era began adding convex glass lenses and concave mirrors to correct the projections, transforming the pinhole camera obscura into the optical camera obscura and facilitating a new concept of vision that cross-pollinated the concurrent evolution of the microscope and telescope.⁷

5 Shaprio, 79; Purtle, 81.

6 Wenczel, 24; Purtle, 86; Bailey, 72.

7 Lefevre, 6–8; Wenczel, 15.

Figure 2.

Santa Monica
Camera
Obscura Art
Lab, 2019



In the 17th century, Johannes Kepler coined the term *camera obscura* and used the device to deduce the workings of the retinal image, distinguishing between the real (*pictura*), the physical projection on the retina, and the virtual (*imago*), the perception of that image,⁸ while René Descartes extended the metaphor of the eye as a camera obscura to argue for the mind rather than the body as the site of perception.⁹ In addition to its use as a philosophical and astronomical instrument, the camera obscura was used as a surveying tool, and was soon a common and increasingly compact device – in the form of a tent, portable closet, or later a small box – for artists and tourists to replicate what they saw by tracing landscapes projected *en plein air*.¹⁰ The camera obscura was also a source of entertainment, and the enthusiasm of the 17th century built to a craze by the 18th century,¹¹ when a pinhole projection pavilion was a fashionable addition to the domestic garden.¹²

In his 16th century book *Magia Naturalis (Natural Magic)*, Giambattista della Porta instructed on the staging of fantastical theatrical performances to be projected through the camera obscura,¹³ and such generation of illusion and spectacle proliferated in the 18th century. Pseudoscientists, magicians, and charlatans employed the camera obscura – as well as its cousins, the magic lantern and the solar microscope – to astonish, spook, and hoodwink, and these projective devices were eventually relegated to the vulgar sphere of popular entertainment as instruments of ‘artificial magic’.¹⁴ In tandem, the architecture of the stationary camera obscura shifted from functional to ornamental, and devices mounted in fanciful follies designed to attract tourists flourished at world’s fairs, public parks, and beach boardwalks.¹⁵

Experimenting in the Art Laboratory

The Camera Obscura Art Lab in Santa Monica, California, contains one of the few historical camera obscura devices remaining on the west coast of the United States (Fig. 2). In 1898, the mayor of Santa Monica, Robert F. Jones, built a seaside camera obscura in an octagonal wooden pavilion raised on pilings over the sand. The camera obscura was purchased by the

8 Shapiro, 75; Dupré, 221; Friedberg 8, 62.

9 Crary, 43; Shapiro, 91–92; Friedberg, 51–52; Bailey, 73; Campbell.

10 Lefevre 7; Gernshiem, 27; Park, 247–248.

11 Gernshiem, 27; Lefevre, 5.

12 Maes, 11.

13 Gorman, 42; Friedberg 66–67.

14 Gorman, 47–50; Stafford 81, 85; Bailey, 75–76.

15 Maes, 12.

city in 1910 and moved uphill into the ‘ramshackle quarters’ of a two-story octagonal folly on the bluffs overlooking Santa Monica Bay; this was meant to protect it from coastal storms and also lure tourists to what is now known as Palisades Park. Admission fees were abolished and soon the camera obscura began to double as a senior recreation centre.¹⁶ In 1955, the senior centre was expanded in midcentury-modern style by Weldon J. Fulton, and the camera obscura was rehoused in a two-story cube structure labeled with oversize scripted lettering and an abstract camera icon. The city designated the camera obscura as a landmark in 2007 and rededicated the space in 2013 as a creative community centre, eventually known as the Camera Obscura Art Lab.¹⁷

Despite its various architectural incarnations, Santa Monica’s camera obscura has always featured a rotating turret mechanism – described by the local press as a ‘cupola sitting like a birdhouse’ – atop a dark room.¹⁸ A wooden captain’s wheel allows the viewer to spin the copper turret for a panoramic 360-degree view, and an angled mirror and lens within the turret reflect and project an image of the exterior surroundings onto a large, blank, circular disc that stands like a table in the centre of the room below.

My 2019 public art project *Roseate* involved interventions using rose-tinted lenses decorated with glass eyes, rose quartz crystals, candle wax, and suspended by balloons, to filter the projections of the Santa Monica camera obscura. Within a space that mirrors the workings of the human eye, reality was viewed ‘through rose-coloured glasses’ in order to investigate the connection between vision and state of mind, the blurred line between optimism and delusion, and the rituals we perform to conjure change. These experiments were documented through photography and the resulting images and sculptural artefacts were displayed in the adjacent Art Lab (Fig. 5).

Colouring the Mystical Cosmetic

Although the imprecision of early lenses resulted in unwanted distortions and chromatic aberrations, tinted lenses and mirrors have also long been purposely employed to alter vision and perception. In the 18th century, dimming spectacles came in multiple colours capable of softening harsh light, and artists as well as tourists used tinted mirrors and filters

16 Grausz; Meares; Santa Monica Conservancy.

17 Wuellner & Gupta-Agarwal, 14–15; Santa Monica Conservancy.

18 Meares.

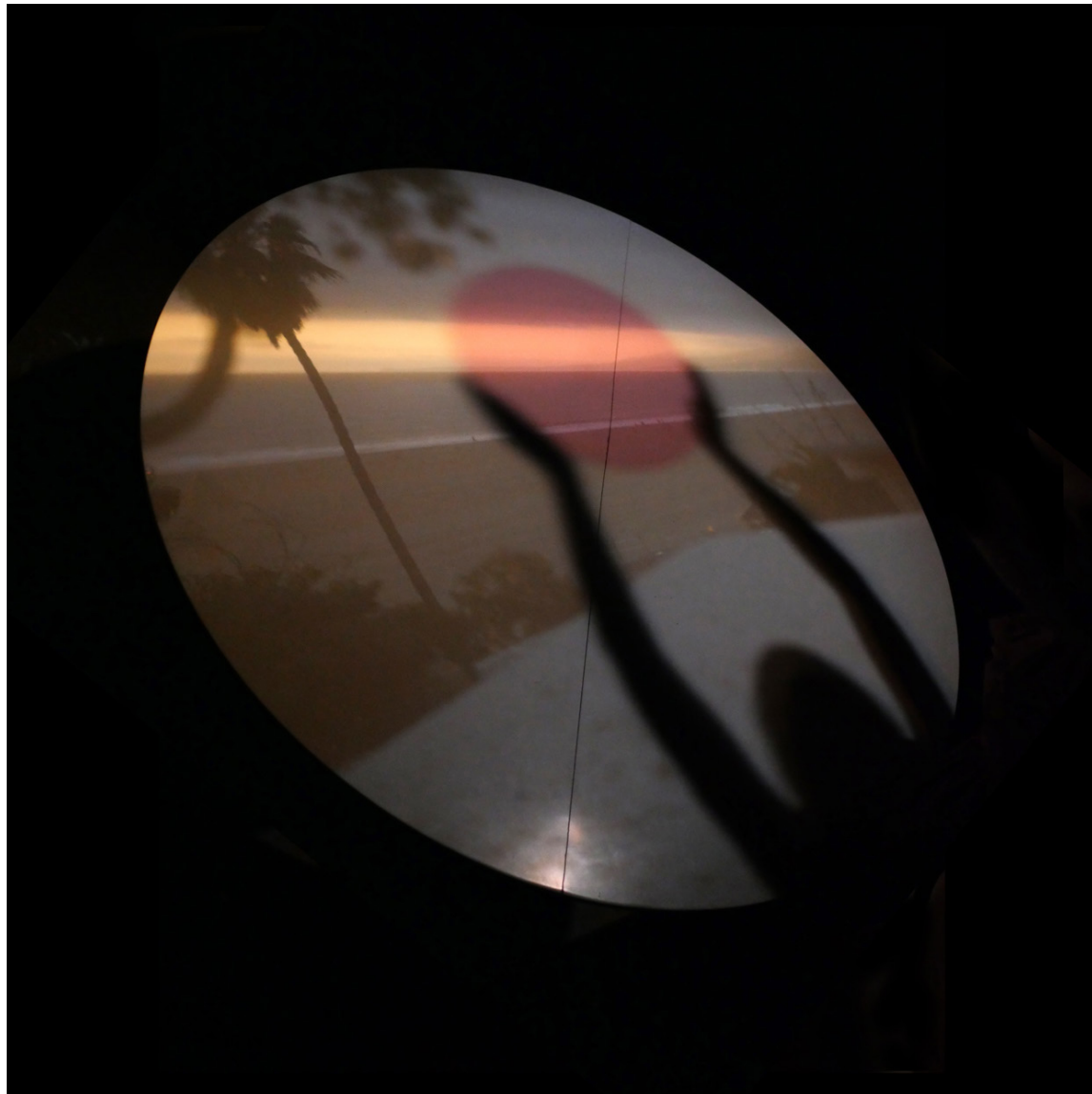


Figure 3.
Roseate (Solar Return), 2019



Figure 4.
Roseate (Good Eye), 2019

to colour the landscape in a more romantic cast.¹⁹ The idiom 'seeing through rose-coloured glasses' or 'rose-tinted spectacles' was commonly used in the English language by the mid-19th century to mean seeing things in an overly optimistic light.²⁰ This metaphorical usage stems from the 18th century, when 'rosy' grew to mean not only rose-coloured and healthy, but hopeful and auspicious.²¹ The term 'roseate' – often used in literature to poetically describe the dawn light, in the fashion of the Homeric epithet 'rosy-fingered dawn' – can be defined literally as rose-coloured and figuratively as optimistic. In *Roseate*, tinted pink filters were intended to synaesthetically colour both the literal projection and the emotional reaction to the projection.

A cheerful, saturated pink colour purported to reduce aggression was identified in 1979 by Alexander Schauss and named 'P-618', then renamed 'Baker-Miller pink' after the Naval correctional officers who first tested the paint colour. The perceived success of these tests led to detention cells around the world being repainted pink, as well as a new nickname for the colour: 'drunk-tank pink'. Schauss claimed that the effect was stronger in spaces 8-by-10 feet or smaller, and that the colour even had the power to soothe those who were blind or colour blind, hypothesising that 'undetermined neurochemicals in the eye communicating with the hypothalamic centre are suspected' – a somewhat metaphysical conjecture.²² However, a recent study was not able to support the claim that Baker-Miller pink has a calming effect.²³

While wavelengths and pigments have objective properties, the perception of colour is subjective, with colour blindness at one end of the spectrum and tetrachromacy – that small percentage of people who can detect far more colours than most – at the other. Some research has shown that colour stimuli can affect emotion and behavior, spawning a school of colour psychology and the new-age chromotherapy industry. A 2014 French study determined that a pink background augmented recognition of happy facial expressions and interfered with recognition of sad expressions,²⁴ supposedly illustrating the phenomenon of *la vie en rose*. Yet correlation

19 Stafford, 23; Florian, 68; Park, 248.

20 Doyle, 75.

21 OED.

22 Schauss, 55, 58.

23 Reithinger, 182.

24 Gil & LeBigot.

is not causation, and complex mediating factors including cultural context, affective state, and physiological characteristics cast a shadow on any tidy conclusions.²⁵

Aristotle hypothesized that it was colour and not light that activated vision, and the 16th century Jesuit François d'Aguilon warned of the dangers of macabre spectacles generated with the camera obscura, citing Lucretius' 1st century BCE caveat that colour particles could be transfused through light and 'infect' the viewer.²⁶ Related optical media such as magic lantern slides and early films were often hand-tinted with bold colours; Tom Gunning observes that the colours applied to silent films were conscious 'incitements to fantasy' rather than literal attempts at natural colour, and monochromatic tinting with a single all-over colour created a 'sensual metaphor' meant to stimulate emotion.²⁷

Colour itself is only the effect of reflected and absorbed light waves – as Herman Melville illuminates, colour is 'but subtle deceits, not actually inherent in substances, but only laid on from without; so that all deified Nature absolutely paints like the harlot', with light as the 'mystical cosmetic which produces every one of her hues'.²⁸ The pink lenses of *Roseate* daubed the common world with rouge, camouflaging pale reality and eliciting an opti-mystic response while highlighting the nature of illusion.

Observing the Everyday Enchanted

A dictionary from the 18th century describes the camera obscura as 'this most Wonderful and Glorious Experiment, tho it be very common'.²⁹ The livestream projections of a camera obscura are not dissimilar from today's ubiquitous surveillance video, yet somehow the wonder of observing this analogue of life unfold in real time takes on the qualities of *le merveilleux quotidien*, the Surrealist notion of the marvellous quotidian, the magical mundane. The Santa Monica camera obscura displays a picturesque view of the sunset over the ocean, yet also shows the everyday goings-on of the city: traffic, tourists, and the crisis of the unhoused population, living pictures in hyperreal motion.³⁰ For me, the camera obscura provides an uncanny portal into the city where I grew up, a city I can no longer afford to

25 O'Connor, 233; Reithinger, 182.

26 Wenzel, 95, 100.

27 Gunning.

28 Melville, 217.

29 Park, 14.

30 Gorman, 39; Park, 1–3, 41.

live in, and the mechanism of the device emphasizes this dissociation of the familiar – the silent, dreamlike projections offer a tantalising mirage just out of reach.

A dark room echoes a primordial cave, as well as the recesses of the mind; as Barbara Maria Stafford maintains, 'the chthonic cavern and the fluid darkness of the mind are parallel moist habitats conducive to dreams, madness, delusion.'³¹ The cave of the camera obscura parallels the 18th century Gothic grotto as an intermediate space for contemplation and imagination;³² the spring-fed City of Santa Monica – named for the tears wept by its patron saint³³ – reflects the sacred springs of Classical grottoes, and the use of decorative crystals in *Roseate* mirrors the mineral ornamentation of Alexander Pope's renowned camera obscura grotto.³⁴

In Plato's 4th century BCE *Allegory of the Cave*, benighted prisoners in a cave can only see the shadows of the outside world projected by firelight on the wall; they believe these illusions to be an accurate representation of reality because this is all they know. Susan Sontag argues that our fascination with photography leaves us chained in Plato's cave, where we traffic in 'mere images of the truth'.³⁵ Yet shadows are more than remnants of reality; they act as a dynamic medium between dark and light, life and death.³⁶ The projections of a camera obscura embody the expression of the animated spirit spanning from the Paleolithic cave tracings of shadows projected from firelight,³⁷ the shadow puppet theatre of ancient Asia,³⁸ to the shadow silhouetted in *Roseate* (Fig. 3).

The camera obscura acts as a theatre, providing a dark space that heightens perception and presents a virtual window onto the real.³⁹ In *Techniques of the Observer*, Jonathan Crary builds upon 17th century theories of the camera obscura – including Descartes' architecture of perspectival vision and John Locke's concept of the camera obscura as a metaphor for intellect,

with light entering the dark closet of the mind⁴⁰ – arguing that the device cultivates an autonomous, rational subjectivity in a world of measured space and objective truth. The camera obscura offers the observer a 'vantage point on the world analogous to the eye of God' (Fig. 4),⁴¹ exacerbating the divide between subject and object, sensation and logic, body and mind.⁴²

40 Crary, 41–43; Bailey, 73–74; Maes, 10.

41 Crary, 48.

42 Crary, 38–39, 43; Bailey, 60–61, 64–67.



Figure 5.
Roseate
(Installation
view), 2019

31 Stafford, 78.

32 Park, 3, 136–137, 152, 161, 164–165, 168, 175; Volz, 185.

33 Santa Monica Conservancy.

34 Park, 3, 133, 153, 155–157, 164.

35 Sontag, 3.

36 Stafford, 67.

37 Stafford, 66.

38 Purtle, 80; Stafford, 75.

39 Friedberg, 21, 61, 152; Park, 16, 148, 165.

This idea of the camera obscura as a contained, isolated, orderly space of disembodied reason is countered in *My Dark Room*, where Julie Park contends that the camera obscura is instead a dynamic, interactive, disorderly space of embodied imagination; the observer is not estranged but inspired through amplified interiority to engage with the world.⁴³ Crary later questions his own elevation of fixed, single-eyed subjectivity, discussing Gottfried Wilhelm Leibniz' theory of the monad as a fractal of perspective,⁴⁴ an interdimensional theory expanded into the metaphor of *The Fold* by Gilles Deleuze. Hugh Campbell notes that the camera obscura, like consciousness, recursively 'encompasses the worlds that encompass it', and Anthony Vidler observes that the perspectival fold in a camera obscura 'both separates and brings together',⁴⁵ allowing room for the liminality of simultaneous subject and object, interior and exterior, actual and virtual, ordinary and extraordinary.⁴⁶

Conjuring the Obscured Oracle

For centuries, the dark space of the camera obscura has been a site of public spectacle and a place of congregation for observation and wonder,⁴⁷ where substance is transubstantiated.⁴⁸ During *Roseate*, the community centre of the Santa Monica Camera Obscura Art Lab became an experiential sanctuary with the device as a medium, communing with the beyond through lenses enhanced with ritual symbols.

The concave mirror of the camera obscura flips the inverted image right-side up, reflecting the mirror's function as an ancient instrument of sorcery.⁴⁹ The convex lens of the camera obscura simulates the human eye, a theme visible in the antique prosthetic glass eyes that embellished the tinted lenses of *Roseate* – recalling Kepler's notion of the *pictura* upon the 'dead eye'⁵⁰ as well as invoking the 'third eye' of insight or the *nazar* talisman against the 'evil eye' – with the teardrop shapes of deflated balloons streaming from a lens in lost hope (Fig. 5). Crystal-gazing is an age-old practice for seeking spiritual guidance, and *Roseate* incorporated lenses adorned with eye-shaped rose quartz crystals, which purportedly channel positive energy and

43 Park, 10, 15, 23–24, 133–135, 165, 248, 263, 265–266; Friedberg, 48; Campbell.

44 Crary, 50–52.

45 Campbell; Volz, 192–193.

46 Park, 9, 265; Volz 183, 192–193; Friedberg, 150; Stafford, 81; Pallasmaa, 243; Bailey, 72; Campbell.

47 Gorman, 35.

48 Stafford, 77, 82; Park 16.

49 Stafford, 110.

50 Shapiro, 92; Crary, 47.

universal love, reminiscent of 17th century Jesuit Athanasius Kircher's use of translucent gems as camera obscura lenses to illustrate divine radiance.⁵¹

Pinhole projection has been used to observe the sun since antiquity,⁵² and an 18th century poem compares the camera obscura to Prometheus stealing the fire of the sun.⁵³ Fire is a traditional symbol of enlightenment, with pyromancy as a tool of divination and candles lit to represent hope. The tinted lenses used in *Roseate* were obscured with the melted wax of Hanukkah candles, suggesting ceremonial flame, the miracle of light, and the intensity of solar fire. One tinted lens was suspended in the light of the camera obscura from helium balloons (Fig. 1), harnessing the elemental fusion of the sun while embodying both the ephemeral buoyancy and inevitable deflation of wishful thinking. The power of the balloons to lift the lens into the path of the projection was only illusory; the unseen hand of the artist held the lens aloft in the darkness, echoing the use of optical devices in the 17th and 18th century by priests to demonstrate 'miracles', as well as in the 18th and 19th century by magicians to conjure phantasmagoria.⁵⁴

The mystical aspects of *Roseate* were presented in a playful manner, just as the development of the camera obscura was informed through experiments, social and intellectual games, and magic tricks.⁵⁵ *Roseate* toyed with the supernatural, taking colour therapy and crystal healing with a grain of salt, while acknowledging the capacity of wonder as a catalyst for transcendence. The camera obscura projects the illusion and truth of the everyday enchanted, and viewed through *Roseate*, the oracle is simultaneously obscured and revealed, coloured by the rituals and delusions that give us hope.

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51 Crary, 33 n11.

52 Crary, 139; Stafford, 72.

53 Wensczl, 20.

54 Stafford, 48–49, 84–85; Purtle, 102–103; Crary, 132.

55 Dupré, 232–236.

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Biography

Laura Darlington is an artist based in Los Angeles, California, where she serves as Exhibitions Coordinator for the Margaret Herrick Library at the Academy of Motion Picture Arts and Sciences. She studied at Smith College, Otis College of Art and Design, and the School of Information at San José State University. Her work explores the nature of illusion, playing with notions of the eternal and the infinite through investigations into ephemerality and the edges of perception.

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Heather Mitcheltree and Fatma Mhmood

Feminism and Geography, Then and Now: in Discussion With Gillian Rose

FM

So first, we would like to speak about your most recent book, *Seeing the City Digitally*, which is at the intersection of digital technologies, visuality, and urban spaces. Could you please tell us why you chose to explore seeing urban spaces through digital technology?

GR

Yeah, sure. So, I think there were lots of reasons and they've been emerging over a period of time. But, I suppose initially — this is a shared experience in many places I imagine — just reflecting on seeing my own engagements with urban spaces shift as I moved from a mobile phone to increasingly seeing more and more digital screens in open spaces. And I guess also an emerging body of work in geography especially, which looked at emerging digital platforms and the ways that they were starting to change cities. You know, something like Airbnb changing housing markets, Deliveroo and Uber changing mobility. But we often talk about the digital as if it's just one thing, though clearly, there are a lot of different kinds of technologies doing quite distinct kinds of things.

So, I think the thing that we think most immediately about is our social media platforms, and I think they're certainly making a huge difference to the way urban spaces are mediated visually — for example, influencers and representing places online. But I think increasingly urban designers, place promoters, tourist boards and so on, are redesigning what a physical space is in order to look good on Instagram. And also, what a lot of social apps on smartphones do, maybe less social media but certainly other apps, is enable a kind of efficiency and moving around a city in as little time as possible. Getting fast services

and using Google Maps and CityMapper are the classic examples, but the assumption is that if you're in an urban space, what you want to do is move around it, and move around it efficiently. So again, there's a different kind of configuration of the urban going on there.

Alongside all those everyday or quotidian sort of uses of digital tech, I think there's a lot of enchanting uses as well. Most of the adverts we see now in urban spaces are all digitally generated, you know, there's almost no straight photography anymore. And obviously, computer generated images of completely new urban developments, they're giving us very particular visions of urban futures. There's all the visual effects in movies and computer games, which are often very distinctive visions of the urban. I think there's that kind of magical, 'how do they do that?', glamorous aura to a lot of those digital images produced in cities, and I think it is really important to think more about the consequences, especially about how they visualise different forms of urban life in different ways.

So putting all that together, cities, some cities more than others, and different parts of cities in different regions, are really being quite radically reconfigured in all sorts of registers, and through different kinds of digital technologies. So that's what's got me interested in all of this, just sort of seeing it happen, and the kind of newness of it, as well as the way it reiterates some very old social divisions and inequalities and injustices as well.

HM

I just want to jump in on a point that you were mentioning around the efficiency that is inbuilt into the algorithms and the mapping technology that we all use, and the impact that has on agency and the ways in which we connect with the urban fabric and the city itself. You know, what is kind of gone is the getting lost and the joy of the discovery of a city through maps and self-selected routes or avenues. I was wondering if you could talk a little bit about that.

GR

I think this was really brought home to me when I was in Berlin, a city I don't know very well, and I was trying to get Google Maps to take me around a route that was a 5k circular route, for a run. And it literally wouldn't. I'm not sure I was using it appropriately... But it couldn't

understand that I would want to take this circle around two places that were actually only 500 meters apart, and it's the assumption that if you're moving, you'll want to take the shortest route between two points. And I know there are ways to modify that a little bit, but the default is absolutely this sort of efficiency. I think the design of all kinds of delivery apps assume a similar kind of convenience, speed, and efficiency. And I think that has various implications, one of which is that the whole approach to the urban, which is so embedded in lots of radical urban theory about, you know, loitering, the flaneur, the flaneuse, just that drifting around, the *dérive*, is not part of the design of smartphone apps.

In the book I've written with Monica Degen called *The New Urban Aesthetic*, we talk about how a lot of these digital mediations are actually embodied and sensorial. So this is a kind of kinesthetic mobility that I think is really encouraged. It assumes mobile bodies. So it also implies that disability or a lack of mobility is a problem that needs to be fixed, which I think, again, is highly questionable. You know, bodies are different. We should celebrate that and not try to mold everybody into this efficient, mobile, constantly on the move kind of embodiment. And I think this connects to the sort of visual smoothness of the digital interface, which is also supposedly glitch-free and seamless, and all those computer-generated images always have the beautiful, clean, smooth, elegant sort of — there's a kind of feel to all of this, which I think is quite subtle but quite pervasive, which I think probably contributes to this sense that it all has to be about flow and not much about randomness or glitch or getting lost. So I think that's absolutely another important aspect to all of this.

FM

And related to the question of agency, I wanted to ask you, how do you think these digital images influence the way we understand socio-spatial relations, particularly those related to gender, race, and class in the built environment?

GR

Yeah, so I think that's a really critical question. I think, to be fair, things are getting better among the sort of commercial visualizing industry. But I do think this question of who is seen and how, the bodies that get

to inhabit images of cities, is really critical. I mean, one thing I'm learning is that in a lot of these more technical representations, like city digital twins, either there are no bodies or it seems easier to represent bodies through transport — which comes back against this question of the mobility of embodiments. When I started looking at this in a research project with Monica Degen and Claire Melhuish some years ago, a lot of the visualization studios were working in the global north — London, North America. They had very restricted visions of who might populate these images, and in particular they were very white and kind of middle-class visions. Maybe a few kids would appear, but not very often older people, and you know, people wouldn't appear in wheelchairs or... So it's a very narrow demographic that they would paste into the image as this kind of ideal urban life that you would be able to inhabit. In that kind of advertising context, I think a lot of those aspirational aspects still remain.

I think the bodies have got a lot more diverse, so you certainly see a lot more racial diversity, not least because local communities — there have been some examples in London — started to complain when new development projects were pictured with populations that didn't look like the local people in those neighborhoods. And that change is, of course, a positive thing. I think that in terms of class — and it's an interesting question how we see class, I think it's probably highly culturally specific — but in these advertising images, there's something about the kind of glamorous life that's being offered. People are often pictured, you know, maybe in workplaces or going to work, but they look well dressed, they're doing things like running healthily along the boardwalk of a new green riverside development. So I think in terms of class, it's a very comfortably off lifestyle that's being represented, and that is clearly pretty limited.

And then finally, I think there are some really important questions to ask about the relationship between who is producing all this software and the consequences of it. This is the same question being posed now in terms of artificial intelligence and machine learning, that's coming under increasing scrutiny, all the kinds of assumptions that are built into the training sets of AI and facial recognition software, and its intersection with policing and racialized surveillance and so on and so forth. So there's a whole set of issues there about, as I say, who is producing these and how they're being implemented, which I think also

feeds into this question of the visual more broadly, not just images, but the visual and how it mediates different kinds of social relations in different ways.

HM

I think that feeds into the next question. We're hoping that you could talk to us a little about modes of knowledge production and representation and the codification of knowledge in relation to the quotidian and the enchanted. So, I think that your previous comment was a nice segue into that.

GR

I find that a really challenging question, actually. You know, knowledge production is a term I am interested in. I can certainly see a sort of change in the way in which the quotidian has been engaged with over the last 30 years. I'm risking some huge generalizations here, and you may want to challenge some of them! But I think in the sort of 1970s, 1980s, into the 1990s, I think certainly feminist work had quite an ambivalent relationship to notions of the quotidian and the everyday. I think on the one hand it was a really powerful category for naming the ways in which women's labour and oppression were understood, particularly in relation to reproduction, which was understood as the everyday, the routinized, the repetitive, and which also took place in certain locations, literally and symbolically, which was the domestic. And that was seen in part as an exploitive limiting of women's potential, which is certainly the case. But also, some feminists were also trying to think about the more positive things that might come out of that, for example a commitment to care and reproduction and so on. The issue was, and feminists and other scholars have talked about this, that a lot of other critical theory at that time saw the everyday as something to be overcome by the rupture, or the excess, or the revolution, depending on your critical theory.

I think what's happened since then, is that, for a whole series of reasons, that the quotidian is really embedded as the kind of default in critical theory more generally. I think there's much less of a contrast between the everyday and the excessive or the interruptive. There are a number of reasons for that. I think one is a lot of theoretical shifts, including the increasing gains that feminist theory, critical race theory, you know,

crip theory have made — all these think from everyday experience, embodiment, subjectivity.

Performativity, I think, has been another incredibly important concept in terms of pulling big abstract structures down into the everyday and everyday experience and thinking through the personal and theoretical as political terms. I think practice theory has had something to do with that too. I think there's been a historical sort of empirical shift as well to more forms of inequality, injustice, especially the critique of neoliberalism as an individualizing discourse and ideology, that again places a very specific dynamic of power on the individual. I also think that there has been, there has always been, a real commitment in academic work, and especially in lots of traditions in urban research, around engaging with communities. This might be a little controversial, but I do think that in the UK, there are many reasons to be cautious about the impact agenda that the REF has instituted. But I do think it recognises the importance of taking academic work into everyday situations and making some kind of difference. So, I think there's a whole bunch of things going on there that have made the everyday really generative sites for all sorts of reasons.

HM

Many of our contributors have used emergent digital technologies to develop really interesting and novel approaches to research methodology, analytical frameworks, and representational strategies. I think it's quite interesting how they're challenging the institution of academia around what we deem knowledge production. So, I'm just wondering whether you see some of these emergent digital and creative practices as creating spaces for new voices within the built environment and academia as well?

GR

One of my long-standing interests has been around visual research methods and certainly creative methods are part of that. It isn't, though, something I do myself as a researcher. On the one hand I think these creative experiments are really incredible and amazing. I can see that there's a lot of theoretical resources that can be generated by these kinds of experiments. And of course, creative practice in other forms is really core to co-production and working with communities. But also,

I suppose I'd also like maybe to pose some questions about creative practice and its efficacy, because it has been going for a long time, and I think those long histories and what we might learn from them about precisely what kinds of change they achieve are perhaps not sufficiently acknowledged.

As a social scientist, I do think producing robust, in-depth, evidenced research using conventional and well-established methods is actually an important strategy, particularly in an era of misinformation. I think that matters. It can be quite slow, but I think it's important not to give up on it. I think there are lots of more conventional co-production and collaborative projects which have worked long-term with communities and I think those long-term commitments are really important to start to generate the kind of change that we would hope might follow from more experimental methods. Because I think a lot of community art projects — and there have been critiques of this — can parachute in and then parachute out again. This can be exploitative of people and places. But these kinds of things tend not to be discussed. I also have a feeling that a lot of these experimental practices are driven by a huge pressure to be innovative, right? But I think that if that comes at the cost of not reflecting sufficiently on people that have actually done very similar things previously, and what they've learned, and how it worked and how it didn't work, that may not be so radically new, but it might actually end up rather more robust and thoughtful potentially. There's also a question about scaling it up — how a particular experiment in one place might then travel to others as a more standardized methodology that might start to gain traction and become, you know, something that accumulates to more than yet another local novel project. I think that that's a real need, especially at the moment, and it is quite hard to achieve.

FM

Onto the question of landscape... So, drawing on the chapter on 'Looking at Landscape: The Uneasy Pleasures of Power', in your book *Feminism and Geography*, there's this part where you talk about how the interpretation of landscape relates to or is primarily based on the objective gaze of the fieldworker. In relation to the gendering of landscapes, what do you think are some of the approaches to seeing the gendering of landscape, particularly in relation to public and private

spaces? So perceiving, for example, domestic versus public landscapes as either feminine and masculine, and maybe more specifically in relation to the spread of digital images? Because I think in a way it also ties to the question of agency. Like who is presenting what and by whom?

GR

That's a really interesting question. So, I have a particular take on landscape because of some debates about landscape as a concept that were really key to my discipline of geography and our whole participation in the 'cultural turn'. So, if you want to use it, particularly in relation to public and private, I think I would translate landscape into a sense of public spaces and the kind of panoramic view of public spaces, let's say in cities, and it tends to be a view that lays spaces out to be visible, to be comprehensible. It's a kind of powerful and distancing view. And I think certainly in a lot of smart city imagery and in city digital twins, these kind of efforts to use data to manage cities more efficiently, the visualizations of those (particularly city digital twins), actually draw on this very similar kind of masculinist gaze, this time apparently made more rational by data — particularly the idea that we can convert the city into data and therefore we can make evidence-based rational decisions because data itself is not, apparently, a problem. So, you have this, I think, a continuing masculinist gaze, and I think it's masculinity is underlined by the big promotional culture that surrounds a lot of these new technologies. The advertising images increasingly include more women and people of color, but basically it's the same powerful claim, you know, 'we know the city, and we therefore know how to manage it and what to do with it'. So that leaves the domestic kind of hanging a bit, really. The landscape gets sort of converted, implicitly, into notions of public and external spaces.

So, I've seen a few digital twins that incorporate building information models, and they seem to allow this gaze to look at public spaces, but then also literally fly through walls and windows to look at the internal office or domestic spaces as well. But in the domestic spaces, what you often see in them are women, and youngish women looking after children. So you end up with this kind of super-duper, apparently very modern, cutting-edge way of looking at cities where women are still

at home looking after the baby, which clearly is not very modern or cutting-edge at all.

FM

On the same point, how do you think a reflexive approach, specifically in academic research, can challenge these views and the perpetuation of gender stereotyping, specifically to the construction of identities?

GR

I think more reflexivity would be a really good thing. I mean, it depends what kind. So, I personally value a reflexivity that's about modestly and hesitantly situating yourself, rather than claiming omniscience about your own position. I think making visible in some way or making evident the sort of process of knowledge construction is really, really, critical because if you can flag that knowledge has been made one way, then it's possible also then to make it another way, and it kind of opens things up. So, I certainly think reflexivity, a kind of thoughtful and hesitant reflexivity that really thinks through your own investments in what you're looking at, is really important.

And reflexivity doesn't have to be all about the self. It could actually be about learning. Even if you're not looking at women, black bodies and disabled bodies, everybody can learn from the amazing thoughtful and diverse work that's been done in all those areas. I think there's also an obligation in critical urban studies now to engage with those literatures. After all these decades of this kind of critical work, I would find it incredible that someone would address the urban public space without thinking through those kinds of issues.

HM

You spoke earlier about the situatedness of women within the domestic sphere - not necessarily that's where they reside, but that's where they're visualized in a lot of the digital imagery that we're seeing and the sort of 3D conceptualization of schemes or imaginary parallel cities, twin cities, and digital spheres. I'm going to take you back a little bit to some of your earlier work with feminism. In your chapter on 'Women in everyday spaces', you wrote about the oppressiveness of the everyday and the cult of domesticity. So I was just wondering if you could talk to us a little bit about that.

GR

Well, *Feminism and Geography* is very much of its time. It came out in a moment which I kind of feel that we've moved on from. So those kinds of arguments about, well, it's production and reproduction, and you know, gender difference map onto that distinction, they feel a bit over-simplistic now. Having said that, I do also see a revival of those sorts of arguments, I think there's been a kind of revival of a certain kind of Marxist work. But also the same is true, I think, in terms of thinking about the politics of bodies. I could say women's bodies, but of course that category itself now is more complex than it once was. Recent events have suggested that women's bodies are still a political battlefield, right? You know, rights over them, how they can be made and remade or left behind or transfigured or refused or whatever, that remains an incredibly contentious area. And I think it's a kind of salutary reminder, really, that there seems to be a moment where some things seem to have shifted and some things seem to have opened up, at least for some people. And now a lot of that gain seems to have been lost, and a lot of it is back to the politics of embodiment. It's not like we've moved on and we're now fighting different battles. Some of the old battles are returning. Well, it ties back into the comment about reflexive practice, doesn't it? Re-examining what's gone on before, what we've done before, and how it applies within the current context.

HM

Which brings me to the next question. In your book on *Feminism and Geography*, you talk about the criticism that geography faced (and other disciplines — it certainly applies to architecture), in relation to the under-representation of women in geography, and I think that same critique could be applied to a whole range of different groups and demographics and subgroups, not just women. At the time, you wrote about the sociocultural movements that fed into a more feminist, or a more explicitly feminist geography, and the push for the need for that. So, since that point, there's been some significant social changes, and certainly shifts in thinking within academia. And social movements like the Arab Spring, Black Lives Matter, Me Too movement, just to name a few. So, I was wondering if you could just talk a little bit about the ways that you see some of these changes as impacting upon the discipline?

GR

These are huge questions, and I think that that's a really amazing and important question to ask. And I think it will need some really careful thought actually around exactly what the criteria are, I guess, of figuring out how an academic work is changing. Without doubt, it's true that the kind of social movements that you were pointing to, certainly in geography, have had a really profound impact on the discipline, opening it up to new issues and new voices. There have also been some institutional efforts to support diversity by revising curricula and recruiting from a much wider talent pool. I think there's much more focus on the climate crisis as well, actually. There's much more interest than there used to be on environmental justice and the intersection of those movements with environmental politics of many kinds. Maybe this comes back to the quotidian. It's a very kind of materialist approach... How that relates to changes in, you know, who is actually producing this work, I think that's a more complex question, particularly because I think it's a more interdisciplinary question as well. I mean, I certainly think that the—my impression is that it's been—there are more kinds of tactics and tools available in the US around affirmative action and so on that, as far as I understand it, than we are able to deploy here [in the UK]. And so, I think the whiteness of the academy remains, in the UK, a huge, huge issue. Without a doubt, there's a very long way to go before the academy is as diverse as it should be.

FM

Thank you very much, Gillian.

GR

Thank you again for the invitation and for the challenging questions.

Ecaterina Stefanescu

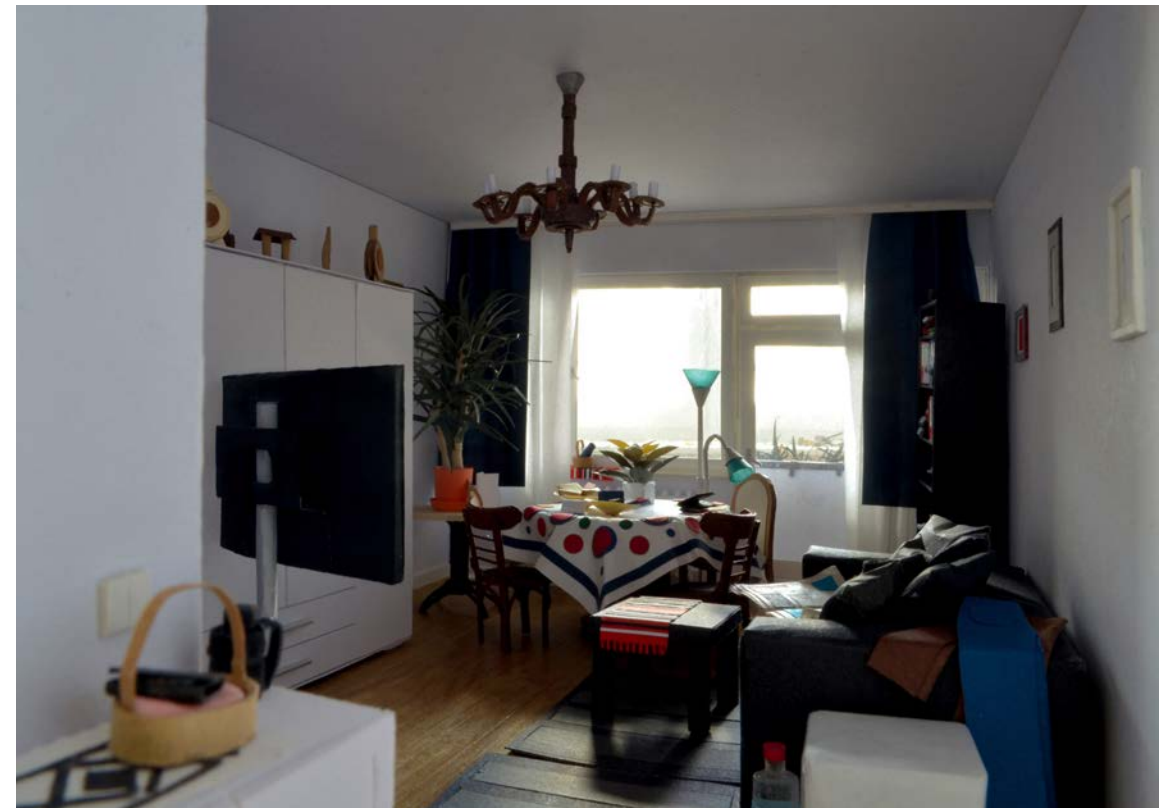
Rooms: Modelling the Quotidian and Revealing the Enchanted of Berlin's Immigrant Spaces

Introduction

Scale models play roles of proposition, speculation, and fiction within architecture. This paper situates the model as a means of observation, documentation, and engagement with migrant communities. It investigates how studying the material culture of migrants through the medium of Ethnographic Model-Making showcases and validates the migrant's liminal condition. The paper will outline how this methodology encourages access and participation from the point of view of participants, the maker, and the public.

Figure 1.

1:20 interior model of the flat of a Romanian pensioner, "Rooms", Berlin. Ecaterina Stefanescu, 2021-2022. Photo: Ecaterina Stefanescu



Opposite:

Figure 2.

Site sketch of Romanian shop, "Rooms", Berlin. Ecaterina Stefanescu, 2021-2022. Photo: Ecaterina Stefanescu

This research describes *Rooms*, an artistic project examining the Romanian migrant community inhabiting the city of Berlin through the spaces they occupy and the objects with which they surround themselves.¹ The case studies – a Romanian shop and two domestic spaces (figure 1) – were documented, drawn, surveyed, and then carefully recreated through 1:20 paper models.

For migrant communities, the nostalgic association with native objects and places helps to build identity. Modelling the everyday spaces of migrants not only visualises and offers new insight, but also gives a sense of value and recognition to the lived realities of individuals and communities often ignored and marginalised. The project reveals everyday spaces that migrants appropriate as objects of beauty and atmosphere by the dedication to this form of three-dimensional representation.

Migrancy

Researching the experience of diasporic communities through literature, Andreea Deciu Ritivoi writes about the conundrum that immigrants face when arriving in a new country. They are forced to change their way of being to adapt and integrate into a host society and culture, but this adjustment is often experienced as a kind of 'loss'.² According to Ritivoi, feelings of nostalgia are a marker of the journey for the migrant, and 'a defensive mechanism designed to maintain a stable identity' in the face of this inevitable loss.³

Material objects emerge as symbols of stability for migrants, when personal uncertainty occurs as their surroundings change or move.⁴ The domestic spaces occupied by an individual are identified by sociologist Maurice Halbachs as bearing the inhabitant's imprint, through furniture, decorations, and objects.⁵

Ritivoi further describes that an individual's identity is dependent on their environment, so migrants seek to recreate their habitat in the image of their place of origin – but more than that, in the image of their inner self.⁶

¹ This project and research have been undertaken as part of the Urban Nation Museum for Urban Contemporary Art –*Fresh A.I.R.* – artistic residency in Berlin between October 2021 and March 2022. The residency, titled *Reflecting Migration*, was intended to replace common stereotypical portrayals of migrants.

² Andreea Deciu Ritivoi, *Yesterday's Self: Nostalgia and the Immigrant Identity* (Oxford: Rowman and Littlefield, 2002), p. 1.

³ Ritivoi, p. 9.

⁴ Maurice Halbwachs, *The Collective Memory*, trans. by Francis J. Ditter, Jr. and Vida Yazdi Ditter (New York: Harper & Row, 1980), p. 129.

⁵ Halbachs, p. 128.

⁶ Ritivoi, p. 8.



By re-establishing the world of home in their new surroundings – through objects of nostalgia, buying produce imported from their country of origin and preparing traditional food – they attempt to halt the inevitable change and loss, and as a form of nostalgic enchantment, transform their new surroundings into the places from their past for which they long.

The models of the domestic spaces created for *Rooms*, therefore, are not only physical representations of the spaces and objects within, but also of the complicated, liminal identities of their inhabitants. The focus on recreating the mundane minutiae in the rooms – socks, a stack of papers, homeware, sweets – validates and renders this liminal condition tangible.

Ethnographic research

To study and document these everyday spaces and observe the rituals associated with them, the project applied an ethnographic research approach, including situated actions of visiting Romanian commercial places, meeting and conversing the people there, and participating in the acts of consumption.

To allow one to register not only the physical material environment but also the behaviour within that environment, architect Lee Ivett advocates for a performative act of making, which situates the artist/researcher as a

participant.⁷ A similar method that utilises a public process of making was a key part in *Rooms*. Although the act of making was a one-side activity, it allowed me to occupy and embed myself in the spaces further.

I used site sketching, drawing and spatial surveying as durational methods through which I not only observed and documented the spaces in two dimensions, but which were also the catalyst for further conversations and informal interviews with project participants: a young woman working in the Romanian shop, and a pensioner frequenting it to socialise with other Romanians (figure 2). Over a period of a few months, their interest in the project grew, allowing me to gain trust and access, into their spaces and into their lived realities.⁸ (figure 3)

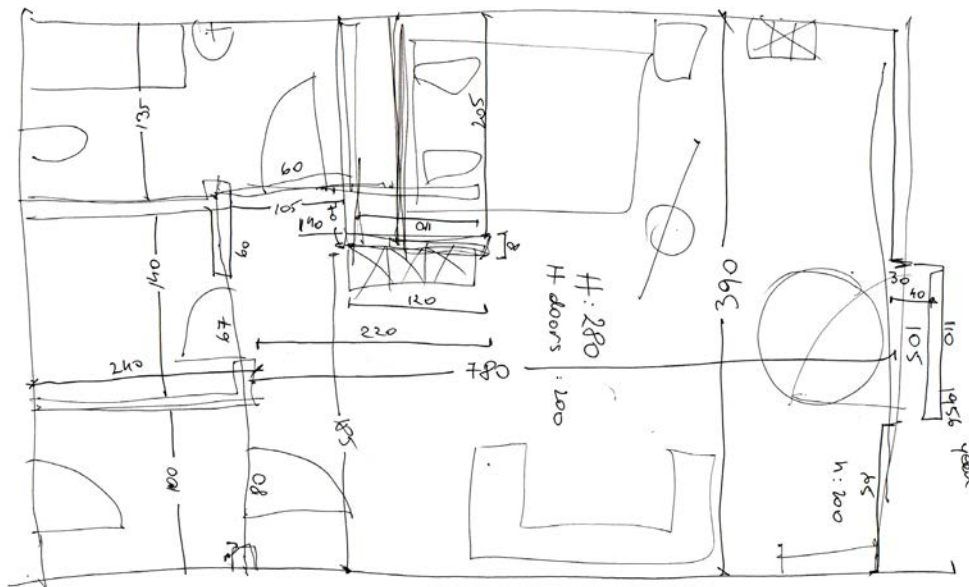
Models

The reproduction of the spaces was another form of analysis: through physically re-making the domestic interiors, I was forced to re-inhabit the spaces studied, and embed myself in the lives of the people whose spaces I was depicting (figure 4). By manually constructing the interiors and all the items within, the level of insight amassed about the rooms and their inhabitants could not be replicated by simply observing or documenting the spaces in two dimensions.

The haptic and participatory benefit of models, together with their didactic potential, has been utilised in the on-going artistic and research project *The Giant Doll's House* run by Catja de Haas Architects. Started in 2014, the social arts project asked participants to create models of their past, present or imaginary homes within the confines of a shoebox. The international project involved people from different backgrounds, including schoolchildren, community members and refugees, aiming to raise awareness about the importance of home and utilising the act of making to explore 'ideas of identity, both shared as well as personal'.⁹

Figure 3.

Site survey of the flat of a Romanian pensioner, "Rooms", Berlin. Ecaterina Stefanescu, 2021-2022. Photo: Ecaterina Stefanescu



⁷ Architect Lee Ivett, through his work with(in) marginalised communities in Glasgow, has designed and led on projects which focus on the act of making as a participatory activity that has the potential to gather meaningful data and impact directly on a place. *I am from Reykjavik* is an artistic project by Sonia Hughes for which Ivett co-designed the structure and the artistic act, which tests the methodology of making as performance in a public space. See Lee Ivett, *The Act of Making as Participation and Enquiry* (2021), *I am from Reykjavik* <<https://www.iamfromreykjavik.com/portfolio-item/the-act-of-making/>> [accessed 16 October 2022].

⁸ Both participants were forthcoming and interested in the research, allowing me to gain access. No names or addresses were to be used within the academic dissemination of the project, and a verbal agreement was made to document their spaces and some of their personal objects.

⁹ *About the Giant Dolls' House Project* (n.d.), *The Giant Dolls' House Project* <<https://giantdollshouse.org/about>> [accessed 8 January 2023].



Figure 4.

Making of one of the domestic interior models, "Rooms", Berlin. Ecaterina Stefanescu, 2021-2022. Photo: Sam Eadington



Figure 5.

1:20 interior model of the flat of a Romanian shop assistant, "Rooms", Berlin. Ecaterina Stefanescu, 2021-2022. Photo: Ecaterina Stefanescu

The project quotes Gaston Bachelard, who talks about the condensing of value within miniatures. He suggests that the scaled-down version of the object is richer and more packed with insight than the real object.¹⁰ But more so than this, the miniature increases the importance and value of the object being depicted, revealing it as a 'refuge of greatness'.¹¹

Rooms similarly uses the act of making to explore ideas of identity. Moreover, the care and attention employed in the making of the miniatures for *Rooms* implies an engagement that goes beyond the ordinary, therefore emphasising their importance. Through the extreme level of detail, external observers and the public were encouraged to occupy and embed themselves in what Sarah Pink terms 'the ethnographic place' of the model, forcing an empathetic response that simply visiting the actual, quotidian spaces would not provoke.¹² This form of representation reveals the simple, ordinary spaces as objects of beauty and enchantment (figure 5).¹³

Conclusion

Experiencing a sense of loss through the change in their surroundings, migrants seek to replicate the nostalgic past through everyday objects and spaces that speak not only of their place of origin, but also of their identity. The culture of origin, representing the longed-for, enchanted realm of their nostalgic past, is projected onto the quotidian of the host culture through material possessions. But in a foreign context, this produces a liminal identity when the culture of origin, recalled through nostalgic associations with objects and physical artefacts, is juxtaposed onto new surroundings. The models of the domestic spaces are not only a representation of the places themselves, but also of the liminal identity of migrants. The focus on everyday objects and the mundane aspects of their lived realities validates and renders their condition tangible, revealing the interiors as the enchanted recreations that the inhabitants desire them to be. The models become objects of atmosphere and beauty, which recognise, acknowledge, and bring value to the feelings experienced by the community and their lived reality within this transitory condition.

¹⁰ Gaston Bachelard, *The Poetics of Space*, trans. by Maria Jolas (Boston: Beacon Press, 1994), 150

¹¹ Bachelard, p. 155.

¹² Sarah Pink, *Doing Sensory Ethnography*, (Los Angeles: SAGE Publishing, 2009), p. 42.

¹³ The work was exhibited as part of the "Reflecting Migration" group exhibition in the gallery space Bülow90 in Berlin between March and July 2022.

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Biography

Ecaterina Stefanescu is an architectural designer, artist and academic based in Preston, where she teaches architecture at the Grenfell-Baines Institute of Architecture within the University of Central Lancashire. Her practice Estudio ESSE, co-founded in 2015, creates site installations and bespoke design work. Ecaterina uses live-build, model-making and drawing in her artistic and research work to respond to the place and material cultures of people. Her research interests include the act of making as a tool for exploration, investigation and participation, model-making and the material culture of migrants.

Acknowledgements

I want to thank collaborators Sam Eadington and Lee Ivett for their advice and continued support for this project and research, as well as the students and technical staff from the Grenfell-Baines Institute of Architecture for their practical help during the making of *Rooms*.

Leo Xian

Diary of a Madman: Scripting Outcry, Hesitation, and Cannibalism

Introduction

This visual essay presents my design research focusing on Lu Xun, the pen name by which the prominent Chinese literary figure Zhou Shuren (1881-1936) is known. *Diary of a Madman* (1918), the first short story written in vernacular modern Chinese, together with the *Preface to Outcry and Hesitation* (1922), act as a critique of a profoundly traumatic age of crisis. The period, between his birth in 1881 to his adult years, was marked by the turbulent last decade of the crumbling Qing empire (1636-1912). The empire went through successive defeats by foreign colonial powers since the First Opium War (1839-1842) and was forced to sign a series of unequal treaties with the victors. Internally, this last imperial dynasty was confronted with unprecedented uprisings such as the Taiping (1851-1864)

Figure 1.

LiDAR scan survey of my room, Leo Xian, 2020. Digital model created by the author.

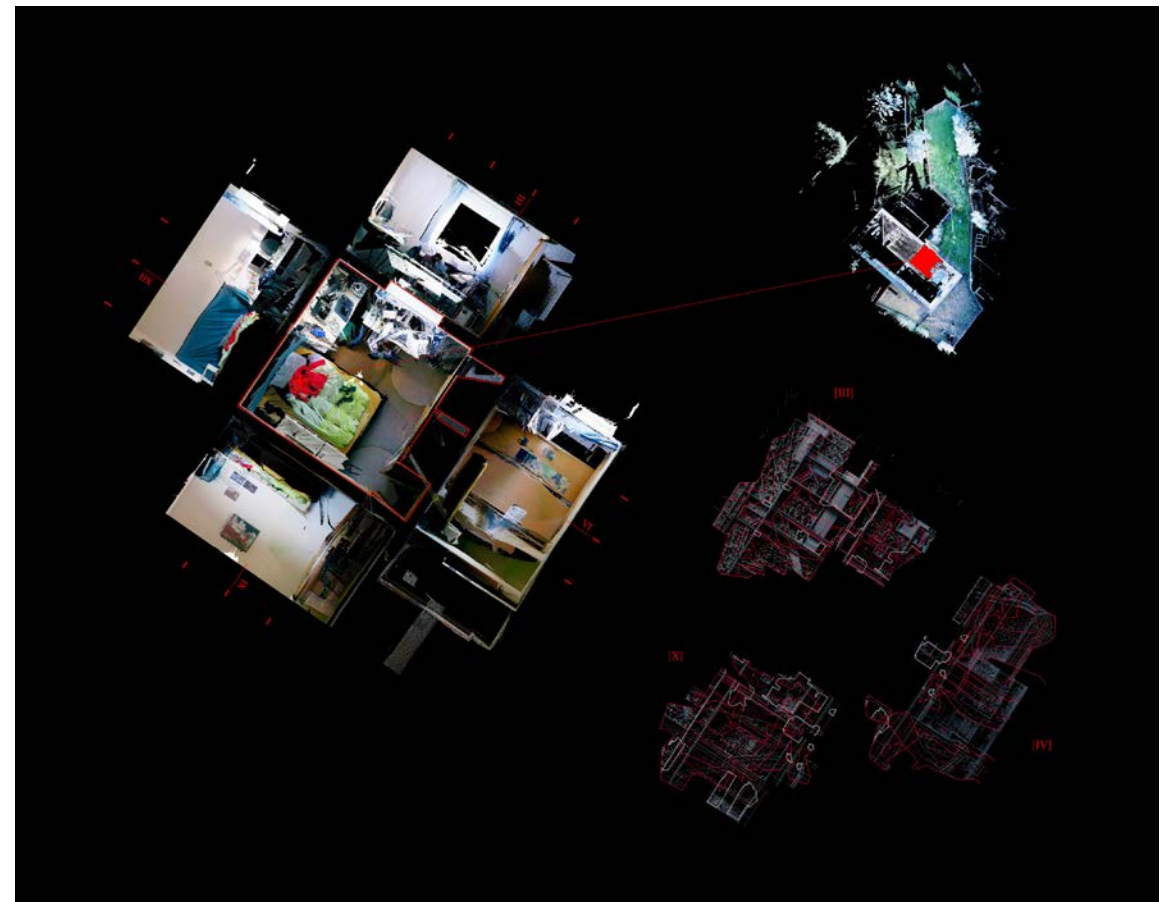


Figure 2.

Diary of a Madman: Dining Table_Fragment iii, Leo Xian, 2020. Digital model created by the author.

and the Boxer (1899-1901) rebellions. The Siege of International Legations (1900), and the subsequent signing of the Boxer Protocol (1901), turned the country into a semi-colonial and semi-feudal society. The institution of a new Republican government (1912) did little to save the country from disintegrating into warlordism.¹ Lu Xun's literary experiment, both in content and in form, represents China's traumatic process of cultural disintegration and its tempestuous encounter with the larger world.² Despite Lu Xun's obsession with darkness, death, and failure, he has been lauded by the Chinese Communist Party as a symbol of light and a revolutionary hero of the New Culture Movement (1915).³ What is often omitted however, is Lu Xun's identity as a writer who explores a 'consciousness of darkness'.⁴

Key to his literary technique is 'detour', which, according to the sinologist Francois Jullien, is a strategy of meaning-making in Chinese poetry through the use of allusive expression.⁵ This essay considers the mood of darkness as an embodying topos of Lu Xun's literary works, and explores the under-researched architectural and bodily allegories of *Diary of a Madman* and the *Preface to Outcry and Hesitation*.

1 Eileen Cheng, *Literary Remains: Death, Trauma, and Lu Xun's Refusal to Mourn*, (University of Hawaii Press, 2013), p. 4.

2 Ibid.

3 Ibid. p. 3.

4 Ying Lei, 'Lu Xun, the Critical Buddhist: A Monstrous Ekayāna', *Journal of Chinese Literature and Culture*, 3 (2016).

5 Francois Jullien, *Detour and Access: Strategy of Meaning in China and Greece*, (New York: Zone Books, 2004), p. 275.

Preface: Iron House

The *Preface to Outcry and Hesitation* describes an autobiographical journey set within a dreamscape. Lu Xun's 'consciousness of darkness' is echoed throughout the episodes of dreams. In these dreams, the spectacles of the distorted body emerge from the spaces in his memories. With the *Preface*, the dreamer journeys into an allegorical iron house with endless rooms of grim spectacles: his father's sick body gradually consumed by herbal medicine; the decapitated body of his compatriot in a lantern slideshow; the abortive body of the stillborn journal; and the spectral of a hanged female body in the courtyard of a hostel.⁶ After the fleeting deliverance through the oneiric layers from one spectacle to the next, the dreamer is suddenly awakened to find himself trapped within the 'absolutely indestructible' walls of the iron house and soon suffocated to death.⁷ It is the multilayering and saturated architectural experience of dreams, memories, and spectacles evoked by the iron house that this design research project explores.

Diary of a Madman

Mirroring the *Preface* writer's journey, the *Diary of a Madman* records the writer's moonlight journey through a traumascapes. This journey is documented through thirteen undated and disjointed diary entries. The entries are woven through the entangling narrative threads of the body: the eye, the mouth, and the hand. Reversing the spectatorship in the *Preface*, where the dreamer is the subject of the gaze, in the *Diary*, the madman is the object of the gazes: the ghastly gaze of the dog; the suspicious gaze of the children; the hateful gaze of the woman; the staring eyes of the tenant; the murderous gleam of his brother...⁸ The unsettling aspect of the gaze is accentuated further in the dining table scene (entry iv), where the 'white and hard' eyes of the fish on the dining table with its open mouth subvert the scene of communion into one of cannibalism.⁹

6 Lu Xun, *Selected Stories by Lu Hsun*, (New York: W.W.Norton & Company, 2003), pp. 7-12.

7 Ibid. p. 10.

8 Ibid. pp. 7-12.

9 Ibid. pp. 1-6.





Figure 3.

Diary of a Madman: Dining Table_Fragment iv, Leo Xian, 2020. Digital model created by the author.

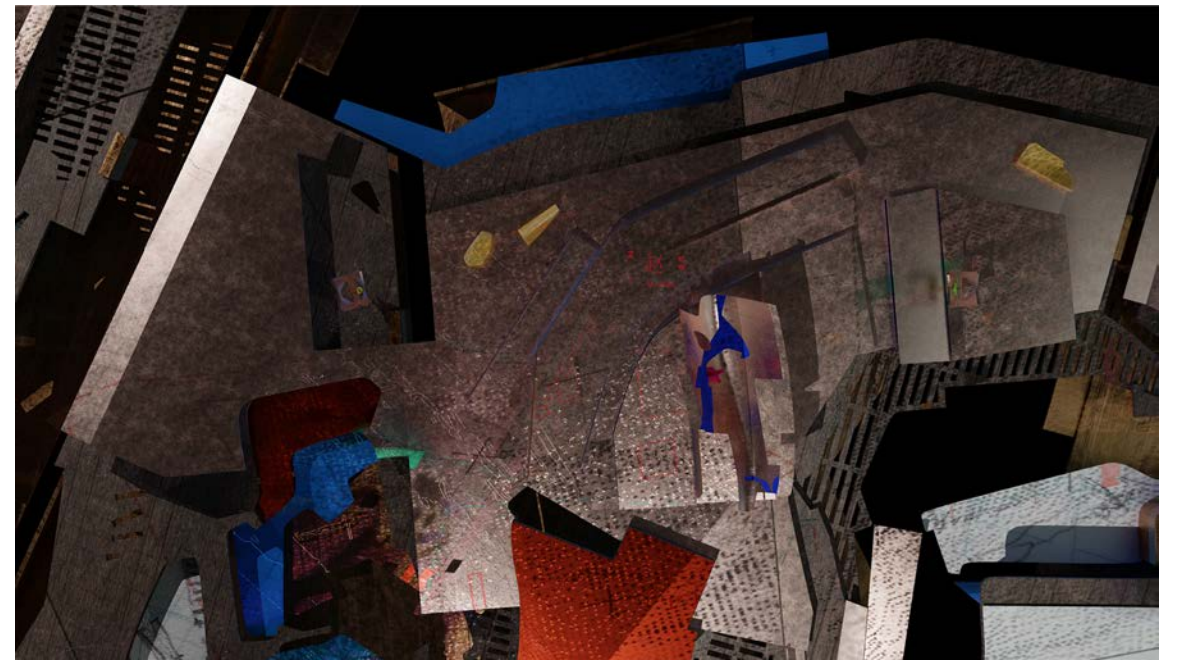


Figure 4.

Diary of a Madman: Dining Table_Fragment x, Leo Xian, 2020. Digital model created by the author.

Design Research Project: Diary of a Madman

A visual thinker, Lu Xun is described by the sinologist William A. Lyell as 'an architect of stories and a carpenter of words'.¹⁰ Following Lu Xun's architectural sensibility, this design research project, *Diary of a Madman*, takes inspiration from the dining table scene and imagines the thirteen diary entries being staged across a fragmented dining table. In the *Diary*, the entries are linked by the narrative threads of the eye, the mouth, and the hand as they unfold across the table. In this design interpretation, three table fragments are constructed to represent diary entries iii, iv, and x as the topoi of the aberrant, the strange and the infectious and in so doing construct the traumascapes of the madman. The focus of designing these table fragments is to enact, in the process of translation, the entanglement between outer space and inner emotion.

When constructing the *Diary*, Lu Xun no doubt invokes the allegory of the dining table as an element traceable to the mythical figure of the Red Emperor (Yandi) who is credited as having invented the stove for cooking.¹¹ In ancient Chinese literature, the dining table is referred to most pervasively as an allegorical construct to illustrate political and philosophical discourse. The proper treatments of food are commonly used to describe methods of governing.¹² In *Laozi*, it is written that 'governing a large state is like cooking a small fish' to imply the need for delicate handling.¹³ The early Han political philosopher Jia Yi illustrates the methods of governing according to the butcher Tan's toolset of the blades, hatches, and axes suggesting the 'brutal force of *Realpolitik*'.¹⁴ In this exploration, as if performing the ritual of dining, each diary entry is translated into three Acts: scanning, burning and constructing.

Act I: Scanning

In the essay *On Photography* (1924), Lu Xun recalls his memory of growing up hearing grotesque stories relating to eyes: stories such as one about a maid worked at a foreigner's house and saw a vat containing layer upon layer of pickled eyes gauged from local villagers.¹⁵ The memories resurface as the haunting gazes in the *Diary*. Within the design explorations, the first Act interprets the eye through the surveyor's lens of the LiDAR scanner. Reflecting

10 William A Lyell, *Lu Hsun's Vision of Reality*, (California: University of California Press, 1976), p. 263.

11 Gang Yue, *The Mouth That Begs: Hunger, Cannibalism, and the Politics of Eating in Modern China*, (Duke University Press, 1999), p. 32.

12 David R. Knechtges, 'A Literary Feast: Food in Early Chinese Literature', (1986), 51.

13 Ibid. p. 52.

14 Ibid.

15 Yue, pp. 74-78.

the *Diary*'s autobiographical nature, the design project is based on the 3D scan model of my room (figure 1). In ancient China, the mirror (*jian*) carries a double meaning of the eye that 'looks into' and the mind's eye that 'reflects' through the light of history.¹⁶ Within this design, the shadow gaps and aberrant moments of the 3D scan are extracted and interpreted as a set of mirrors positioned on the table fragments. Each mirror captures a character's gaze to evoke a disfigured glimpse of the madman's traumascapes in the act of becoming.¹⁷ Negotiating between observation and imagination, table fragment iii (figure 2) is engendered by the bewilderment of the madman subjected to the staring eyes.¹⁸

Act II: Burning

In the memoir *Ah Chang and the Classic of Mountains and Seas* (1926), Lu Xun's old nurse told a story about the Taiping Rebellion's invasion of his hometown. His family's female cook was driven mad after seeing their gatekeeper's head being jokingly tossed to her as food to eat.¹⁹ In his surrealist story *Dead Fire* (1925) the mouth is imagined in a dream as a remnant flame that has just fled a burning house and is trapped within a valley of ice, as soon as it is awakened

16 Eugene Yuejin Wang, 'Mirror, Death, and Rhetoric: Reading Later Han Chinese Bronze Artifacts', *The Art Bulletin*, 76 (1994), 511.

17 Jullien, p. 359.

18 Xun, pp. 9-10.

19 Lu Xun, *Dawn Blossoms Plucked at Dusk*, (Foreign Language Press, 1976), p. 17.

Figure 5.

City of Cannibalism,
Leo Xian, 2021.
Digital drawing
created by
the author.



by the dreamer, it turns into a huge stone cart rushing out like a tongue and crushing him to death.²⁰ The second Act interprets the mouth theme through the consumption fire (figure 1). The act of 'poetic incitement', according to Jullien, interacts between landscape and emotion to create an indeterminacy of exchange.²¹ Here, the haunting mouth is captured through the burnt ashes of the 3D scan as traces of erasure, and table fragment iv (figure 3) echoes the madman's sense of sickness when eating the slippery morsels of the fish.²²

Act III: Constructing

Lu Xun revived the ancient art of woodblock printing, against the backdrop of the looming Second Sino-Japanese War (1937-1945), as a weapon of national resistance.²³ Tracing the burnt ashes and mirroring Xun's use of woodblock printing, in the third Act, the table fragments are constructed with pear-tree woodblocks that are engraved as scripted surfaces. Table fragment x (figure 4) registers the gesture of a consumptive soaking a piece of bread in the blood on an execution ground as witnessed by the madman.²⁴

Conclusion: The City of Cannibalism

The thirteen table fragments represent an imaginary ground embedded in the twilight mood and the spectral energy through which Lu Xun's 'consciousness of darkness' unfolds into spatial and architectural visions. Etymologically the Chinese character for madness (*kuang*) is understood as 'the archetypal metaphor for an explosive ecstasy (ex-stasis), a jumping off the right track, a transgressive crossing of the boundary'.²⁵ Today, more than a century after the *Diary* was published, Lu Xun's detour through the outcry of the madman is still charged with an explosive potential of architectural meaning-making in a crisis-ridden world. Blending the traces of traumatic events with the illusive imagery of the dreamscape, the table fragments are initial gestures towards *The City of Cannibalism* (figure 5). It is a call to imagine an allegorical city as a process of critical reflection through Lu Xun's nocturnal visions of the broken bodies, the fleeting shadows, and the enchanted ashes.

20 Lu Xun, *Wild Grass*, (Peking: Foreign Language Press, 1974), p. 37.

21 Jullien, p. 152.

22 Xun, pp. 10-11.

23 Xiaobing Tang, *Origins of the Chinese Avant-Garde: The Modern Woodcut Movement*, (University of California Press 2007), pp. 1-7.

24 Xun, pp. 15-17.

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Biography

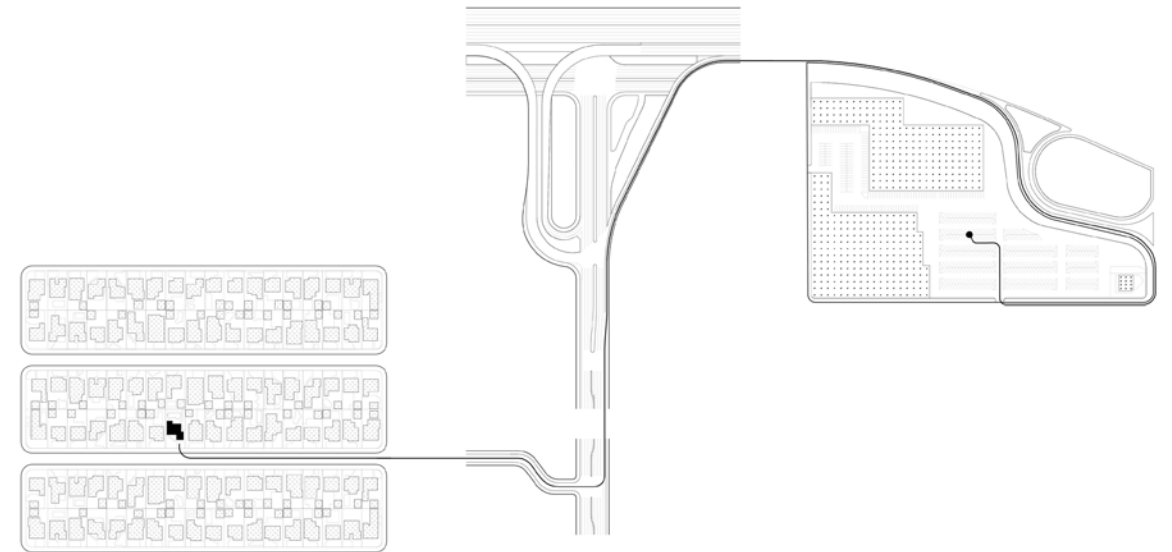
Leo Xian holds an MArch (Distinction) from the University of Edinburgh and is currently a PhD candidate in Architecture by Design from the same institution. Having previously worked for practices including Steven Holl Architects, he now teaches MSc Architecture and Urban Design as a studio tutor and is a member of the editorial team of the architectural design research journal *Drawing_On*. His design research projects have been exhibited internationally including at the Royal Scottish Academy, the Cooper Union, the Mana Contemporary, and the Italian Pavilion, 17th Venice Biennale. In 2022, his collective research project *Para-situation [Edinburgh] - the Waverley Garden* was published in *Conceiving the Plan: Nuance and Intimacy in Civic Space* by Skira Publisher.

Joshua Guinness

HYPERTHOME: Re-Sequencing Los Angeles

Los Angeles is a city built on the Suburban Ideal. L.A., from its very beginnings as a collection of self-sufficient ranchos to its twentieth-century growth into a megacity, has consisted of individual units of reproduction. A *polis* made up of *oikos*. Both as a mass-produced spatial product and a cultural ideal, the private sphere of the nuclear family forms the city's genetic material. The spaces of the single-family home carry implicit values and reproduce certain expectations for everyday life, from fixed gender roles, to determined functional spaces, and separation between nuclear family units. In its side-by-side repetition, the home necessitates a chain of interlocking relays that structure time by means of the routes between them. The rigid suburban arrangement is predicated on a division between public and private that suppresses collision and difference.

Figure 1.
(Sub-)Urban
Sequence



This article critically reimagines the quotidian spaces of suburbia; the strikingly homogeneous face of Los Angeles's city structure is viewed through the lens of Keller Easterling's notion of *disposition*. Easterling considers space an informational matrix in which generic spatial 'products', like the free-trade zone, multiply into globally reproduced realities. This reading of contemporary urbanization allows us to discover effective levers through which to tackle the discontents of suburbia. In examining the generic nature of Los Angeles, thinking of architecture as the design of singular, stimulating spaces won't get you very far. Contra the Euclidean conception of space as a container — and architectural Modernism's fixation on form — a *disposition*-based view allows for a reconsideration of LA's city structure as a whole.

The Private Sphere as Urban DNA

In Los Angeles, the single-family home, a generic building block, forms the urban structure through multiplication. More than just a house, it reproduces a certain way of life founded on the concept of the nuclear family. L.A.'s vast urbanised territory is based on domesticity. Its homogeneous face is the outcome of the endless repetition of individual private units. Everything else follows from that. The grid of property lines, the zoning laws, the freeways, parking lots, and shopping malls. The model of the nuclear family produced a chain of interlocking devices. The House needs the Car, the Car needs the Highway, the Car again, needs the Garage, and so on.

While the 'public realm' consists entirely in the externalities of the private, the interior is a closed-off sphere. This inward-facing quality is what made the dense succession of mass-produced houses possible. Ready-made life. More of the same. Everyday rhythms emanate from the house, unfolding along straight paths from one determined activity to the next. No ambiguity, no in-between. The division between public and private is the basis for the stable equilibrium of the suburban landscape. The public street is separated from the intimate backyard by the private interior of the house. The row of houses and front lawns marks a social boundary, a limit beyond which lived experience cannot go. Collision and Difference are suppressed by the urban structure itself.

Repressed Desires, Latent Potentials

The highly typified, gendered spaces of the home function as organs with clearly determined functions within the system of the single-family house. When unleashed, the desires and latent potentials that are repressed by this stable system introduce breaks within the regimented rhythms of domestic life. These slippages hint at a 'de-organized' state where an 'organized' one had been assumed. New, previously hidden qualities emerge. The rigid functionality of the typical spaces is abandoned — what is left are specific performative qualities. The 'subconscious' side of the home's normalized spaces bears the potential for transcending the ordinary.

Protocols of Entanglement

Breaks and shifts within the normative system of the nuclear family ideal translate into repeatable protocols; modifications to the code by which the urban tissue is multiplied introduce openings for variation that cascade into a vast field of possibilities. The resulting singularities form exceptions to the generalities produced by norms and laws. In challenging the single-family home, a series of immaterial protocols is envisioned in order to enable the entanglement of domestic units and the superposition of their strictly determined functional spaces. The norm, produced by the spatial information stored in both building regulation and suburban ideal, is challenged by tweaking the 'code' itself. The planned exceptions to the building code become the generator of variation, inserting indeterminacy into the urban fabric.

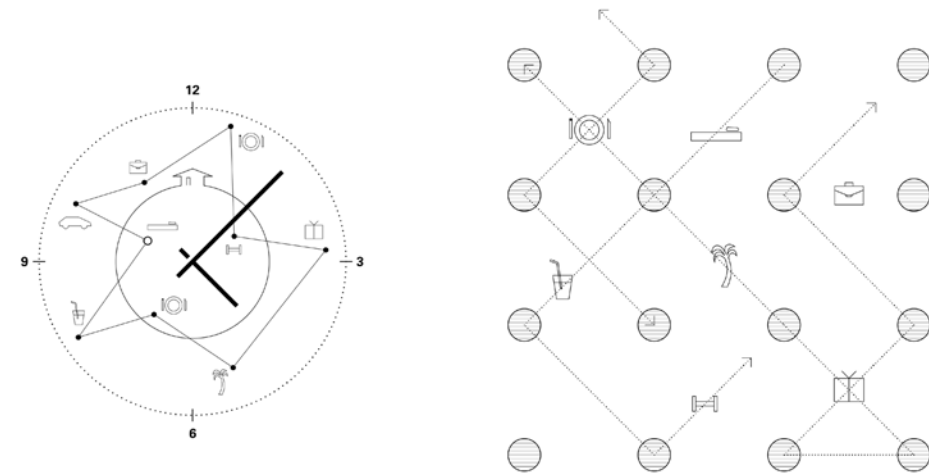


Figure 3.

Typical spaces

Opposite:

Figure 4.

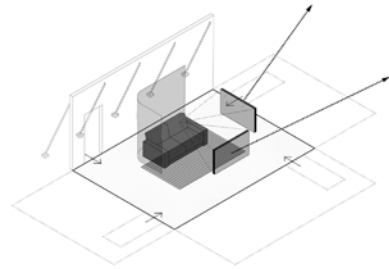
Mutations

Mutations

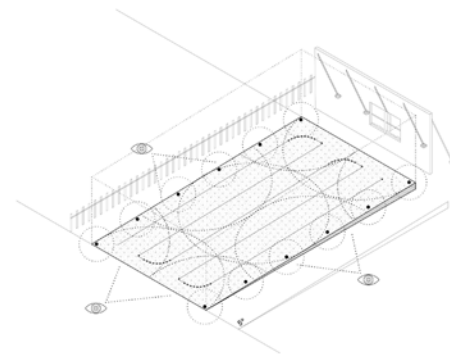
As the limits of the family began to dissolve, so did the walls surrounding it. The backyard wall, legally subject to negotiation between neighbouring properties, is the first physical border to fall. The indeterminate leftover spaces around houses begin to be exploited, as the lateral borders between properties collapse. The backyards melt into a continuous landscape of intimacies. The front lawn and street become a unified field, a vast open surface for the encounter of difference.

The garage evolves into a single roof that connects to the surrounding yards. Shared pools stretch across several properties. Both the back and front sides of the house slowly become public. The rigid division between public and private, back and front, is overcome.

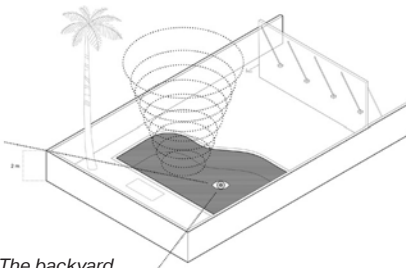
Lightweight steel framing is used as a modular system to construct common utilities. Reacting to the reordering of its surroundings, the house itself begins to evolve. New micro-typologies emerge: the porch, the veranda, the open ground floor. Performative furniture populates the city. The ephemeral wooden framing of the house is complemented by more durable steel. The more public, the more long-lasting.



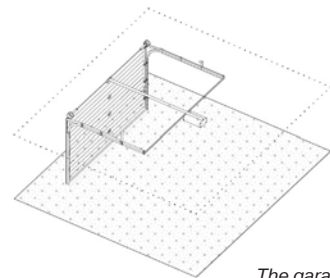
The living room



The front lawn



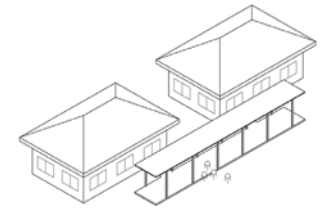
The backyard



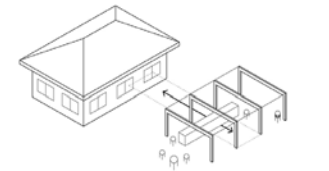
The garage

An Urban Score

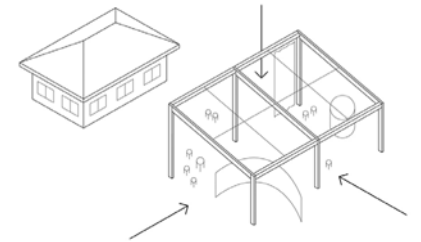
The urban score of Los Angeles is overwritten with a layer of utilities distributed according to their radius of accessibility, measured in walking distance by minutes. As a reaction to the atomization and fragmentation produced by the recursive movements of spatial flattening and temporal segmentation in the modern city, the project opts to transpose the domestic realm throughout the public sphere. Exploding the home into its components and distributing them across the city, the spatio-temporal sequence 'home-car-x-car-home', which serves as the generic code of urban experience, is ultimately diffused. The city fabric is inverted — counteracting the unequal distribution of amenities and private wealth in Los Angeles, the public realm begins to offer a network of dispersed domestic functions, while the formerly secluded house interior becomes a space of activity and encounter freed from the constraints of functionality. While the domestic sphere is exteriorised, the interior emerges as the site for new forms of diversified publicness — endless particular publics instead of one general, abstract public space.



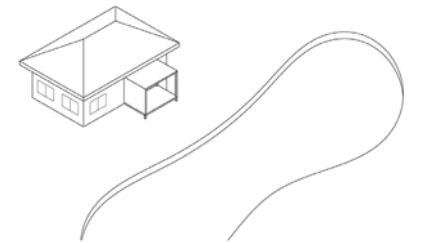
Veranda



Kitchen



Garage



Pool



Open ground floor

Biography

Joshua Guinness is a partner at the Architecture Land Initiative, a cooperative based in Zurich and Geneva working on trans-scalar projects in architecture and urban transformation. He is the founder of E-FX, a platform investigating spatial strategy as a means to shape culture, society, and politics. Joshua is a teaching and research assistant at VOLUPTAS, ETH Zurich.

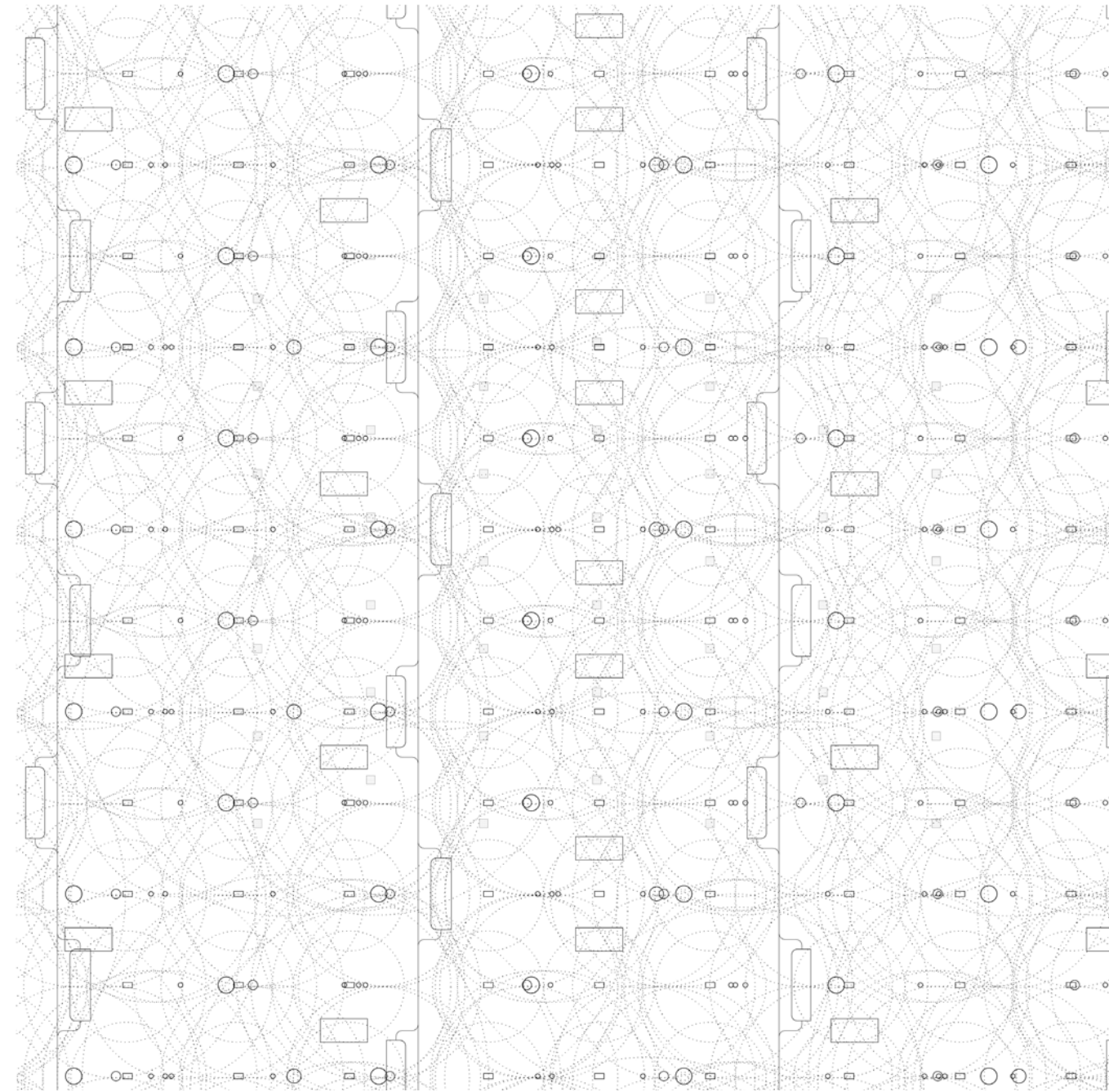


Figure 5.
Urban score

François Penz

CUT/ZOOM/
PAN...PAINT!

*'Ne plus décrire la vie des gens, mais
seulement la vie, la vie toute seule,
ce qu'il y a entre les gens... L'espace,
le son et les couleurs.'*

Belmondo in *Pierrot le Fou* (Godard 1965)

Figure 1.

Anna Karina in
Pierrot le Fou
(Godard 1965)



Figure 2.

Godard listening
to Ravel's *Boléro*

In 2018 I was fortunate to visit the Godard–Picasso exhibition in Arles. It revealed a multitude of connections between the two artists, especially in their common practice of using collage. As a filmmaker Jean-Luc Godard (1930–2022) was long considered *l'enfant terrible* of the French New Wave and his engagement with painting is perhaps best illustrated in *Pierrot le Fou* (1965). At the time, the surrealist French poet Louis Aragon (1897–1982) remarked that Picasso's palette of colours, yellow, red and blue, had slid from his easel into Godard's film¹. Later in his *Histoire(s) du cinéma* (1998), Godard declares that cinema began with Edouard Manet. But in *Lettre à Freddy Buache* (Godard 1982)², Godard takes the idea of 'ciné-peinture' to a whole new level. This short ten-minute film was commissioned by the city of Lausanne to commemorate the five-hundredth anniversary of the city. Freddy Buache, one of the founders of the Swiss Cinémathèque, was

¹ Dominique Païni, *Godard–Picasso: Collage(s)* (Paris: Art cinema, 2018), p. 4.

² <https://vimeo.com/11523072>



instrumental in getting Godard involved in this short film. The idea was to create a film that would depart from the traditional promotional city video. Buache was keen to commission a film that would have pride of place in any Cinémathèque – and in effect two films were commissioned, the other one by Yves Yersin, a Lausanne-based filmmaker, a longer film. Godard, who was a French-Swiss citizen, knew Lausanne well and had recently settled back in the nearby town of Rolle in 1977.

On the face of it, the commission was a failure. Godard, who never shied away from controversy, stated from the outset (with his own voice in the film's voice-over), that 'they will be furious to have given money for a film that hasn't materialised'. And indeed, the city of Lausanne was unhappy – a case of self-fulfilling prophecy. Despite the controversy, the film was shown in Cannes in 1982 where it was critically acclaimed and made the front pages of *Le Monde* and *France-Soir*³. Lausanne got its money's worth of publicity after all, and the controversy subsided. In 1985, Deleuze devoted a short and yet sympathetic paragraph to the film in *L'image-Temps*⁴: '*Lettre à Freddy Buache* reveals the chromatic process in its purest state: there is the high and the low, the blue, celestial Lausanne, and the green, earthly and aquatic Lausanne [...] It is indeed a form of constructivism: he reconstructed Lausanne with colours, the discourse of Lausanne, its indirect vision'.

Through this work Godard proposes a novel exercise; it is a film about filmmaking, or rather a film about non-filmmaking and the difficulty of making a film about a city. He even accuses the city of Lausanne of dishonesty for having commissioned such a film, claiming that it would take five light years to do it justice – something that might be reflected in his choice of music, Ravel's *Boléro*, a somewhat unresolved piece of music.

Godard, the *auteur par excellence*, is not only the voice in the film, he is also the staging – serving both as the subject and framework through which an examination of the process of filming and how to depict Lausanne unfolds. Within the film, Godard is essentially speculating and interrogating himself – and Freddy Buache in the form of a letter to him – on how best to depict Lausanne. It is a good example of an essay in the mould of Montaigne's literary essays⁵ – a way of engaging in a kind of informal, even disorderly,

³ Boris Senff, '1982: Godard: la lettre à Freddy', *24 Heures*, 13 November 2012 <<https://www.24heures.ch/1982-godard-la-lettre-a-freddy-693674912806>> [accessed 2 May 2023].

⁴ Gilles Deleuze, *Cinéma 2, L'image-temps*, Collection 'Critique', (Paris: Editions de Minuit, 1985), p. 243.

⁵ Timothy Corrigan, *The Essay Film: From Montaigne, After Marker* (New York: Oxford University Press, 2011).



A shot that... starts in the dark,



then there's light, then we see that it's green.

Figure 3.

Lausanne in three colours



Then a middle shot, square and made of stone.



At the bottom we'll find another color.



Forms and colors.

speculation. A spontaneous flow of subjective responses, conjectures and opinions, *Lettre à Freddy Buache* is a precious and rare example of a filmic essay about a city.

The voice-over text, read by Godard in his familiar, uninhibited Vaudois accent, gives him the opportunity to play with words and hesitations. Here he struggles to express with images what is more readily articulated in the text⁶, and the images become subordinate to the words. In the end, Godard narrows down the city of Lausanne to three colours; the green standing for the forest at the top of Lausanne, the blue of the Lac Léman at the bottom of the city, with the grey in between being the city itself. But the key to understanding the film resides in the passage when Godard's voice-over makes us aware that 'it's a very difficult exercise, that Bonnard managed it at the end of his life and Picasso at the beginning'. In other words, Godard is creating a painting – it is an attempt to paint with a camera, and to give a vision of a city, Lausanne, through three colours.

The seemingly uncoordinated camera movements reflect the painter's brush on the canvas – curved – the camera pans for the trees and the forest, and straight – the lines of the city. It is as if the film medium had become the easel and the camera the paint brush. A series of cuts and zooms in the final part of the film aim to focus on the people in an attempt to:

find the rhythm, to retrieve the beginning of the fiction, because the city is the fiction, the green, the sky, the forest, it's the poetic, the city is the fiction, the water is the poetic, the city is fiction, the fiction is a necessity and it might be why it is beautiful ... and those who live there are often beautiful and pathetic.⁷

⁶ Godard's voice-over: 'Alors, tu vois, j'avais pensé trois plans – c'est des plans très difficiles à faire' [You see, I thought of three shots – very difficult to execute].

⁷ My translation from Godard's voice-over, with the original punctuation: 'essayer de . de trouver dans tous ces mouvements de foule le . le rythme de . de retrouver le commencement de la fiction parce que . parce que la ville c'est la fiction . le vert, le ciel, la forêt c'est . c'est le roman, l'eau c'est le roman, la ville c'est la fiction . et c'est la nécessité de la . de la fiction . et elle peut être belle à cause de ça et ceux qui l'habitent sont . sont souvent magnifiques et pathétiques'.

Every shot is real and has its own integrity, in all its everyday-life details; the city as it is, with the people playing themselves. The poetic and the quotidian are reinterpreted through Godard's own brand of collage, inherited from Braque and Picasso, and cinematically augmented by a mix of voice-overs, quotes, music, and the image of Godard playing with a turntable or that of him arguing with a policeman. These collages become the movie itself – creating a novel type of 'collage city'.

As is often the case with Godard, there are unexpected depths and layers of meanings within his films as expressed by Aragon:

There are works of art that give me the impression that not only is there a street but also a long perspective, the countryside, a forest and further, the sea ... it's like that with Godard ... when I see something happening in a dusty corner of Paris, I know that there is the sea.⁸

Except, in this case, it is Lausanne and the Lac Léman.

Figure 4.
The people
playing
themselves

⁸ My translation from the French: 'Voyez-vous au cinéma ou au théâtre je me suis très souvent ennuyé car j'avais l'impression que ce qu'on me montrait, c'était toute la réalité que ... si on me montre une maison au coin d'une rue ce n'est pas besoin que j'aïlle derrière car je sais qu'il n'y a pas de rue ... mais il y a des œuvres qui me donne l'impression qu'il y a non seulement une rue mais une longue perspective, une ville, la campagne autour la forêt, plus loin la mer ... et c'est comme ça chez Godard quand je vois une chose qui se passe dans un quartier quelconque bien poussiéreux de Paris, je sais qu'il y a la mer ...' *Aragon Parle de Godard*, dir. by André S. Labarthe (1964) <<https://www.youtube.com/watch?v=9UJJOlptgL3I>> [accessed 2 May 2023].



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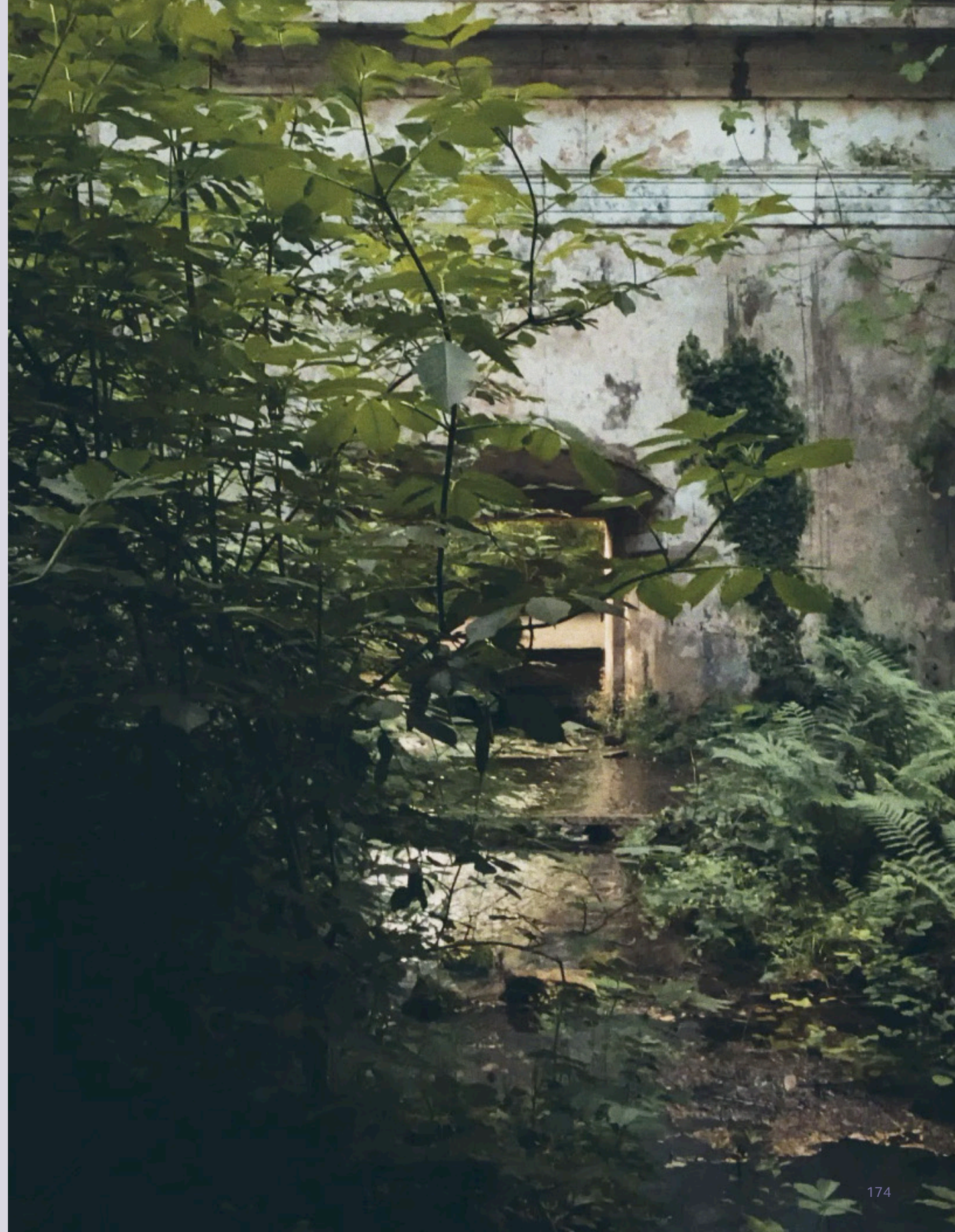
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Biography

François Penz is an Emeritus Professor of the Department of Architecture and a Fellow of Darwin College, University of Cambridge. His AHRC project 'A Cinematic *Musée Imaginaire* of Spatial Cultural Differences' (2017–2020) expanded to China and Japan many of the ideas developed in his monograph *Cinematic Aided Design: An Everyday Life Approach to Architecture* (Routledge, 2018). He recently co-edited *The Everyday in Visual Culture: Slices of Lives* (Routledge, 2022). As part of his practice-based research, he runs film and architecture workshops in Venice, at the Architecture Biennale (2021) and the European Cultural Academy (2022), as well as at the British School at Rome (2023).

Robert Gerard Pietrusko

Cadence San Vittorino



In 1983, Russian director Andrei Tarkovsky released his penultimate film, *Nostalghia*. The first movie he made outside of the Soviet Union, it was shot in numerous locations around Lazio and Tuscany over the previous several years. In it, Tarkovsky depicted central Italy's landscapes, public spaces, and ruins as sites to enact slow and individualistic rituals. Though these actions were quite separate from the sites' originally intended purposes, they seemed to easily accommodate these new and personal meanings. With *Nostalghia*, Tarkovsky demonstrated an articulation of film, architecture, ecology, and piety that humbled the film's protagonists and offered a model for a new secular theology — one that might be suited to our current conflictual relationship with the environment.

Perhaps the most indicative of these associations was a scene filmed at Chiesa San Vittorino, a ruined Baroque church whose enclosed nave contained a flowing river and sparse vegetation. Its symbolism was easy



for anyone to read — a site of religious devotion filled with the materials that most clearly indicate 'nature.' As such, Chiesa San Vittorino could have plausibly been imagined by Tarkovsky's production design team. It wasn't. Instead of emerging from any human subconsciousness, its surreal interior was the result of numerous natural and historical events. And its mere existence asserts the active poetics embedded in reality — both in its potent symbolic content and the hermeneutic impulse it inspires within us.

Long before Tarkovsky's film, the site at San Vittorino held mystical significance that was tied to the natural-material processes at work in the landscape. The broader region contains deposits of travertine covered by alluvial soils that are at risk of frequent and sudden sinkholes due to dynamic groundwater and karst erosion. In the pre-Christian era, Pagan sects held ritual gatherings on the grounds. They believed that the sinkholes were gateways to the spirit world and a place to worship water nymphs. In the early seventeenth century CE, this significance was both reinforced and erased by the Roman Catholic church, when it commissioned architect, Giovanni Battista Soria, to build a church on the site. In less than a hundred years, however, the church succumbed to the erosive processes that made the site significant in the first place; it fell into a sinkhole in 1703. The church's interior was flooded by water seeping from an active subsurface spring, which flowed, river-like, through the church's nave and out its front door. Over time, local vegetation also took root.

When I made a pilgrimage to the site in 2021, nearly forty years after Tarkovsky's visit, I was surprised by how different it was from his film. During the subsequent years, the ground had continued to shift. Parts of the ceiling had caved and allowed sun to fill the church's interior. For several hundred years, shade-loving vegetation, insects, and water species had formed a stable community inside the church. Now, within my short lifetime, a radical change had occurred. A new association of plants and trees was reaching a climax within the nave.

Despite retaining the outward appearance of a church, it was no longer a space for worshipping a transcendental God that stands outside of time and space. Nor was its sacredness tied to the Absolute or the Eternal. It held a different sacredness and a different temporality, one that emerged from the associations between water, soil, vegetation, and fauna that now existed within its walls. The church returned to a pagan timescale—seasonal, annual, and generational — through which to contemplate the sacredness of an immanent and dynamic nature.



Why interpret a ruined church in this fashion? And why attempt to extract a new theology from it? The contemporary moment has inspired many of us to reassess our relationship to the environment. As we all know, it can no longer perform as a consistent and passive context for human activity. Instead, at a moment when it already feels lost to us — or, at least transitioning into something uncertain — we hope to respond to it in a more profound way. Attempting, as we do, to let our new environmental sensitivity evolve us into something devout, appropriate, and tuned to the world as it changes, and changes us. But what practices, what spaces, and through which mediums does this sensitivity reveal the world to us anew? Or how might an ecological temporality make itself legible to us, while pushing against the boundaries of our human finitude. *San Vittorino*'s microcosmic ecology is a reminder that the answers to these questions have long been the motivation for religious parables and myths.



Cadence San Vittorino is an on-going audio-visual piece that attempts to grapple with these questions and work with the temporality now implied by the church and its miniature biome.

It is an ever-growing film that uses the repetition inherent in sacred pilgrimages as a compositional technique. It is recorded incrementally across numerous years, during bi-annual pilgrimages to the church. On each visit, the documented content is chosen solely by affect, focused on the vegetal and hydrological elements in the nave towards which one might feel the strongest compulsion. Much like the Catholic experience of the Absolute, the experience of 'Nature', one may now have, within the church is only a mediation. In this case, it is through the mediums of film and audio recording, rather than the written word, that the ecological gospel is experienced.

Only after a lifetime of repeated visits will the film capture what it intends: a religious narrative derived from the church's ecological temporality. From station to station, the current community of ferns, watercress, and ivy will grow, climax, and die in the face of a changing climate — only to be replaced by new and unexpected species. And as the film circulates far from the site of San Vittorino it takes on the form of a religious parable: a story to learn, retell, and interpret — an ecological exegesis.

Biography

Robert Gerard Pietrusko is an architect and composer based in Brooklyn, NY. His research focuses on the history and design potential of environmental media. His design work is part of the permanent collection of the Foundation Cartier pour l'art contemporain in Paris and has been exhibited in more than 15 countries at venues such as The Museum of Modern Art (MoMA), Palais de Tokyo, ZKM Center for Art & Media, and the Venice Architecture Biennale, among others. Recently, Pietrusko was awarded the 2021 Rome Prize for landscape architecture. Previous residencies include UPIC/CCMIX (2000), EMPAC (2011), and ZKM (2011). Pietrusko is currently an associate professor of landscape architecture at the University of Pennsylvania.

Heidi Svenningsen Kajita

'When They Feel They've Got a Beef': Building on Residents' Complaints in the Byker Archives

I write to you Mr Erskine in the hope that you will put the full might of your reputation on to builders. (Marshall Construction) and make them face up to their responsibilities, both to you as architect and to the people of Byker who are still in slum houses.

*I am,
Yours Faithfully
A. Downey
(A. Downey, Letter to architect, 1978, Byker, RIBA Collections)*

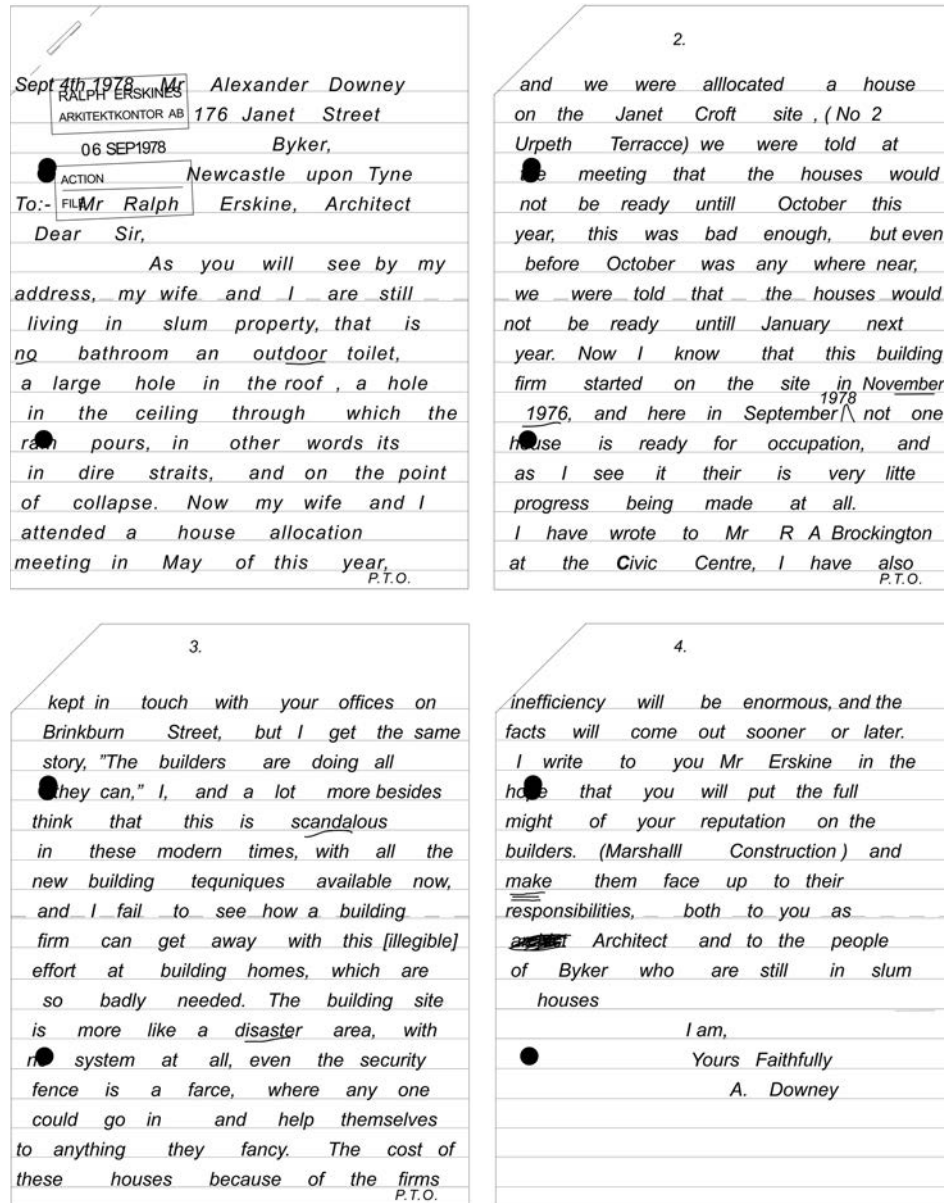
With these words, a resident of the housing estate Byker Wall in Newcastle upon Tyne, Alexander Downey, ends his letter of complaint in 1978 [Fig. 1]. Downey expresses his frustration with delays to the estate's redevelopment to the architects, Ralph Erskine Arkitekter AB (REA), who began their work at Byker in 1968. REA insisted that dialogues between residents, City Officers and themselves should be held on the housing estate. It was 'imperative,' they said, that everyone agree that these encounters 'must be informal, internal and a private concern for Byker dwellers and those directly involved in the project.'¹ The architects, therefore, established a site office on the estate where they invited residents to share concerns, wants and complaints about their housing. They experimented broadly with participatory design processes, and sometimes these involved paper-based communication, such as letters and lists of complaints, a diary to register visits to their site-office, questionnaires about wants and desires in the housing and drawings used in dialogues with residents. Even if only scarcely evident among the vast amount of material documenting the otherwise mainstream planning and design process, this participation is evident from material now kept in the Byker archives at RIBA Collections in London and ArkDes Collection in Stockholm.²

¹ Ralph Erskine Arkitekter AB, November 1968. Memorandum. Byker, RIBA Collections.

² Thank you to RIBA Collections and ArkDes Collection for their kind support during this research conducted for the project '(Im)Possible Instructions: Inscribing Use-value in the Architectural Design Process' between 2019-23. This project is funded by Independent Research Fund Denmark with Newcastle University and University of Copenhagen. See also: Heidi Svenningsen Kajita, 'Urgent Minor Matters: Re-Activating Archival Documents for Social Housing Futures', *Architecture and Culture*, (2022) <https://doi.org/10.1080/20507828.2022.2093603>; Heidi Svenningsen Kajita and Katie Lloyd Thomas, 'On File and As Files: Tracing Communicative Processes in the Byker Archives', (in review); and Heidi Svenningsen Kajita, 'Gossip and Complaint: Expertly Ways of (Re-) Producing the Social in Housing', in *Contested Legacies: Critical Perspectives on Post-war Modern Housing*, ed. by Andrea Migotta and Martino Tattara (Leuven University Press, 2023). These papers present supplementary arguments for inscribing residents' voices in architectural paperwork.

Figure 1.

Visual Transcript of A. Downey's Letter of Complaint by Heidi Svenningsen Kajita. 2023. Original: A. Downey, 1978, letter of complaint, Byker, RIBA Collections.



In this text, I focus on a small number of written complaints that are kept in boxes among invoices, contractual information, newspaper cuttings, and design documents. Together, this jumble of documents reveals how architectural paperwork not only guides construction of built objects, such as playgrounds, roads, or buildings, but also communicates and expresses imaginaries about broader societal conditions. Joan Ockman reminds us that:

architects are producers as much as authors; that buildings are not just finished forms but moments in a cycle of production; that architecture belongs to the world of commerce and also has political consequences; and that in striving to be beautiful it often ignores a world that is ugly and oppressive – all this is to establish solidarity between architecture and other social products and to give history and conscience to the things architects make.³

Architectural knowledge production is social in nature, and from that perspective, I maintain that architects' paperwork can contribute to producing social space by entangling varied societal and personal concerns, even at the most intimate levels. In the archive, lists and letters of complaint such as Downey's illustrated here, reveal how residents brought a range of both technical and social issues to the architects' attention. Following the understanding that forms of communication affect what we communicate about, I look to these marginal records, not only to learn more about the residents' rage and nagging in the redevelopment of Byker, but to question how these visual and material documents voice residents' concerns.

List and Letters of Complaints in the Archive

In a memorandum that sets out the principles for their commission in Byker, REA wrote that their main concern 'will be with those who are already resident in Byker, and with the need to rehouse them without breaking family ties and other valued associations of patterns of life.'⁴ They stressed that by allowing residents to make 'free choices,' they could avoid 'the creating of a static and "one type" environment.'⁵ The architects then initiated processes in the Pilot Scheme – the initial stage of the redevelopment, where the architectural team began not only to build professional local relationships and develop principles for their design but also to experiment with participatory design processes. After completion of this first stage of the phased redevelopment, residents were asked to submit lists of complaints to inform issues of repair and the continued redevelopment of the estate [Fig. 2 and 3]. However, residents wrote not just lists but letters as well – a means of communication used

³ Joan Ockman, 'Project or Product? A Critique of the Ideology of the Architectural Project', *Materia Architectura*, [S.l.], 08 (2013), 89-93 (p. 93). See also e.g Joan Ockman, 'Foreword', in *The Architect as Worker: Immaterial Labour, the Creative Class and the Politics of Design*, ed. by Peggy Deamer (London/New York: Bloomsbury, 2016), pp. xxi-xxvi; and Henri Lefebvre, *The Production of Space* 30th print ed (Malden Mass: Blackwell Pub, 2011).

⁴ Ralph Erskine Arkitekter AB, November 1968, Memorandum. Byker, RIBA Collections.

⁵ Ibid.

Figure 2.

Mrs Scurr, [undated], list of complaints, Byker, RIBA Collections.

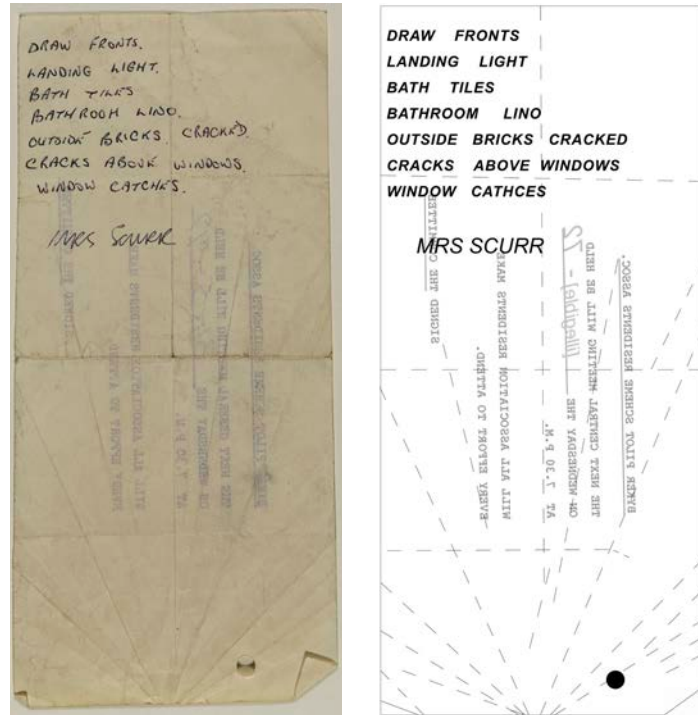


Figure 3.

Visual Transcript of Mrs Scurr's List of Complaint by Heidi Svenningsen Kajita. 2023. Original: Mrs Scurr, [undated], list of complaint, Byker, RIBA Collections.

throughout the rolling programme – to complain about design and wider concerns, including relationships between actors and the various phenomena, policies, politics, events, and economies of their local neighbourhood.

The lists and letters of complaint in the archive are mostly handwritten on small slips of paper. They appear on loose sheets of paper, sometimes copied and stapled. Some documents give a sense of having been prepared neatly and precisely for follow-up procedures, sometimes addressed specifically to someone, like the architects, involved in the development process. But sometimes the notes appear as if written hastily, as if residents used whatever paper was at hand. They are boxed up in the vast collection, of which I have only seen a small portion [Fig. 4]. Here they are filed with, say, architects' notes about street cleaning, a draft of Peter Malpass' study 'The Architects and the Community' and other academic reports, press clippings, drawings of the Pilot Scheme, Joint Inspection reports, an array of correspondence with the contractor, questionnaires and other documents used in the participatory process, Clerk of Works instruction sheets, certificates of payments; and more. The narratives revealed by these scraps suggest that sometimes they have been systematically filed amid design documents dealing with related issues. Sometimes the order in which they appear in a box seems arbitrary.

Attending to Complaint through Visual Transcription

The documents in the archives provide only a glimpse of the people who wrote these complaints during a particular moment during the years of redevelopment. Yet the lists and letters are important micro-level examples of concrete historical situations, where citizens, critical voices were welcomed in planning and design processes. Sara Ahmed's influential work on complaint in the context of academic institutions criticizes the idea that good citizenship has come to be expressed as nonperformative – that citizen participation means doing what has been done before and simply going along with it.⁶ In institutionalized systems, Ahmed notes that 'complaint can appear linear, a straight line. In reality, a complaint is often more circular (round and round rather than in and out).'⁷ Complainers face closed doors again and again when up against the smooth management of institutional progress. In that sense, the persistent, repeated form of critique offered by complaint, disturbs the bureaucratic rationale that underpinned design and planning in the decades after the Second World War. Nevertheless, modes of engagement of the list and letter of complaint can provide a partial view of how people's insubordinate 'rounds' of everyday problem-solving tactics had a function in the 'linear' processes of re-planning and rebuilding at Byker.

In creating the 'visual transcripts' of the complaints illustrated in this paper, I began with photographic snapshots I took of the archival documents. I imported the photographic file into InDesign and used both text- and graphic tools to trace the photographs graphic information such as words, numbers, lines, holes, and stamps. When typing on top of the handwritten text, I retained line breaks. I emphasize the difference between the archival records and the transcripts. The transcripts, of photographs of originals or copies alike, tell a story about being moved from one context into another. As such, I adhere to the visual presentation while transcribing – an act that forces me to take the time to painstakingly spell out all the writing errors, scribbles, line breaks and personalized techniques. The detailed graphics, such as underlines, stamps or creases in the paper, help me to track both material and social uses of the documents. From the text and graphics, I draw out aspects of relationships between individuals' grievances, and larger societal and professional issues and processes. In short, by using visual transcription to examine the lists and letters, I uncover techniques, from hole-punching to personalised greetings, that support a mediation of residents' voices in formal architectural accounts.

⁶ Sara Ahmed, *Complaint!* (Durham: Duke University Press, 2021), p. 48.

⁷ Ahmed, *Complaint!*, p. 34.

Visual and Textual Complaint Techniques

Mr J Hopper wrote directly in response to the architects' requests. Among other issues, he lists:

- Toilet. Seats. Downstairs buckled
- Upstairs. Cover & seat loose
- (Plumber again inspected said he could do nothing with them as they were just cheap material)
- No facilities for hanging washing
- Cracks between flag stones in back
- Garden need cementing Mrs Hopper has spoilt 3 pairs of Shoes thro getting her heels trapped.⁸

In his sparse description of materials, damage and use, Hopper gives clues about the detailing and finishing of the houses. These are reiterated even more sparsely in Mrs Scurr's shorthand list:

- Draw fronts
- Landing light
- Bath tiles
- Bathroom Wind
- Outside bricks cracked
- Cracks above windows
- Window catches.⁹

Mrs Scurr's note is written on the back of an invitation to a Byker Pilot Scheme resident association meeting. The fan-shaped fold marks suggest the sort of paper play one does while on the phone or staying alert during meetings.

Even if the lists at first appear untidy, they use specific graphic techniques to call for action. Bullet points, and annotated sketches, pagination and numbering ensure rapid overview and speedy reading. Some lists, such as one by Mrs Gibson, have been divided into sections by a horizontal line. Downey underlines certain words to stress what is most important. Other lists of complaints name issues according to place – bathroom, living room,

⁸ Mr J. Hopper. [Undated], list of complaints. Byker, RIBA Collections.

⁹ Mrs Scurr. [Undated], list of complaints. Byker, RIBA Collections.



Figure 4.

Byker boxes in the archive. Byker, RIBA Collections. Photograph: Heidi Svenningsen Kajita, 2022.

Figure 5A.

Visual Transcript of List of Complaint by Resident, 245 Janet Street by Heidi Svenningsen Kajita, 2023. Original: [unnamed, 245. Janet St], [undated], list of complaint, Byker, RIBA Collections.

kitchen, etc. – or address.¹⁰ From this scanty yet carefully constructed information, we learn about details in need of attention, from bricks that crack to faulty cementing spoiling Mrs Hopper's heels. But while the complaints are about things needing to be fixed, they also bring up issues of social and material relationships that demand more complex inquiry.

The complaints give clues to how decision-making processes about choices of design sometimes take unexpected routes to issues of wear and weathering. Numbering her problems (with design), Mrs Brown, for instance, describes '2) Top of the lane is always in a state with soil all over and when it rains it is like a mud bath' and '4) general lack of cleansing all over the estate (we need a regular road sweeper).'¹¹ Some of these points are echoed in Mr Hopper's long list that includes complaints about, 'xcessive noise coming in from outside front, back, and gable (children and older)', 'writing sprayed on various panels (through vandalism),' and 'when it rains muddy water runs off landscaping onto path and gets tread in the house. State of exterior landscaping both back and front disgraceful.'¹² Rather than the 'free choice' (of design) that the architects stimulated, the complaints turn the architects' attention to soil, rain, vandalism, noise from children's play, messiness, and lack of maintenance.

Some of the everyday problems are already in the process of being dealt with at the time of writing. Mr Hopper refers to a plumber, who inspected his toilet and said there was nothing to be done about 'cheap materials.'¹³

¹⁰ All lists referred to here are archived in Byker, RIBA Collections.

¹¹ Mrs Brown. [Undated], list of complaint. Byker, RIBA Collections.

¹² Mr J. Hopper. [Undated], list of complaint. Byker, RIBA Collections.

¹³ Ibid.

Figure 5B.

Visual Transcript of List of Complaint by Resident, 245 Janet Street with Architects Note by Heidi Svenningsen Kajita, 2023. Original: [unnamed, 245. Janet St], [undated], list of complaint, Byker, RIBA Collections.

The list provided by a resident in 245 Janet Street also mentions plumbing issues [Fig. 5a]:

Water tank to be clean.
Water running dark brown.
Reported 3 times still no action.¹⁴

The architects noted on a copy of the same list: 'Since brown water is coming from rising mains – fault is with Water [unreadable]. Andy said he would ring them'¹⁵ [Fig. 5b]. While complaints in the world at large often lead to dead ends, we learn from this note that in Byker architectural work included engagement even at the most detailed level of a paper slip with residents' repeated and proactive feedback.

The insights and engagement of residents with the broader social and material processes of re-planning and rebuilding their neighbourhood are further evolved in their letters of complaint. The more expansive narratives, unfolded in these letters, draw attention to contacts with neighbours and the complex communicative processes between housing officers, architects, contractors, and others. Mrs Wigham, for instance, who is clearly personally and emotionally affected, cries out:

One of my neighbours is almost a physical wreck but at last some one has managed to find other accommodation for her. When she moves I suggest either you Stanley Miller the builder, Mr Erskine, or Mr Gracie comes and spends a few night in her flat to find out at first-hand what you are condemning people to live in.¹⁶

As it happened, the municipal director of housing did make use of vacant flats to inspect the complaints. In a letter to the architects dated 15 November 1972, he wrote that 'as number 205 [Janet Square] was void I took the opportunity of checking on some of the complaints that have been referred to me by the tenants.'¹⁷ Even if he did not spend the night, he personally inspected the problems on residents' lists. A resident's personal plea can affect a professional's response.

¹⁴ [Unnamed, 245 Janet Street]. [undated], list of complaint. Byker, RIBA Collections.

¹⁵ Ralph Erskine Arkitekter AB and [unnamed, 245. Janet Street]. List of complaint. Byker, RIBA Collections.

¹⁶ Mr Dixon. 1972. Letter and copy of Mrs Wigham letter to Vernon Gracie. Byker, RIBA Collections.

¹⁷ Director of housing, 1972. Letter to architect. Byker, RIBA Collections.

Alexander Downey also addresses Ralph Erskine personally. He shares a small life story about his current living situation, explaining the urgency of his protest about the prolonged waiting time to be allocated a new home. 'Dear Sir,' he begins:

As you will see by our address, my wife and I are still living in slum property that is no bathroom an outdoor toilet, a large hole in the roof, a hole in the ceiling through which the rain pours, in other words its in dire straits, and on the point of collapse.¹⁸

Downey's letter is handwritten on lined paper and has been folded in half, likely to fit into an envelope. The words 'no', 'outdoor toilet', 'November 1976', 'scandalous', 'disaster', and 'make' are underlined for emphasis. Page numbers on the top of each page and P.T.O. written on the bottom are evidence of Downey's efforts to make his words come across with clarity for impact. On the 6 Sep 1978, the letter was stamped 'received' by the architects who assumably also hole punched and filed it. From the letter, we learn that Downey, despite struggling in poor living conditions, stayed well informed of the complex relationships of the redevelopment processes. He mentions that he has already written to a Mr K.A. Brockington at the Civic Centre, and he has been to see the architects in the offices on Brinkburne Street about the builders Marshall Constructions, whom he believes are responsible for the delay in completing his new house. Downey made efforts to stay informed, he waited, he made inquiries and waited again. Again and again over time, he tried to resolve problems in advance of formulating this letter.

Building on Residents' Complaints

The partial information offered by the lists and letters reveals some of the untidy, background labour of complaint that residents performed. The documents are evidence of how the resistance of residents was tangled in relational processes. 'Complaints often lead', in Ahmed's words:

to unofficial forms of communication – rejection, criticism, including criticism that you can't handle criticism – either addressed directly to the person who made the complaint or indirectly [...] through unofficial communication networks such as gossip and rumour.¹⁹

¹⁸ Alexander Downey. 1978 Letter of complaint. Byker, RIBA Collections.

¹⁹ Ahmed, *Complaint!*, p. 126.

Complaint is subordinate to professionalised systems and is therefore often difficult to notice. But the paper-based techniques of the Byker documents provide some suggestions as to how residents' complaints can be supported and to some extent become meaningful to actors, such as architects, both in the way complaints are requested and received via linear, professionalised routes and in the way complaints follow personalised routes.

In a radio programme broadcast in 1975, John Grey, the director of housing for Newcastle Corporation, describes discussions with residents in the 46 houses of the Pilot Scheme.²⁰ He describes how, after moving in, tenants were not involved in the redevelopment project for about six months. After this, Grey says, 'we were only too pleased to go back and have regular meetings with the association that they'd then formed and talk about the management of the estate.'²¹ However, they realised that the association 'is not too strong except at times when they feel they've got a beef.'²² In the programme, project architect Vernon Gracie goes on to present ideas about creating financial incentive to get residents involved long-term. Responding to this suggestion, Grey concludes:

Tenants do need some incentive unless they have, as I said just now, a complaint, people who get together and lobby the council if they're dissatisfied about something, but if they're generally satisfied the tenants at their meetings drop off.²³

Residents, whether individuals or collectively organised, stay with the difficulty of complaint work, because some grievances, even if they seem minor to some people, may be too important to disregard.

In summary, complaint lists and letters can be seen as micro-histories that tell us something about how design processes are intertwined with larger societal tendencies. While these individual, particular accounts do not fully represent the perspectives of the 9500 residents of Byker and only give hints as to how the complaints were used in the design processes, they raise serious concerns and demand to be met with sincerity. Architectural production does not take place in a vacuum but is conditioned by social

²⁰ <https://genome.ch.bbc.co.uk/2a7574ba51584289aea54b4d9796bf0d>
Bugler, Jeremy with Vernon Gracie, Caroline Purches, Banham, Erskine, residents, Galley. *This Island Now*, Rec. Date Thursday 20th March, 1975. Byker. ArkDes Collection.

²¹ Ibid.

²² Ibid.

²³ Ibid.

relationships. Complaints can be a professional's way of personally noticing that people differ from each other, and a necessary step to engage with residents at eye-level. The residents' complaint work is intertwined with that of other actors, such as architects, plumbers, municipal officers and contractors. While some actors bring special expertise needed at special times, residents play a major role in the continuous, everyday upkeep of built environments. Even so, residents' experiences and competencies are often overlooked in official accounts and architectural archives. In Byker, the architects established continuous exchanges with residents and vice versa. Building on these complaints, the paper-based communicative efforts of both professionals and residents obviously did not prevent frustration or fury, but rather embraced dissent in efforts to mobilise social change.

Biography

Heidi Svenningsen Kajita is currently working on the research project (Im)possible Instructions: Inscripting Use-Value in the Architectural Design Process (2019–23), funded by the Independent Research Fund Denmark. Kajita looks at how architecture and planning (re)produce social processes, focusing on the history and transformation of welfare state large-scale housing. She draws on emerging ethnographic-architectural methodology to combine knowledge of users' everyday practices, normative frameworks for the built environment, and architects' drawn and written work. Kajita is assistant professor at University of Copenhagen.

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Stephen Ajadi

Mapping Magic in Markets of Africa

In today's bustling urban world of commerce, markets often symbolise stocks, crypto-currencies, and financial flows. Yet, in Africa, markets offer a distinct experience — they transcend conventional structures, evoking a unique and enduring magic. This study examines the enchantment of the African market through an extended exercise of ethnography and photography. The study spans four years of market visits and individual interviews with over 6583 people. Using African mapping techniques and spatial approaches, the study, through an examination of selected markets in northern Nigeria, appraises the socio-spatial phenomenology of the African market. The study looks at the ways in which enchantment and phenomenology of the market are constructed, communicated, and contextualised in the complicated avenues of northern Nigerian living. Spatial anthropologies of time, security, community, and the cultural ritual of bartering are investigated in the architecture of the northern Nigerian market. The outcomes exhibit an in-depth understanding of what African markets are, how they live, what they struggle with, and how they thrive within the spaces of Africa.

Figure 1.

Maitagari cattle market, Jigawa, Nigeria (Moha Sheik, 2022).



What is This Place?

Nigeria is a country of nearly 220 million people distributed across approximately 400 different ethnic groups, speaking over 300 languages.¹ In the heart of northern Nigeria, as in many other parts of the African continent, are bustling markets that stand as vibrant extensions of the diverse cultures and intricate socio-spatial landscapes in which they are nestled. Unlike the techno-ridden spaces of commerce in the west where technology replaces various human activities in the ritual of buying and selling, these markets tell stories of history, raw human interaction, and economic survival. This nature of the markets offers a glimpse into a phenomenology of strangeness (or magic) that unfolds at the intersection of informality, diversity, and spatiality. The markets that flourish across Africa, particularly in Nigeria, have come to represent not just economic hubs, but also microcosms of the societies that they serve. In this rich tapestry, markets are inextricably woven into the fabric of the informal economy.

The market is a complicated reality with which to engage — whether theoretically, physically, or metaphysically. It can be a place, a process, an idea, or it can be all three at once. The term ‘market’ is very malleable — it is used to describe the activity of trade in many ecosystems, be it stocks of companies or trade between countries, and it is used to describe the exchange of goods and services for tangible value. It is also used in business and media theory as a verb that describes how a brand is communicated.² In cities of the West, the market is most often formal and ‘super’ — there are supermarkets, malls, and department stores. The city market is an architecture of physically structured allotments of goods (and sometimes services) in large buildings. The markets of Africa, however, are different in many ways. Temporally and spatially, despite the notion of informality that thematises African markets, they embody an economic system that is not easily recognised through a lens of material formality. Often viewed through the lens of poverty and development discourses,³ to date, Western scholarship has not shown a thorough understanding of the African market and its phenomenology. So, what is this place called ‘the market’ in Africa? How is it seen by formal systems of urbanity? Equally important, how does

¹ Mashood Omotosho, Lawrence Ihekuna and Opeyemi Fakoya, ‘Cultural Diversity and the Challenge of Inter-Ethnic Conflict In Nigeria’, *Journal of Humanities and Cultural Studies*, 2.3 (2020), pp. 165-171.

² Simon Knox, ‘Positioning and branding your organisation’, *Journal of Product & Brand Management*, 13.2 (2004), pp. 105-115.

³ Faith Ossy Ikioda, ‘Urban Markets in Lagos, Nigeria’, *Geography Compass*, 7.7 (2013), pp. 517-526.

it see itself? This study presents the spatial mysticism of the African market and how it is activated by social activity.

Methodology

The methodology employed in this study is a hybrid approach that combines ethnography with spatial analysis through close-up drone imagery. This multifaceted method aims to provide a comprehensive understanding of the dynamics and spatiality of African markets. The study is approached from two angles: ethnography and spatial analysis — each contributing to the hybridity of information that underpins this investigation. Undertaking an ethnographic study within markets is a challenging endeavour, particularly in the African context, as highlighted by Polly Hill in her investigations of northern Nigeria seven decades ago:

An African market is one of the most uncomfortable and inconvenient places in the world in which to conduct respectable fieldwork. [...] It is not so much the heat, the glare, the bustle, the overcrowding, the noise, the shouting (and consequent hoarseness) [...]. The difficulties are rather the extreme fluidity and complexity of the undocumented situation and the need to trouble informants at their moment of maximum anxiety, when they are concluding transactions.⁴

Over the course of four years (2018–2021), this study involved numerous visits to markets in northern Nigeria and an immersive six-month period of ethnographic embedment in Wuse market in Abuja. Two states in northern Nigeria were chosen for this study, each featuring two markets for examination. In Abuja, the primary areas of focus were Wuse and Nyanya markets, representing the city centre and periphery respectively. A total of 1473 interviews were conducted across both markets: 756 with Wuse traders and 233 with Wuse buyers, along with 417 with Nyanya traders and 67 with Nyanya buyers. The interviews and focus group sessions took place between October 14, 2019, and July 31, 2021. An additional 97 interviews were conducted in March 2020 during Nigeria’s COVID-19 lockdown and emerging protests. The study also includes 5057 physical interviews in Maiduguri. Drone images of Jigawa markets and ethnographic studies in Abuja and Maiduguri were incorporated into the study. These images underwent analysis to depict interactions among sellers, buyers,

⁴ Polly Hill, ‘Markets in Africa’, *The Journal of Modern African Studies*, 1.4 (1963), pp. 441-453 (p. 444).

and products/services within the markets. The mapping process relies on ethnographic data and imagery, creating a hybrid information approach to explain African market phenomenology and spatial dynamics. The resulting interaction mapping highlights the spatial characteristics of these markets.

The Socio-spatial Phenomenology of The African Market

Nigeria, with its diverse population, boasts the third-largest informal economy globally⁵ — which serves as a pulsating force behind the nation's domestic product, making up a market share that averaged 56.2% of the GDP between 1999 and 2006.⁶ The informality of African markets, far from breeding chaos, ushers in an enchanting sense of organised disorder as the markets have their own non-mainstream management. This 'open' environment becomes a breeding ground for a kaleidoscope of agency, products, and practices. The informal setting fuels innovation as traders adapt to dynamic market forces, devising creative ways to capture attention, and compete for the spotlight amidst the sea of commodities. It is a platform where the boundaries of formal and informal blur, allowing for a fluid expression of human agency, innovation, and resilience.

Amid the haggling and bartering, a symphony of languages intermingles, reflecting the intricate web of coexistence woven from countless threads of cultural heritage. While each market might possess a 'most common' trading language, the true magic lies in the linguistic heterogeneity that envelopes the space, where traders and customers seamlessly switch between languages to strike deals and establish connections. In the markets of the north, social production engenders spaces that, in turn, shape further social dynamics. This happens as the cultures continue to interact, giving rise to new activities (or transforming existing ones) that mutate the physical spaces of the markets. The very essence of the African market's spatiality emerges from the richness and diversity of its cultural heritage, becoming an ever-evolving canvas upon which stories are traded and identities take shape.

⁵ Behind Zimbabwe which is behind Afghanistan.

⁶ Friedrich Schneider, 'The Shadow Economy and Work in the Shadow: What Do We (Not) Know?', *The Institute for the Study of Labor*, Discussion Paper No. 6423 (2012).

Northern Nigerian Markets and The Spatio-temporality of making

Markets in northern Nigeria, have a high degree of temporality when it comes to their organisation and operation. A number of factors determine the temporality of a markets' operation, including customs primarily connected to culture and the arrival time of goods. Another factor is the nature of the goods sold. Some markets sell rare herbs, potions, and objects used in traditional religious rituals. These goods are cloaked in secrecy and usually have niche customer groups who shop under the cover of darkness. It is said that some night markets have non-human beings who sell goods to people — in some locations, the night market is sacred and not a space for children, and in others, the market timings are set around convenience for people coming from work. Whatever the reasoning behind the temporal shifts, the temporality informs the architecture of the spaces, and determines the activities that shape the market layouts. Night markets in Lagos and other parts of southwestern Nigeria, for instance, have roadside singers and spaces where stories are told to children. While some of these activities are not dedicated to the night, they seem to emerge as temporal conventions within some markets, and in most parts of Nigeria, children's stories are typically a nighttime affair — usually told under a tree in the moonlight.

In terms of operation, temporality becomes part of the phenomenology of space in African markets as the idea of 'brand new' takes on a different and more powerful meaning in the northern market. In the transaction of products and services, craft happens in real time. For instance, in Makarfi market in Kaduna, northern Nigeria, one can ask for a basket to be made in a particular way and while standing there the basket maker will make the customised item (see figure 2a–2c). In the cattle market of Maitagari, cattle can be selected, slaughtered, and packed for a prospective buyer within an hour. In other markets, tailors can make a piece of clothing from scratch while the buyer waits for it after selecting the fabric, and beads can be strung up according to the stylistic preferences of buyers on the spot. The very occurrence of these time-base services and product delivery contributes to the shaping of the market and the movement of people. Time is powerful in the northern Nigerian market, it underlies the birth of a market, its trade operation, and sometimes, it curates the very rendition of culture in its everyday activities.

Figure 2.

Basket weaving at Makarfi market, Kaduna, Nigeria (a) A weaver tending to a real-time request (b) Craftsmen taking stock (c) A wall-less basket shop (Moha Sheik, 2022).



Social Ties in Northern Markets

Social interaction in markets goes deeper than just the transaction involving an exchange of goods and services. Interaction among the traders is one of the most intricate social-ties typologies within the markets. Interactions vary from competition between the traders at sale points to immediate or instantaneous collaboration during sales. For example, if a trader does not have a particular product, it is sought in a 'friend's shop' and then taken back to the shop where the customer is waiting. The profit is then shared in a way that is contextually fair for both traders. Traders also help manage each other's shop or stall — in the Maitagari cattle market, some cattle sellers help their shop neighbours sell the same cattle they themselves are selling if a customer visits. They often have access to each other's stalls and cattle as their ties grow stronger. This kind of trust and business co-dependency increases the collective efficiency of the traders to sell and strengthens the communal spirit of the markets. This culture of collaboration influences the layout of the market's architecture (Figures 4 and 5 show how the layout of Shuwarin market enables their culture of business co-dependency).

The interaction between various organisations within the market forms a noticeable social tie. What is not common knowledge is the sophistication of informal management systems in these informal markets. Studies such as those by Hodder (1961), Hill (1963, 1966), Ikioda (2013), and Grossman (2021), have shown how spatially sophisticated and ubiquitous 'local' management is

in African markets.⁷ The leadership and management of the markets have two forms: formal and informal. The formal, government-recognised leadership allows the government to formulate custom taxation techniques and enforce government policy within these highly informal and decentralized spaces. In Abuja, this role is played by the Abuja Market Management Limited (AMML). The second form is highly informal, and it is one of the systems that binds the markets together as individual communities. These local people-centred organisations are sometimes thematised (e.g., based on religion, ethnicity, the typology of a product, or gender) but they look out for each other and engage in activities that go beyond the ritual of buying and selling. Marriages and families with new babies are celebrated, people contribute money to help those in need, and come together to celebrate together various occasions based on their customs.

Vulnerability and the Magic of Resilience

African markets exhibit remarkable resilience in the face of adversity.⁸ For the markets in northern Nigeria, this has been accentuated by external conflicts and economic downturns. These two forces often act simultaneously or as one because of the other. Markets in Nigeria have constantly endured wars and traded directly with countries as far as Yemen and England for well over half a millennium, from the times of caravans across the Sahara, through the nineteenth-century Islamic invasions of northern Nigeria up until the arrival of the British.⁹ Despite their assumed vulnerability due to their bustling and densely crowded nature (figures 1 and 3), markets manage to withstand the impact of conflict and violence.¹⁰ Sub-Saharan Africa (SSA) has become a focal point for global conflict, violence, and terror, with SSA's share of violence-driven internal displacement rising from 38% in 2016 to an astonishing 80.4% as of 2021 (IEP, 2022). Notably, northern Nigeria, including areas like Borno, Yola, and Yobe, has borne the brunt of this trend

7 B. W. Hodder, 'Rural periodic day markets in part of Yorubaland', *Transactions and papers* (Institute of British Geographers, 29 (1961), pp. 149–159; Polly Hill, 'Markets in Africa', *The Journal of Modern African Studies*, 1.4 (1963), pp. 441–453 (p. 444); Polly Hill, 'Notes on Traditional Market Authority and Market Periodicity in West Africa', *The Journal of African History*, 7.2 (1966), pp. 295–311; Faith Ossi Ikioda, 'Urban Markets in Lagos, Nigeria', *Geography Compass*, 7.7 (2013), pp. 517–526; and Shelby Grossman, *The Politics of Order in Informal Markets: How the State Shapes Private Governance* (Cambridge University Press, 2021).

8 Stephen Ajadi, 'Violence, Disruption, and the Spatial Resilience of Northern Nigerian Markets', *The Cambridge Land Society*, (2022).

9 Grace O. Okoye, *Proclivity to Genocide: Northern Nigeria Ethno-Religious Conflict, 1966 to Present* (London: Lexington Books, 2014); Alhaji Hassan and Shuaibu Na'ibi, *A Chronicle of Abuja* (African Universities Press, 1962); Stephen Baier, 'The Sahara in the nineteenth century', in *General History of Africa: Africa in the 1800s*, ed. By Ade Ajayi J.F. (Oxford: Heinemann, 1995), pp. 515–336; and M. Last, 'The Sokoto Caliphate and Bornu', in *General History of Africa: Africa in the 1800s* (ed) Ade Ajayi J.F. Oxford: Heinemann, 1995).

10 Stephen Ajadi, 'Violence, Disruption, and the Spatial Resilience of Northern Nigerian Markets', *The Cambridge Land Society*, (2022).



Figure 3.

Shuwarin market, Jigawa, Nigeria (Moha Sheik, 2022).

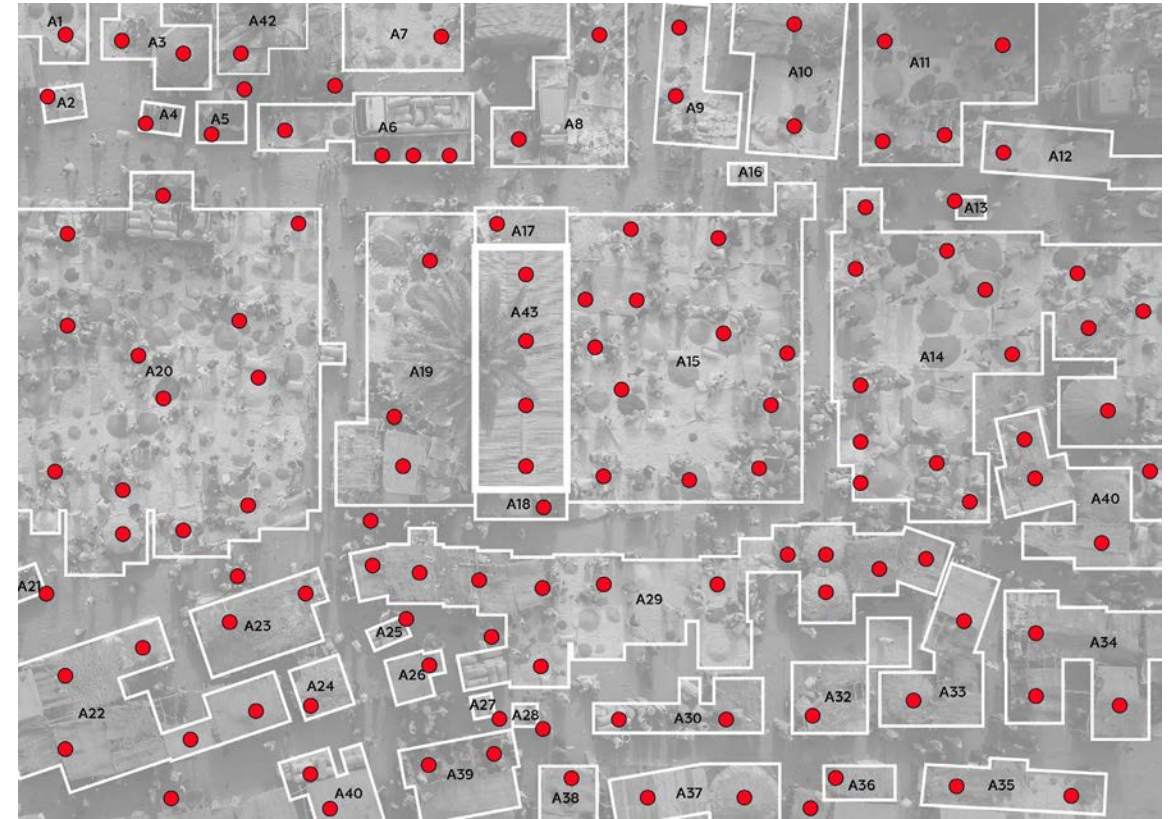


Figure 4.

Mapping of trade spots in Shuwarin market, Jigawa, Nigeria (Source: author's own).

over the past decade. Markets in these regions, especially Borno, have been severely affected by terrorist activities, disrupting the trade of food products to neighbouring countries and other parts of Nigeria, including the capital city of Abuja (Van Den Hoek, 2017). The period of the COVID-19 pandemic in 2020 is also cited as a force that challenged the market's economic stability. Yet the markets have somehow endured.

Markets and Their Responses to Conflict and Violence: Nyanya and Wuse

It is interesting to know how markets survive conflict and struggle to thrive despite public perception of their safety. This study investigated the Wuse and Nyanya markets in Abuja, as well as the city of Maiduguri in Borno — a global hotspot for extreme violence and terror since 2009. In the interviews with buyers at the markets in Abuja, the Wuse market was perceived to be one of the safest markets in Abuja, and Nyanya one of most dangerous (see table 1). Even though both markets have been attacked in the past, the scale of Nyanya's more recent attacks is still fresh in people's minds — on 14 April 2014, at a crowded market bus station, a bomb exploded killing at least eighty-eight and injuring over two hundred people. Studies with the traders in Nyanya market, show that after the bomb blast, the sales in the market dropped by at least 60%. Buyers chose other markets and only traders with customers with whom they had developed strong ties managed to continue to make sales.

According to the Nyanya market management, approximately 15% of the traders relocated after this attack. However, most of the traders stayed and rendered help to each other to push through the period of poor sales that lasted between six to nine months. In Nyanya, there are over fifty local groups in the market — most are grouped based on produce. This categorisation allowed cooperative development strategies that were specific to each group during the period — from lending each other funds, to working collectively on shop cleaning and other activities to reduce costs, the markets were able to survive and stay in service. The methods put in place in the markets are evident in the juxtaposition of how they perceive their own safety in the face of extreme violence compared to how those whose who shop at the markets feel (see table 2). In terms of safety perceptions, the analysis shows higher confidence levels expressed by the traders than the general public who come to the market.

Table 1: Buyers' poll of safe and unsafe markets in Abuja (Source: author's own)

Wuse Market				Nyanya Market			
5 least safe markets	Respondents (%) of 233	5 safest markets	Respondents (%) of 233	5 least safe markets	Respondents (%) of 67	5 safest markets	Respondents (%) of 67
Nyanya	27.16	Wuse	50.43	Nyanya	23.88	Wuse	53.73
Not Sure	20.26	Garki	28.02	Maraba	17.91	Garki	22.3
Wuse	8.19	Not Sure	7.76	Masaka	14.93	Nyanya	10.45
Utako	6.47	Jabi	4.31	Not Sure	11.94	Not Sure	7.46
Karimo	6.03	Utako	3.02	Karimo	10.45	Karu	2.99

Table 2: Perceptions of safety: Abuja and Maiduguri (Source: author's own)

SP categories	Likert (5-scale)	Respondents (n)
SP (n) Traders	3.65	417
SP (n) Buyers	2.98	67
SP (w) Traders	3.84	756
SP (w) Buyers	3.80	232
SP (Maid) Public	3.48	5057

SP=Perception of Safety; n= Nyanya market; w=Wuse market;
Maid= Maiduguri

Table 3: Perceptions of market people in Wuse during the Pandemic and Uprisings (Source: author's own)

Perception (%)	Transport Difficult before COVID?	Transport Difficult during COVID?	Ease of Supply Flow Better during COVID?	Sales Frequent (pre-COVID)?	Sales Frequent during COVID?	COVID Guidelines followed in Market?	Government Leadership Present?	Market Security Present?	Personal Safety Present?
Generally, Agree*	16.5	69.0	80.5	62.9	41.2	44.3	45.4	88.7	79.4
Indifferent	5.1	16.6	11.3	20.6	17.5	30.0	22.6	9.3	13.3
Generally, Disagree**	78.4	14.4	8.2	16.5	41.3	25.7	32.0	2.0	7.3

*'Strongly agree' + 'Agree' opinions; ** 'Strongly disagree' + 'disagree' opinions

Resilience in The Markets to Economic Shock: The COVID-19 Lockdown

The impact of conflict, violence, and economic shock go hand in hand as forces that test the resilience of markets in northern Nigeria. The lockdown period in Nigeria brought about both forces simultaneously to northern markets.¹¹ The lockdown cut off regular sales and made transportation of goods to markets very difficult (table 3). During this period, markets were the only public space working in the entire country. Traders not only had to continue work, but they also had to risk being infected by COVID-19. The government cut down market worktimes to one day a week and reduced opening hours. The population of Wuse market dropped by 60% and only traders selling essential goods were permitted in the market space. Transportation to the marketplace was easier as almost all cars were off

11 Olufemi Aladejebi, 'Managing Small Businesses in Nigeria during COVID-19 Crisis: Impact and Survival Strategies', *Journal of Business Management*, 22.8 (2020), pp.24–34.

the road, however, the flow of goods for sale in the market grew difficult as interstate movement was impossible for the public (table 3).

Despite these challenges, informal strategies kept operations running — some shop owners sold for their neighbouring traders who could not come to the market, local groups in the markets pooled resources, and food was even sent to traders who were not allowed to trade in the markets. Even though the markets operated communally, their modular independence meant that the closure of some shops did not affect the overall operation of the market. The formal commercial sector could not manage a similar resilience as the mutation of the workspace to the home reduced work production drastically, supply chains collapsed, and many formal workspaces were disabled.¹²

Macro Level: The Magic that is the Market.

In *Seeing Like a City*, Ash Amin and Nigel Thrift position the city as a living thing, not just metaphorically, but socio-spatially, with physical manifestations embodying complex networks built up of agencies of countless actors.¹³ This alone is enchanting — that a city can be living, not just as a result of the people, but as a result of itself. At the macro level, the northern Nigerian market is a living organism that breathes, grows, and thrives based on the workings of its own social production.

One of the most obvious spatial elements of the African market is its boundary. There are many factors affecting how and why various markets sprawl. Boundaries of African markets are not simple — markets pull buyers, therefore new traders take advantage of the informal structure to set up stalls around the 'edges' or proximities. One of the main impacts of this characteristic is the challenge of security. The more complicated the sprawl, the more difficult it is to track human activity. Of the ninety-four major markets identified in Abuja, fifty-six of them exhibit uncontrolled expansion and sprawl. Good examples are the Maitagari and Nyanya markets (see figure 5).

At the macro scale, a single market can contribute to a flow of products and services across states and even countries. In northern Nigeria, the proximity of the region with landlocked countries extends the impact of the market activities to international territories. Figure 6 shows the land economy of

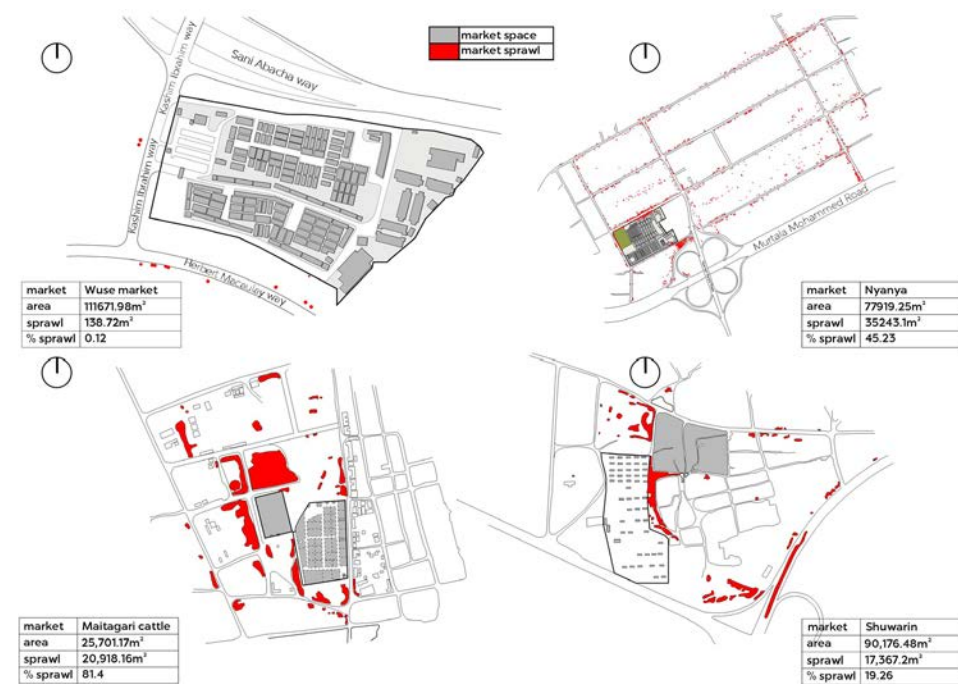


Figure 5. Sprawls of selected markets in the north of Nigeria (Source: author's own).

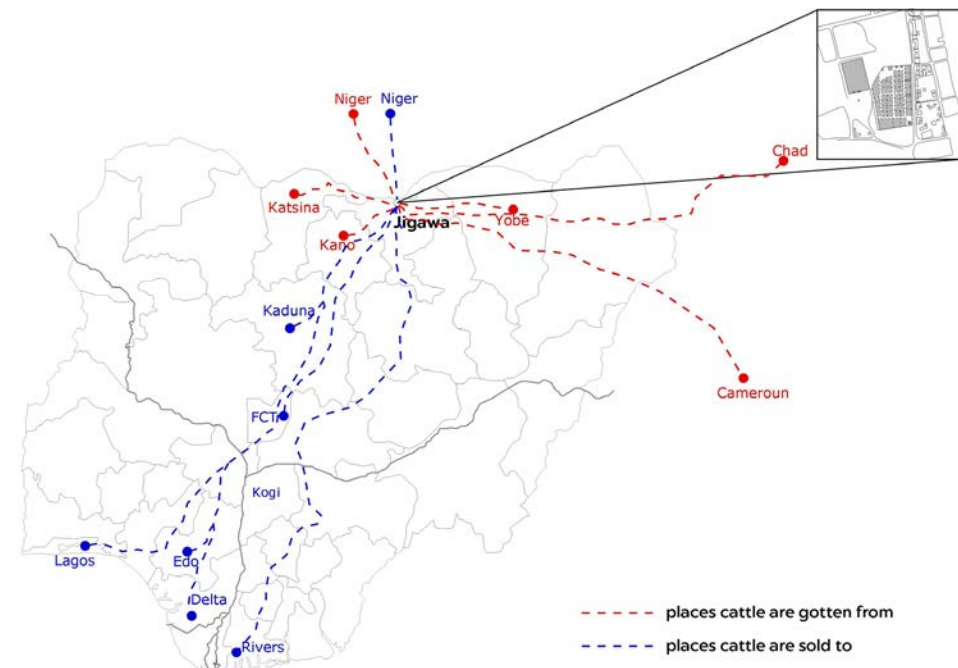


Figure 6. Flow of cattle through Maitagari cattle market (Source: author's own).

¹² Ibid.

¹³ Ash Amin and Nigel Thrift, *Seeing Like a City* (John Wiley & Sons, 2017).

cattle trade linked to Maitagari market in Jigawa alone. The influence that the market has on the provision of cattle extends all the way through the centre of the country to southern Nigeria. In the north, it extends across Nigeria to Chad, and Cameroon. This hints at the impact that Nigeria's conflict with the junta-led countries in Africa by ECOWAS can have on the flow of livestock and other products, as well as the very socio-economic rhythm of the informal markets of the Sahel.

Micro Level: We Do Not Relate in a Straight Line

In typical contemporary markets and spaces of everyday trade, products and traders are arranged across straight lines. The spatiality of the very ritual of trade in markets such as those examined, is that trade takes place face-to-face. In more recent times globally, the digital revolution has cut out the humanness from the ritual with the development of a cashier-less space where trade is physically automated, and customers are able to purchase products using an automated or self-checkout station. A recent implementation is Amazon Go, with over forty shops across Chicago, Seattle, New York, and London.

In informal African markets, people, and their socio-cultural identities, matter in trade. They banter and talk in groups, sharing experiences during the ritual of trade. This creates a non-linear micro space. There are clusters instead of the linearity found in more formal settings — trade takes an African communal shape. Influenced by the activities of the buyers and sellers the aggregate spatial distribution is synonymous to most African gatherings — figure 7 shows the clustering architecture of the market layout in terms of trade points. In Maitagari, density was found to increase as the micro boundaries increase (Figure 5), and the clustering defined the floor plans of the market in places where the ratio of humans to cattle was almost 1:1 (see Figure 7 and Figure 1). The clustering is a powerful spatial character — it is the shape of people sitting under a tree, the shape of children singing and dancing in circles, the shape of communal spectacles where a village sits in a circle to watch masquerades perform, and it is the shape when public attention is magnetised. This is the spatial way of community in northern Nigeria. However, current market designs in the north still try to enforce architectures that favour more rectilinear activities, and there is an underlying effort to mimic the west. What this fails to recognise is the culturally specific pre-existing identities and phenomenology of African markets.

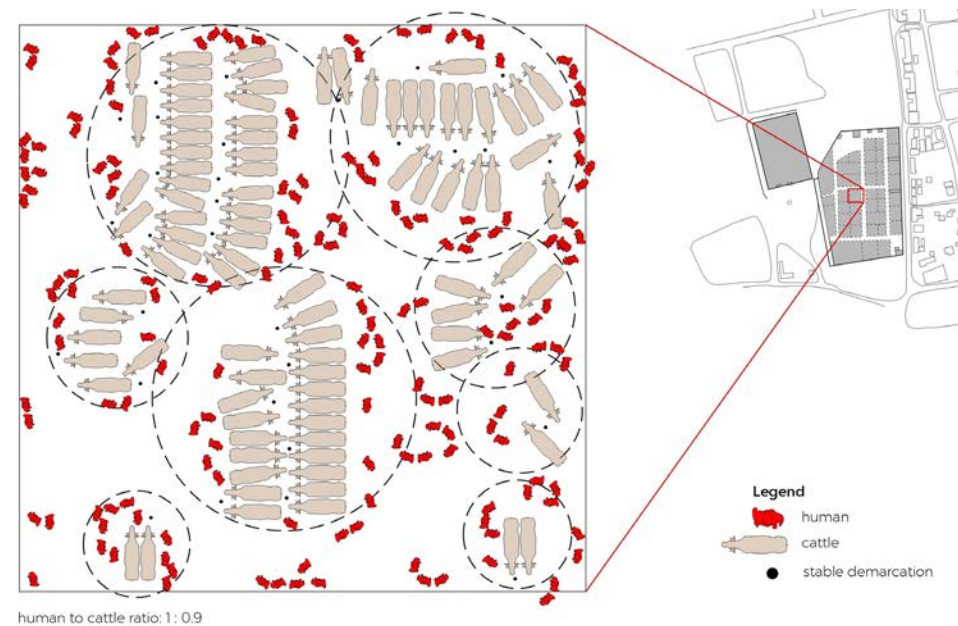


Figure 7.
Flow of cattle through Maitagari cattle market (Source: author's own).

Conclusion

The markets of northern Nigeria have a phenomenology specific to their spatiality that are forged by culture, economics, socio-spatial relationships, and of course history (time).

A market is kind haven for the wandering soul
Or the merely ruminant. Each stall
Is shrine and temple, magic cave of memorabilia.
Its passages are grottoes that transport us,
Bargain hunters all, from pole to antipodes, annulling
Time, evoking places and lost histories.¹⁴

The enchantment of African markets is evocatively presented in Wole Soyinka's collection of poetry, *Samarkand and Other Markets I Have Known* (2002). Soyinka breaks down the market into units of spatial composition and agency — presenting the market space, the buyer, the trader, the ritual of trade, and the stall as 'shrine and temple' where the ritual of negotiating value is carried out by 'hunters' (buyers and sellers) who pursue (hunt) various things in life. It is timeless. The African market is not a 'spot' for buying and selling, it is a space of life. Many cultures in Nigeria including the major groups of the Yorùbá and the Hausa, see the market as a direct metaphor of life itself — a

¹⁴ Wole Soyinka, *Samarkand and Other Markets I Have Known* (Methuen Pub Limited, 2002), P. 49.

place we come to look for what we want, exchange it for what we have, and then return. Indeed, the African market is a space in which the magic of diversity, informality, and theatre intertwine to craft a story that is unique and enchanting. It is a place in which social identities dance, economies flourish, and cultures collide. As the sun rises and sets over the bustling stalls, the pulse of the African market continues to beat, a testament to the resilience, resourcefulness, and unyielding magical spirit of its people.

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Biography

Stephen Ajadi is an award-winning architect, planner & development economist. He holds postgraduate degrees in architecture, sustainable design, economics, and management, all with distinctions. He runs RUBAN Office, an architecture and planning practice in Nigeria and Uganda. He founded the Penumbra Space Foundation to help displaced people and also the Cambridge Initiative for African Urbanism. He has just completed his doctoral study in Land Economy at the University of Cambridge. Stephen is currently a faculty member at the AA School in London where he teaches African Urbanism.

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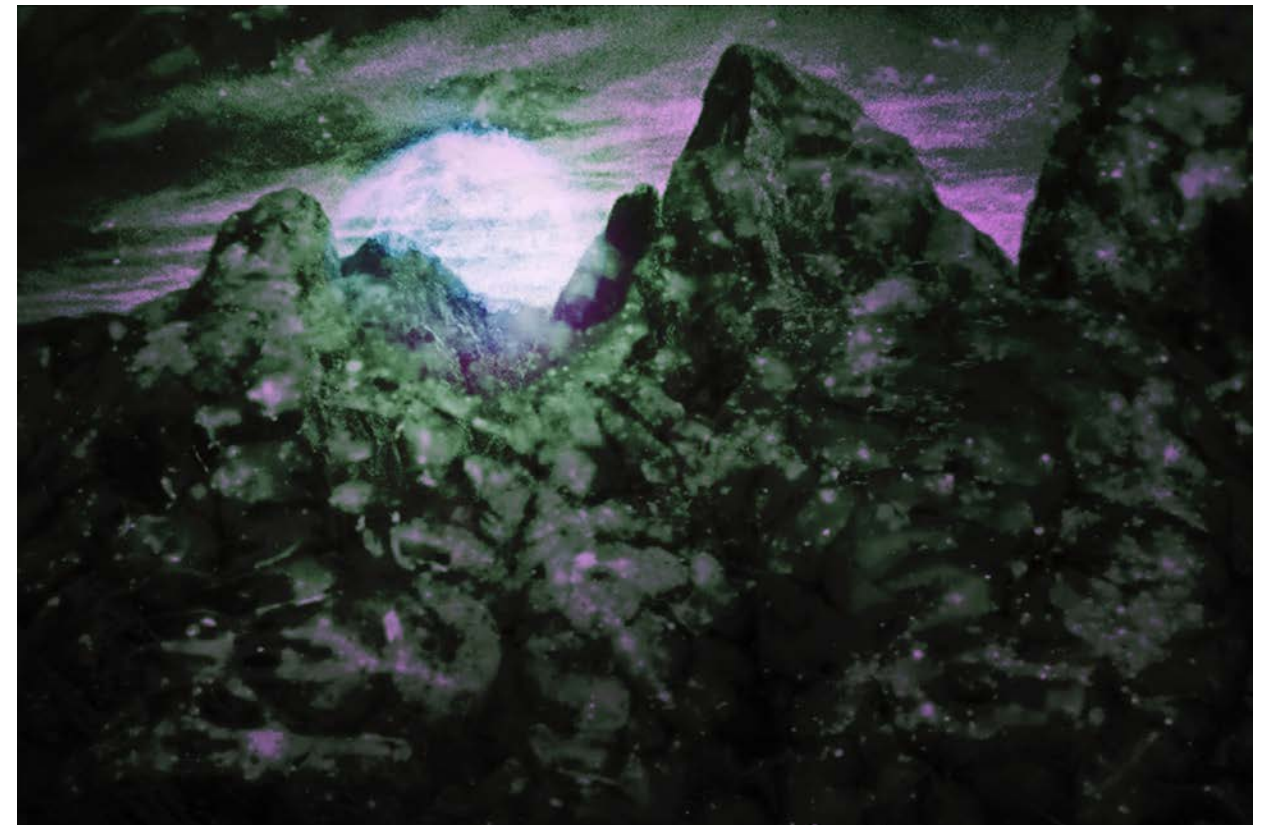
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Marine de Dardel

If We Opened People Up, We'd Find Landscapes

Figure 1.

*Inscape #2,
Solarplate, 30 x
20 cm; ©Marine
de Dardel, 2023.*



If we opened people up, we'd find landscapes¹

My head was an egg in a giant's cup
A feast to the beast about to gulp
He gazed amazed to the luscious pulp

My brains spread like plains on a wrinkled map
Some glistening goo oozing with sap
Maverick mind, oh vicious trap

The land was a strand of intricate ways
Forking paths dipped in purple haze
Haphazard strides in the lush maze
The trail came to life though stiff and dull
Hemlock and vines poured out of my skull
Down to the ground, barren and null

The chart once drafted, estates were chosen
Ballards and hedges countlessly risen
Boroughs and sorrows forever cloven

The contract was set, all risked the wager
To live and die in face of the ogre
Fat of their land, yet none the braver

My mind is a map to worthless spoils
A grid that a kid drew on the shore
He traces and paces forever more

¹ Agnès VARDA, in: *The Beaches of Agnes (Les plages d'Agnès)* 2008.

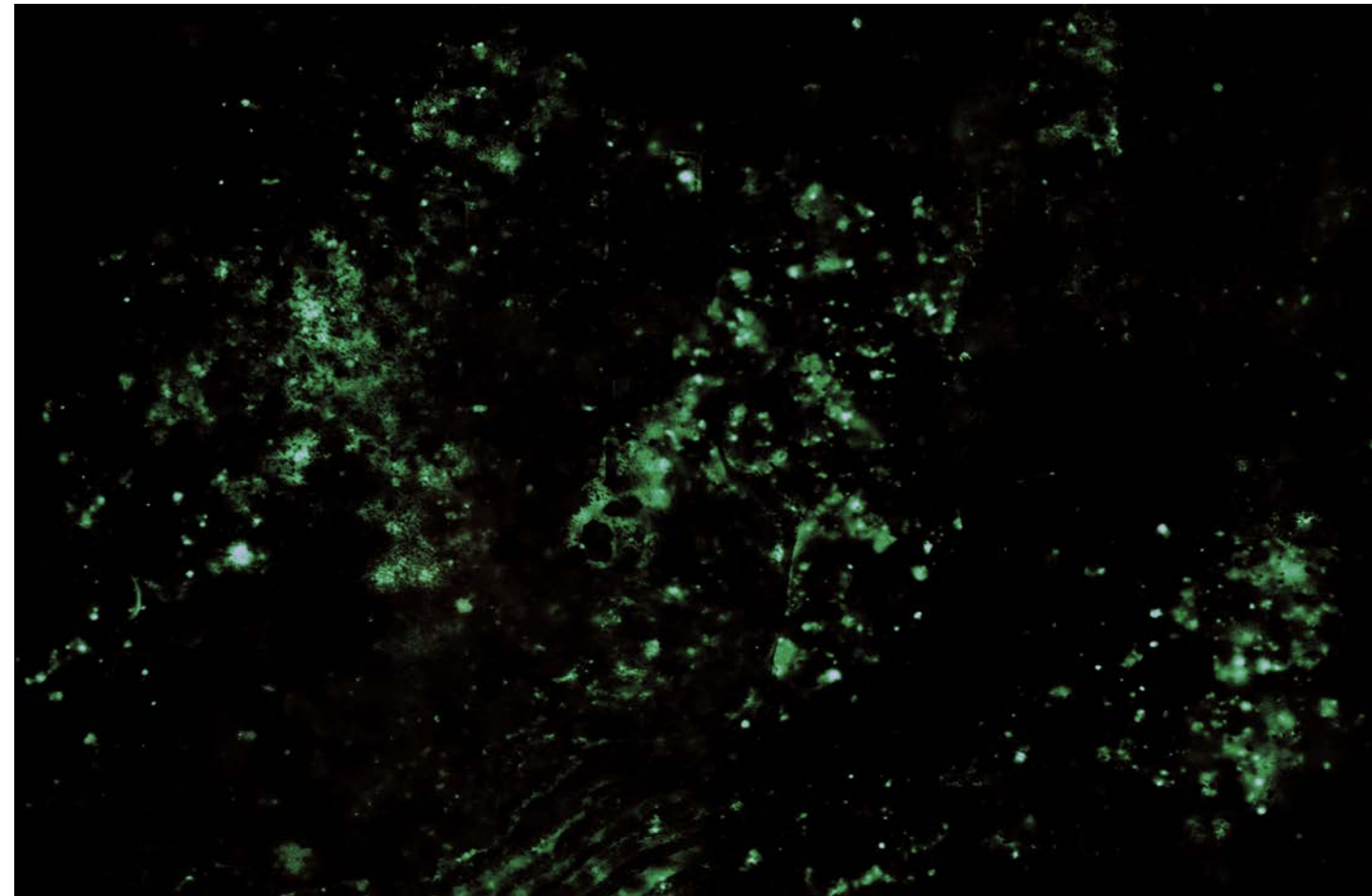
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Biography

Marine de Dardel studied architecture at the Swiss Federal Institute of Technology in Zurich (ETHZ) and Creative Coding at the Zurich University of the Arts (ZHdK). Since 2018 she holds a position as a teaching assistant and research fellow at the Voluptas Chair for Architecture & Design (ETHZ) and is currently head-assistant of the design studio and a lecturer. She has taught various workshops experimenting with architectural language and computational narratives besides being engaged in publication projects and architectural practice. Experimenting with a wide range of analogue and digital media, her research focusses on radical fringes and the questioning of strait-laced conformism.

Figure 2.

Inscape #4,
Solarplate, 30 x
20 cm; ©Marine
de Dardel, 2023.



Previous issues

1994	Scroope 6	1989	Scroope 1	1999	Scroope 11
1995	Scroope 7	1990	Scroope 2	2000	Scroope 12
1996	Scroope 8	1991	Scroope 3	2001	Scroope 13
1997	Scroope 9	1992	Scroope 4	2002	Scroope 14
1998	Scroope 10	1993	Scroope 5	2003	Scroope 15

2004	Scroope 16	2012	Scroope 21	2017	Scroope 26	2022	Scroope 31
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