New industrial **urbanism:**

a study of working cities in Europe where the integration of existing industry and new development has transformed production and consumption

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Michael Chapman was awarded the Byera Hadley Travelling Scholarship in 2012.
Cover image: An historic crane from the Old Port of Antwerp, on the banks of the Scheldt River. It is one of a series of twelve restored cranes that line the banks of this disused industrial edge, which now functions as an outdoor museum and recreation space.
Photo by Michael Chapman

A study of seven European cities where new urbanism puts existing industrial waterfronts and working sites at the heart of new mixed-use precincts.

This research aims to understand how the merging of commercial and residential programming into existing industrial centres revitalises the connection between production and consumption.

1

Introduction

This research set out to chart the development of a number of industrialised centres in Europe, in order to understand the role of industrialisation in the development of these key cities. The research saw me visit more than 20 countries over the course of six months, covering over 12,000 kilometres, and visiting port cities fronting the Atlantic Ocean, the Baltic Sea, the Mediterranean, the Black Sea, the Caspian Sea and the Pacific Ocean. Of particular interest were the cities framed in the original proposal: Sheffield, Gdansk, Riga, Stockholm, Odessa and Vladivostok.

The motivation for this study was to understand and document the emergence of a new mode of industrial urbanism in Europe, where a number of nineteenth century cities have maintained their industrial function but integrated public programmes and access to the spaces around industry creating a new paradigm in urban waterfront space. The marrying of industrial function with residential and commercial programming revitalises the connection between production and consumption that was central to the development of cities after the Industrial Revolution.

When Siegfried Giedion wrote his history of industrialisation in 1948 under the title *Mechanisation Takes Command*, he posed an argument that the role of the machine and factory threatened the basis of humanity, as individuals became increasingly subservient to industry. He argues that, in the process of empowering the machine in order to advance human capability, humans have lost their connection with nature. The body is a continual backdrop throughout, as Giedion analyses the technology that has enabled its movement, sustenance, cleanliness, comfort and productivity to be enhanced over time. The feeding of the body—the development of agriculture[1], the making of bread[2], the emergence of the slaughterhouse as the paradigm for the factory[3] — is an ongoing concern, directly tied to the "organic" and lived but, as Giedion shows, amongst the most advanced reaches of industrialization and mechanization that he presents. Through the development of incubators (for eggs) and the modification of seed (through its development as a hybrid commercial product), the natural processes of "growth" are gradually replaced with manufacture, to an extent that the industrial literally usurps the biological.

Also implicit is the dividing of the body in mechanization, as it is disassembled and displaced on the factory assembly line, or harnessed to machines that tame the ground. In Giedion's historical account, architecture, like design and art generally, was merely subservient to the forces of mechanization and productivity in the nineteenth century, and these had led to the hegemony of the machine that characterized the twentieth century. Where Giedion had pronounced, as early as 1922, that "architecture can only flourish where it can be in control, and put other forms of art in their place"[4], by the mid-1940s, he was convinced that architecture had surrendered control to the forces of industry (and economics) and was, more than most creative fields, entirely dependent upon it.

The themes of industrialisation were not new to architectural and urban history at the time Giedion was writing. Herbert Read's widely read *Art and Industry*[5] had, by 1934, established a popular platform from which the creative arts could engage with this new culture of manufacture, and the work of Lewis Mumford[6] in the same time period had already begun to investigate the role of the machine in the history of the city. Equally importantly, the seminal histories of Abbott Payson Usher, charting the Industrial History of England[7], and then, in a comprehensive account, the history of mechanical inven-

The presence of industry within the recreational and commercial life of the city is not widely acknowledged in the scholarship of cities.

tions[8] began to develop the framework for a sociology of industry, that looked at the historical evolution within a broader context of social and political reform. However, despite the relationship between modern architecture and the manufactured object in the pre-war era, the relationship between industrialisation and the city, remained underdeveloped. With the exception of Antonio Sant Elia's visions of a technologically inspired futurist city in Cite Nuova (1914) or Tony Garnier's canonical Cite Industrielle, the relationship between urbanisation and industrialisation remained underdeveloped as both a social and aesthetic phenomenon throughout the interwar period.

The period after the Second World War saw an increased interest in industrialisation and architecture, led, to a large extent, by Reyner Banham. Banham's influential history of modernism drew attention to the importance of manufacture in the development of modernism[9] and he sought a closer relationship between these two spheres. His history in AConcrete Atlantis: US Industrial Building and European Modern Architecture[10] was amongst the first works to methodically trace this connection and demonstrate its significance, while still focussing, to a large extent on buildings and products, rather than cities and their organisation.

Despite these advances in scholarship, the spatial and social aspects of the industrial city are still, to a large extent, underdeveloped in the study of architecture and frequently reduced to a discussion of broad planning paradigms and nineteenth century heritage ideals. An architectural and ethnographic reappraisal of industrial cities has not been attempted, although isolated case studies do exist. Artists such as Bernd and Hilla Becher's have sketched a photographic taxonomy of industrial forms through buildings, but the role that these buildings play in urban and spatial configurations is left deliberately abstract and suppressed. This study sets out to tentatively bridge this gap, by undertaking a taxonomy of the industrial city, and with a focus on Northern European cities in their diverse and historically complex contexts.

Fundamentally, the presence of industry within the recreational and commercial life of the city has not been widely acknowledged in the scholarship of cities, and the prevailing discourse tends to polarise these zones and rarely acknowledge the intersection between the two. This tends to overlook the role of industrial landscapes in shaping the collective memory of a city's population and the importance that this has on the creation of vibrant urban spaces as well as civic identity. Industrial architecture has the ability to connect the city with the harbour in new and exciting ways, and the cycles of modernism demonstrate the potential for a successful integration of urbanism and industry.

This study is partly in response to the removal of industrial functionality from a number of critical Australian cities, which have replaced working industrial waterfronts with generic commercial development. Newcastle, on the east-coast of Australia, is one prime example of this, where the southern edge of the harbour has retained only isolated traces of its industrial past, which has increasingly been pushed further and further away from the centre. The centrality of industrialisation to notions of urbanism in the 21st century is a principle that underpins the entire project. >

1 Siegfried Giedion, *Mechanization Takes Command* (New York: Norton, 1969), 130-167 [orig. 1948].

2 Giedion, *Mechanization Takes Command*, 169-201.

3 Giedion, *Mechanization Takes Command*, 209-240.

4 Siegfried Giedion, *Architektur und Kunstgewerbe* (1922) quoted and translated in *Sokratis Geogiadis, Sigfried Giedion, An Intellectual Biography*, trans. Colin Hall (Edinburgh: Edinburgh University Press, 1993), 100.

5 Herbert Read, Art and Industry (London: Faber and Faber, 1934).

6 Lewis Mumford, Technics and Civilisation (New York: Harcourt Press, 1934).

7 Abott Payson Usher, An Introduction to the Industrial History of England (London: Houghlin Mifflin Co., 1920); see also: Abott Payson Usher, *A History of the Grain Trade in France: 1400-1710* (Harvard: Harvard University Press, 1913).

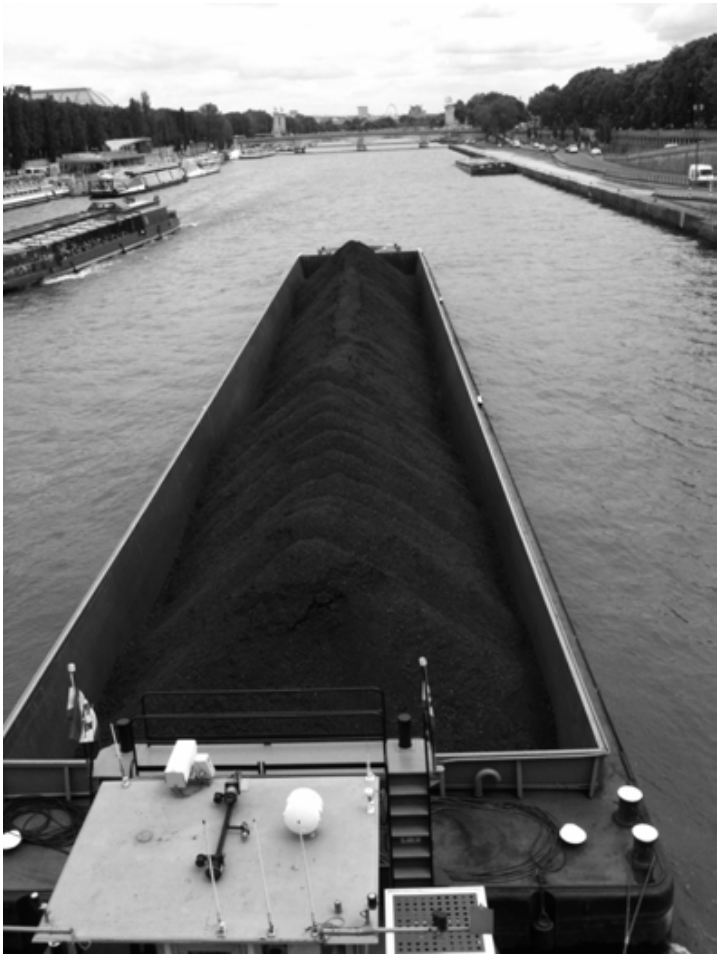
8 Abott Payson Usher, *A History of Mechanical Inventions* (Harvard: Harvard University Press, 1929).

9 See: Reyner Banham, *Theory and Design in the First Machine Age* (London: the Architectural Press, 1960).

10 Reyner Banham, *A Concrete Atlantis: US Industrial Building and European Modern Architecture* (Cambridge, Mass. The MIT Press. 1989).

1. Paris

No city is more evocative of the romantic values of the nineteenth century metropolis than Paris. While the city owes its dramatic expansion to the industrial revolution, its urban fabric intertwines nature, production, consumption, aesthetics and recreation in a seamless and sophisticated manner that gives it a unique historical texture that is ingrained within its morphology. So pervasive is the romantic image that Paris conjures, that the influence of industry is easily forgotten, despite the presence it still has in the cultural and social life of the city. Across the suburbs of Paris, decommissioned factories have been converted into art spaces, fashion houses, cafes and restaurants. Interspersed between the tourist vessels that ply the Seine throughout the year is the steady passage of coal barges that link the city with industrial infrastructure to the south and north. Zola had described the character of this coal industry that was enveloping Paris in the late nineteenth century in his novel Germinal, which depicted the passage of coal from the mine to the city in all of its raw and sometimes violent simplicity.



Paris, France (2012) author

As Zola writes,

> "For a while now, a particular muffled sound had been worrying him, the distant tumult of a storm rising from the bowels of the earth and which seemed to be getting increasingly violent [...]. A patch of light pierced the darkness, he felt the rock vibrate, and, having pressed his back flat to the wall, like his comrades, he saw a large white horse go past his face, pulling a train of coal tubs."[11]

If the atmosphere of nineteenth century industrialisation in France was brought to life in literature by Zola, its legacy was stamped across the entire fabric of Paris.[12] The nineteenth century industrial heritage of Paris has since been incorporated within the urban morphology of the city to an extent that has allowed its easy transition into "post-industrial" forms, while retaining the nostalgic connection to industry and history. Unlike the contemporary industrial cities where large zones of factory development are pushed to the periphery of the city, in Paris, factories occupy the streets and squares of the centre, neighbouring residential and cultural buildings in a symbiotic way. As these factories have ceased operation, their large-span open spaces have provided a network of creative opportunities that have been widely exploited in the last two decades.

In fact, it was the resurrection of the "forgotten" industries of the nineteenth century that distinguished Paris as a creative centre to Walter Benjamin in the 1920s. Benjamin drew from Giedion[13] a fascination with "outmoded" constructions and especially those of the nineteenth century that embodied both the emergence of technologies such as iron, as well as their historical supersession. These themes had also engaged Giedion in the same period.[14] For Benjamin, the importance of surrealism as a cultural and creative phenomenon was in these exact technologies, giving form to a species of modernism that was firmly anchored in the previous century.

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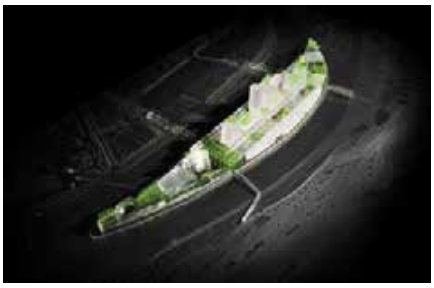
[11] Emile Zola, Germinal (London: Penguin, 1988), p. 31.

[12] This is recounted in: Alistair Horne, Seven Ages of Paris (New York: Vintage, 2004).

[13] See, for instance: Hilde Heynen, *Architecture and Modernity: A Critique* (London: The MIT Press, 1999).

[14] Siegfried Giedion, Building in France: Building in Iron—Building in Ferro-Concrete, trans. J. Duncan Berry (Los Angeles: The Getty Centre for the Study of Art and the Humanities, 1995).



Jean Nouvel, Isle Seguin (2004-2014)

As Benjamin argued, surrealism was an avant-garde not of the *new*, but of the *old*, radically repositioning the outmoded objects of industrial life in opposition to technology and the rampant consumer fetishism that had continually absorbed increasing percentages of the visual landscape.[15] Illustrating this in his essay on surrealism, Benjamin argued

> [surrealism] was the first to perceive the revolutionary energies that appear in the "outmoded"—in the first iron constructions, the first factory buildings, the earliest photos, objects that have begun to be extinct, grand pianos, the dresses of five years ago, fashionable restaurants when the vogue has begun to ebb from them. The relation of these things to revolution—no one can have a more exact concept of it than these authors. No one before these visionaries and augurs perceived how destitution—not only social, but architectonic, the poverty of interiors, enslaved and enslaving objects—can suddenly be transformed into revolutionary nihilism.[16]

Similarly, Colin Rowe and Fred Koetter drew attention to the "instruments of nostalgia" (embodied in the modern factory) in the appendix to their work on *Collage Cities*, recognising the same radicalism and idiosyncratic morphology of industrial sites that appealed to the avant-garde.[17]

No industrial site is more significant, in this regard, than the Isle Seguin, which is the decommissioned ruin of the former Renault Factory, lying in the middle of the Seine as it weaves through the western suburbs of Paris, close to the area known as Boulogne-Billancourt. Few industrial plants occupy a site as evocative and central, sitting on a wedge shaped island connected, on both sides, by bridges. When Jean Nouvel undertook the redevelopment of the Ile Seguin in 2004, his stated intention was to "recreate" the memory and allure of the industrial heritage that had been central to the island's urban history since the construction of the first factory on the site in 1919. Ironically, Nouvel had earlier protested the removal of the existing buildings on the site in the early 1990s, when the factory was decommissioned and the built traces were controversially cleared.

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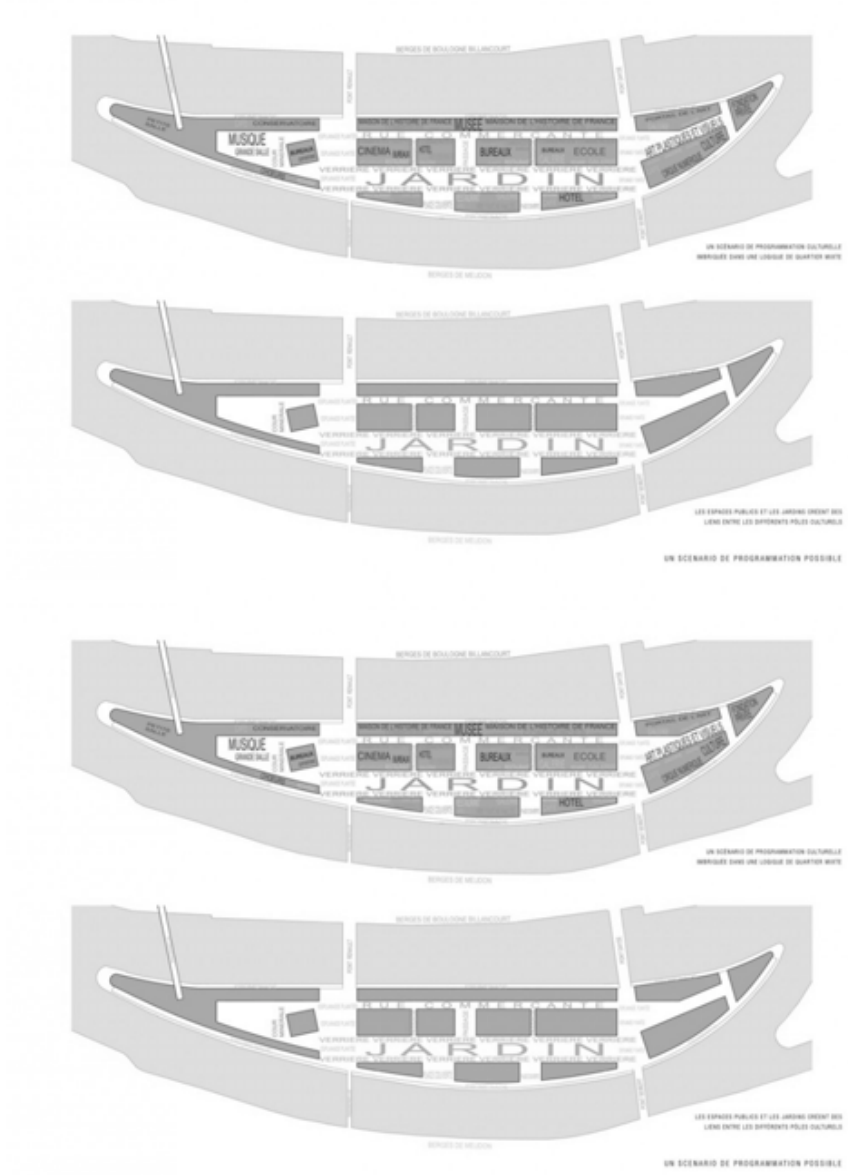
[15] Walter Benjamin, "Surrealism: the last snapshot of the European intelligentsia," in *Reflections: Essays, Aphorisms, Autobiographical Writings*, trans. Edmund Jephcott (New York: Schocken Books, 1978), p. 192.

[16] Walter Benjamin, "Surrealism: The Last Snapshot of the European Intelligentsia" in *Reflections,* p. 230.

[17] Colin Rowe and Fred Koetter, Collage Cities (Cambridge, Mass.: The MIT Press, 1984)



Jean Nouvel, Isle Seguin (2004-2014)

Nouvel's response was to both the architectural legacy and its historical resonances, referring specifically to the role the factory played in the worker movement in France, and especially in the 1968 riots. The urge to resurrect the prior "memories' of the site underlines a critical and shifting paradigm in late Modernism, where the historical traces of the late nineteenth and early twentieth century are not only revered by contemporary architectural discourse, but to an even greater extent, pressured by the broader forces of urban development and capital investment. This can be contrasted with, for instance, Kenneth Frampton's 1976 bleak critique of the Kalmar Volvo Plant in Sweden, which positioned the modern factory alongside familiar North American freeway typologies such as the bowling alley and shopping centre: characteristic of a "paradigm of the 'non-place urban realm'"[18] That contemporary architects are now both arguing for, and seeking to emulate industrial landscapes invites important questions in regard to architectural theory.

The example of the Isle Seguin is only one of a number of contemporary examples in Paris where the erasure of urban morphologies has resulted in a "nostalgic" response to the spatial conditions of industry, reprogrammed as culturally innovative urban centres. Between the poles of nostalgia and modernism lies a fertile and undervalued "blind spot" in contemporary architecture that is critical to both reclaiming and invigorating the "outmoded" territories of capitalism and the industrial revolution at large.

One of the most dramatic collisions in Paris between the industrial and the romantic notions of the city occurs, not on the islands of the Seine, but along its edges. While the central edges of the river—along the banks of the Louvre and the Invalides and across from Notre Dame Cathedral—are lined with the curated and generously-treed boulevards that embody the "strolling" pedestrian network of central Paris, the eastern and western suburbs of the city become increasingly less pedestrian friendly and are, in a number of cases, dominated by concrete plants. As the Seine winds through the suburbs of Bercy and St Cloud, the edges are dominated not by strolling pedestrians, but the demands of large scale concrete manufacture.

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[18] Frampton, Kenneth. "Il Case Volvo". Lotus 12 (1976): 16-41; translated and reprinted as: Kenneth Frampton, "The Volvo Case", Work, Labour, Architecture (London: Phaidon, 1998), pp. 64-75.

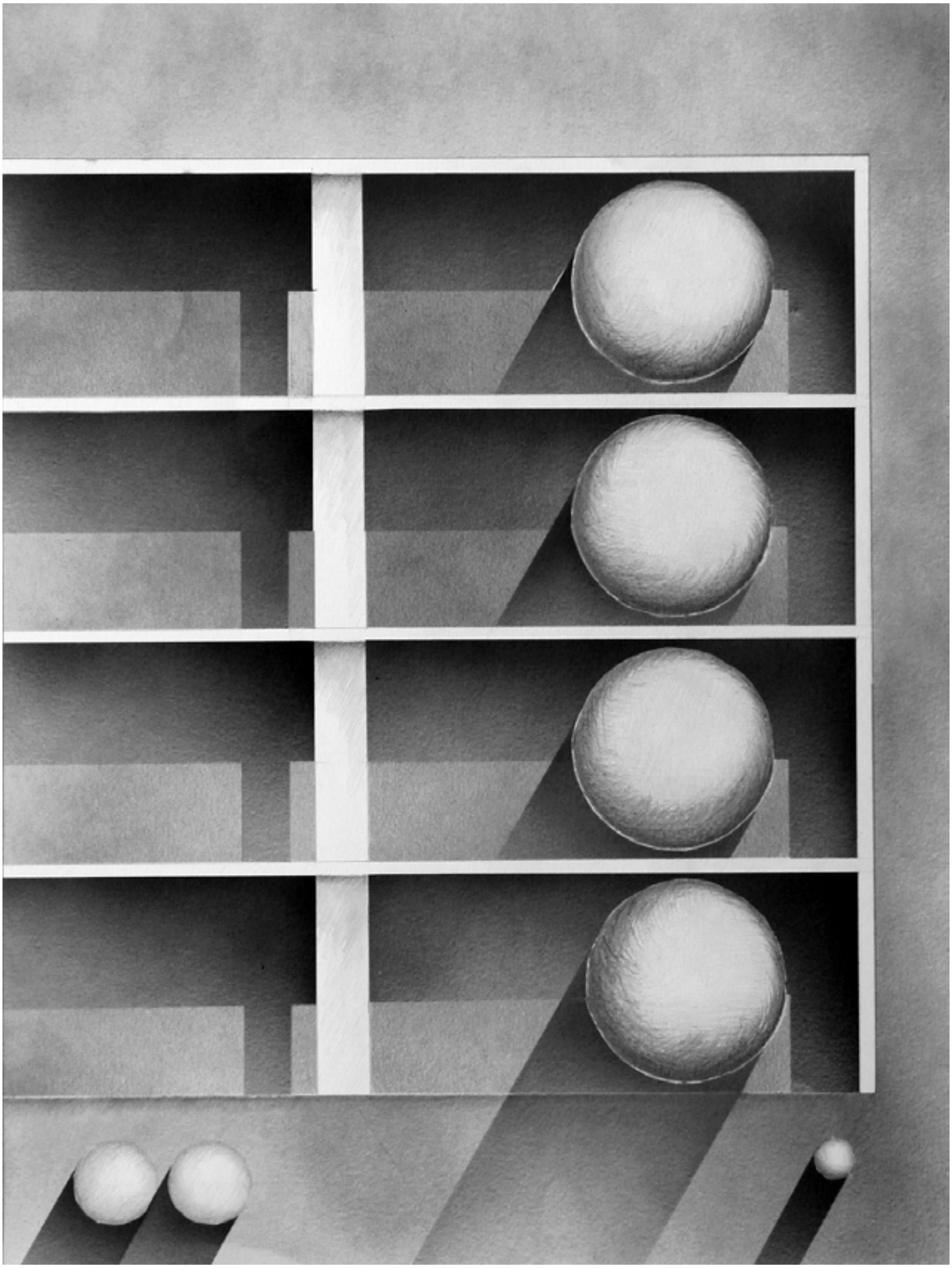
Bercy, Paris (2012), author

Bercy, Paris (2012), author

St Cloud, Paris (2012), author

The role of these liminal zones in Paris is unique to this city. Sandwiched, as they are, between busy arterial roads and the river, they also have to manage complex circulatory and organisational networks in order for the army of concrete trucks to be able to arrive, load and then depart in a narrow and constrained space, sitting several stories below the level of the access roads. What is novel within this ambiguous industrial zone is the role of pedestrians, who have access to this industrial boulevard in a number of places and can traverse the entire edge of the Seine, without disrupting the operation of the factories, or the passage of trucks in and out. In the Bercy edge of the Seine, walkways have been constructed over the plants, with explanatory signs, to encourage a dialogue between pedestrians and industry. In a suburb dominated by large shopping centres and freeways, this is an unusual concession to pedestrian traffic and typical of the way in which industrial elements are integrated with the city more generally.

The phenomena of this working industrial edge, interspliced with pedestrian and cyclist activity brings into focus the “outmoded” collisions that fascinated both Benjamin and Giedion. If the Isle Seguin embodies the yearning for an industrial heritage within contemporary Paris, then Bercy and St Cloud represent the forgotten suburbs of industrialisation, where the romantic ideal of the nineteenth century metropolis intersect with the demands of a contemporary and robust industrial economy. These zones are the embodiment of an urban, industrial edge which mediates the requirements of both production and recreation. It is the intersection between the aesthetic of industry, and the romance of a city.

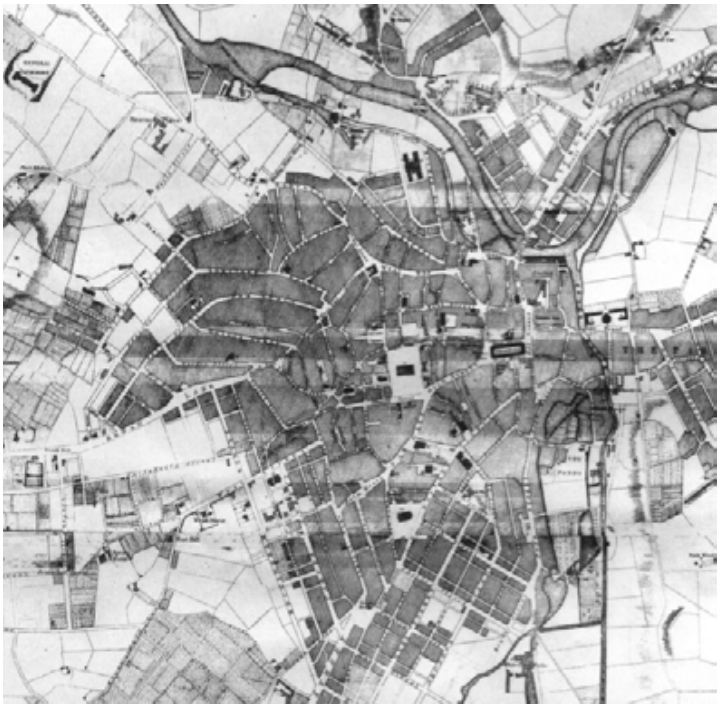


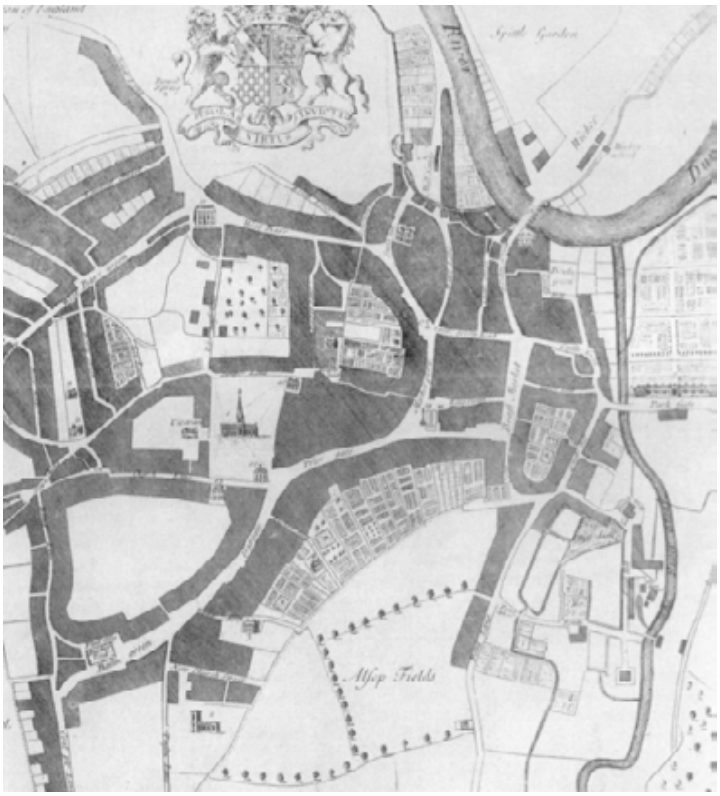
Michael Chapman, *Paris* (2012)

Bercy, Paris (2012), author

2. Sheffield

If Paris is a city of romance and sophistication, then Sheffield is a city of pragmatism and craft. Where Paris is a city that merges seamlessly with its industrial origins, Sheffield has a nostalgic relationship to industry and its preservation which distances it from its past as an isolated relic of the present day. More than any of the cities visited in this study, Sheffield has a dislocated relationship to its industrial heritage, carefully preserved in quality museums but no longer a living culture that permeates the city. Modern Sheffield is a student town, typical of a number of mid-size midland towns, where the centre is now dominated by global franchises and the periphery flanked by international hotels eagerly competing for tourist and conference trade. The rejuvenation of Sheffield in the 1990s saw a dramatic recreation of its built environment as a number of high profile international architects were engaged to replenish the historical fabric of the city and facilitate its rebirth as a modern and cultural regional centre. The majority of the manufacturing trades have left Sheffield and while there is a rich fabric of light industry across the outer suburbs of the city, the manufacturing centre has been dismantled and it is a shadow of the steel fabrication epicentre that it was throughout the nineteenth century.





Historical maps of Sheffield showing agricultural plots and city gardens.

This notwithstanding, there is an intricacy to the industrial morphology of Sheffield that sees a negotiation between the scale of the factory and the traditional worker's house, creating a unique hybrid of built forms. Unlike many industrial cities, Sheffield has a complex and highly organic network of roads and streets with no evidence of a grid or the kind of rationalising axes that dominate many of the production centres that lie closer to the coast. As the eminent anthropologist, Robert Rudmose Brown revealed, in his 1936 study of the city,

> [t]he position of Sheffield is exceptional among industrial towns. It shows the apparent anomaly of being the sixth town in numbers in Great Britain in spite of its lying in a nook of the hills, a kind of cul-de-sac on the natural route to nowhere, and almost as far removed from the sea as is possible in this small island. To the west of it, to within the present city boundary, stretch the almost uninhabited moorlands of the Pennies, to the north lies country nearly as wild and unpeopled, to the south is upland country and only on the east and north-east is there any lowland link with the rest of England through well-peopled lands.[19]

As Rudmose Brown illustrates, it was the unusual combination of rich coal seams to the north, east and west of the city, as well as the expansive network of streams and tributaries that connect the surrounding hills with the rest of England that were central to the development of Sheffield and, equally, its rapid expansion during the Industrial Revolution. While there is clear evidence of iron being mined in the region from as early as 1160, Rudmose Brown speculates that the Romans had most likely discovered iron in the region more than a millennium earlier.[20] By the 12th Century, Sheffield was already producing cutlery and, by the 14th Century, had become famous for the production of knives. Throughout the second half of the 18th Century, coal replaced timber as the fuel for iron ore reduction, due to its ready availability in the surrounding seams. By the start of the 19th century, large scale steel manufacture was already occurring at the Sheaf plant, and the discovery of the Bessemer conversion process in the middle of that century gave the city a virtual monopoly in steel production, coinciding with an international demand for steel products and higher standards of engineering.[21]

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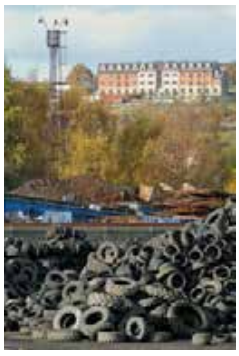
[19] R. N. Rudmose Brown, "Sheffield: Its Rise and Growth", *Geography* 21 3 (September, 1936): 175.

[20] R. N. Rudmose Brown, "Sheffield: Its Rise and Growth", *Geography* 21 3 (September, 1936): 178.

[21] For the urban implications of this, see: Eric Hopkins, Industrialisation and Society: A Social History, 1831-1951 (London: Routledge, 2000).

Sheffield, United Kingdom (2012) author



Sheffield, United Kingdom (2012) author

Sheffield, United Kingdom (2012) author

The river, that swathes a path through the dramatic landscape upon which the city is built, is now partially buried; traced, by vaulted tunnels that traverse the roads in and out of the city. Tracing the river, now partially concealed, leads to Kelham Island, which is the historical centre of industrialisation in Sheffield. Dominated by the museum which now houses the original Bessemer Convertor,[22] the island is now a mixture of quaint historical town-houses, pubs and craft industries. Historically, this low lying and broad section of the River Don attracted the heavy industries of steel production due to the requirement for transport and connectivity. The silver plating and tool industries occupied the narrower and winding sections of the river on the outskirts of the city where transport was less of an issue. While the heavy industries are no longer operating, many of these secondary industries still exist in some form or another.[23]

Cut off from the primary river, Kelham Island is now an island within the concrete 1960s labyrinth of central Sheffield. Moving away from the centre, the river becomes an artery that links the outer suburbs of the city, permeated by nature and industry and linking the "Five Wiers" that are encountered radiating outwards from the city centre. The light industrial factories that dominate the edge of this river are suburban in scale, laced with the patina of weathered steel and linked in a loose network of collaborative trades and industry that connects the outer suburbs of the city with its working class heritage. Interestingly, Sheffield is one of the first regions where collective urban allotment gardens developed in the 1700s, managed collectively by workers through flexible lease arrangements.[24] This collective use of space for gardens, pixelated across the industrial landscape, is still characteristic of the city, which retains a connection with nature not typical of industrial centres, and especially those in the north of England. As Kelham Island has been increasingly incorporated into the urban matrix of the modern city, the river retains a link to the rural and agricultural morphology of the city and the network of arteries that connect production and distribution throughout the city's history.

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[22] See: Geoffrey Tweedale, "Steel Metropolis: A View of Sheffield Industry at Kelham Island Industrial Museum," Technology and Culture 33 2 (April 1992): 328-335.

[23] For an overview, see: David Hey, *A History of Sheffield* (Lancaster: Carnegie, 1998).

[24] See: N. Flavell, "Urban Allotment Gardens in the Eighteenth Century: The Case of Sheffield", The Agricultural History Review 51 1 (2003): 95-106.

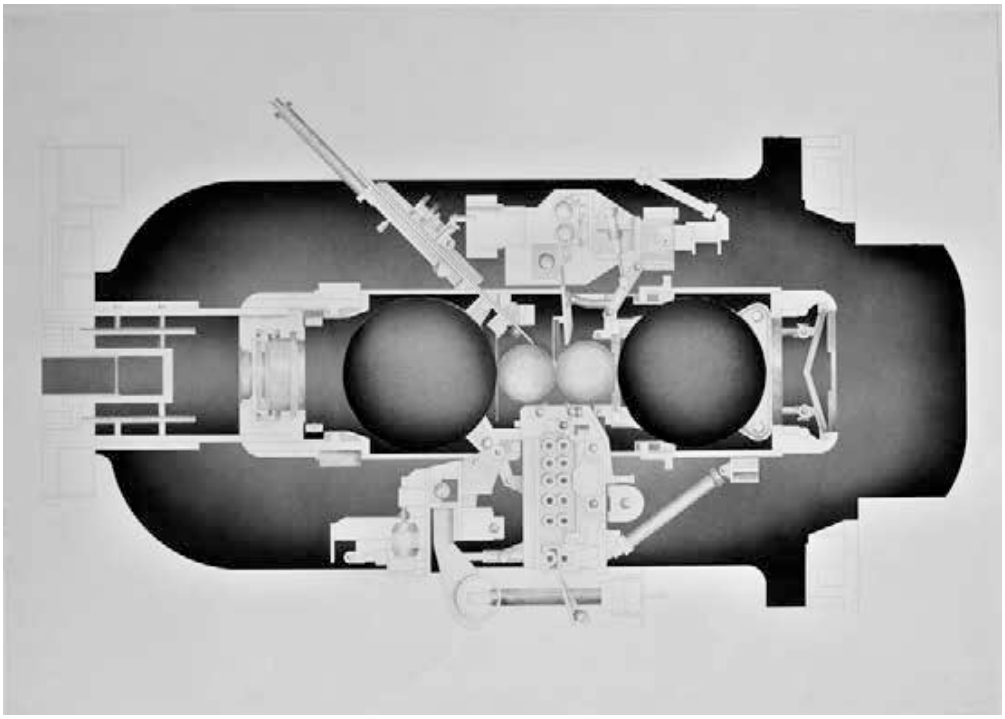
Contemporary architecture, Sheffield, (1955-2012)

Although there is still a strategic marketing advantage for steel-based companies to retain some presence within the city, many of the industrial trades have moved further afield and at the same time as it has dismantled the manufacturing and steel industries, these have been replaced by tourism and education, as the predominant employers within the city. If the ruins of industrialisation have created a dramatic built legacy across the fabric of Paris, in Sheffield, these histories are discovered through fragments, buried deep beneath the morphology of a vibrant and contemporary regional centre where the traces of industry have been largely mythologised.[25]

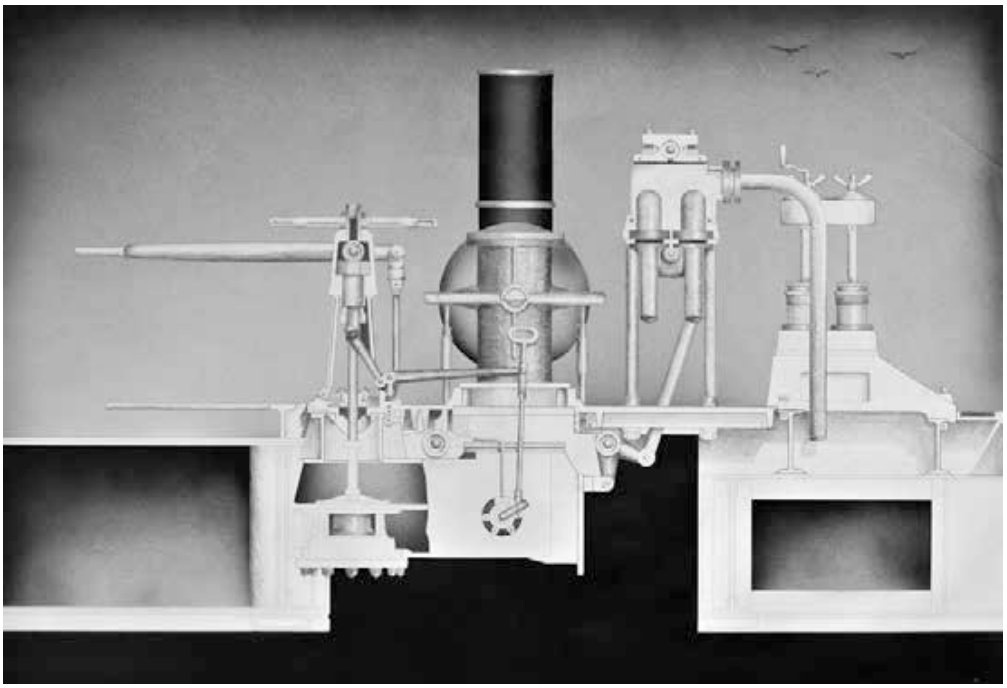
The city has, in the post-war period, been host to a number of experiments in urban thinking, since the high-profile arrival of brutalism, embodied, most succinctly in the vast Park Hill redevelopment which set a new trend in socially based urban housing in the United Kingdom. The vast concrete labyrinth has been under renovation since 2009. In the 1980s, a number of groups were formed to plan a strategic vision for Sheffield,[26] an impetus that culminated in a number of important new civic and cultural buildings being commissioned in the early 1990s, centred predominantly on the university. This included internationally recognised architects such as Sauerbruch and Hutton and brought widespread attention to the city within the architectural press. The legacy of these brutalist and new modernist languages in the centre of Sheffield has been to intensify the spatial experience of the city into satellite buildings which, for a large part, provide visual and urban markers that give character to the city. This has, in some ways, blurred the predominance of the original historical-industrial morphology of the town that has now become fragmented and, quite often, supressed. As the focus has shifted towards the car, and the train and vehicular networks enveloping the city centre have expanded, the peripheral rings of Sheffield, tied to the original river and agricultural topographies, provide a clear distinction between the historical structure of an industrial city, and the spatial intensification of the inner city, marking a new paradigm in late-capitalist urban design of the 1990s. The collision between these two extremes is most dramatic at Kelham Island itself, which has become a tourist "museum" to the city's origins, rather than a working cog within its future. Its island status, despite the depletion of the river network, is retained through this paradox.

[25] For an overview of the transformations in Sheffield's morphology in the 1960s, as well as ambitions for its masterplan in the period, see the report: Sheffield Town Planning Committee, *Sheffield: Emerging City* (City of Sheffield: 1969).

[26] See: Richard Field, "Sheffield: A Case Study" RSA Journal, 138 5405 (April 1990): 343-53.



Michael Chapman, *Pig* 2013 (700 x 1000mm, graphite and ink on paper)



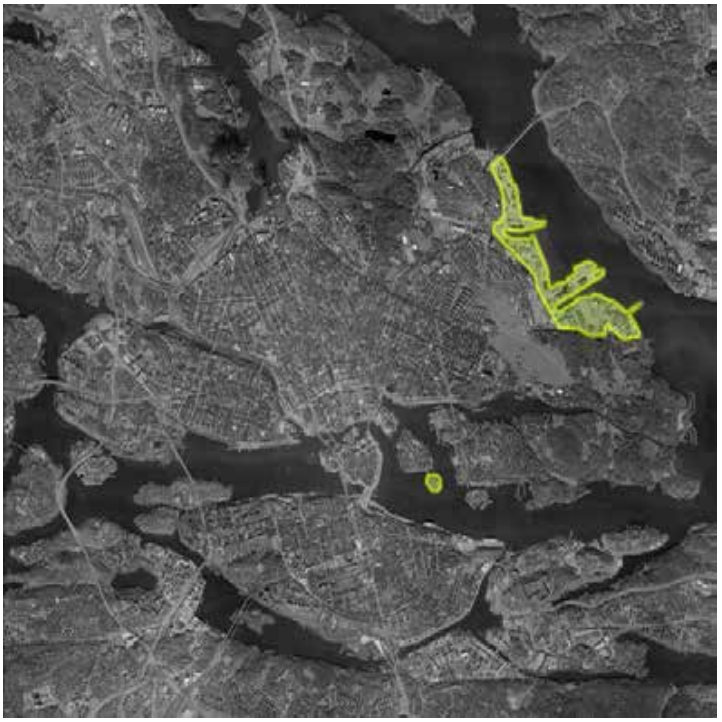
Michael Chapman, *Effluenza* (Mott Works) 2013 (700 x 1000mm, graphite and ink on paper)

What has distinguished Sheffield from other industrial centres in Europe is the dramatic nature of its rebranding as a contemporary and regional tourist and educational centre, with links to its industrial heritage, rather than a devotion to it. The transformation of the steel making industry, which has seen a dramatic reduction in the labour and skill required in steel production has necessitated this transformation in many steel-making centres of the nineteenth century. Sheffield, however, has adopted a deliberate strategy of redevelopment which, starting in the mid 1980s, has consciously recalibrated the city's tourist brand, and invited a range of international influences to permeate the traditional class-based identity of the area.

It is worth noting that Marx's primary analysis of capitalism was based on his observation of northern English industrialisation and the class structures and social demarcations that became central to his critique were all witnessed in the 19th Century cities like Sheffield. What is particular to Sheffield, as opposed to other northern industrial cities, is the role of the commodity, where steel is transformed, through labour and craft, into a product that has value beyond the cost of the material. Significantly, labour has contributed strongly to the urban history of Sheffield, and is still the subject of a large amount of academic research. Massimiliano Mollona, for instance, has looked at the role of labour in shaping both the identity and morphology of the city, particularly in the context of its post-industrial future.[27]

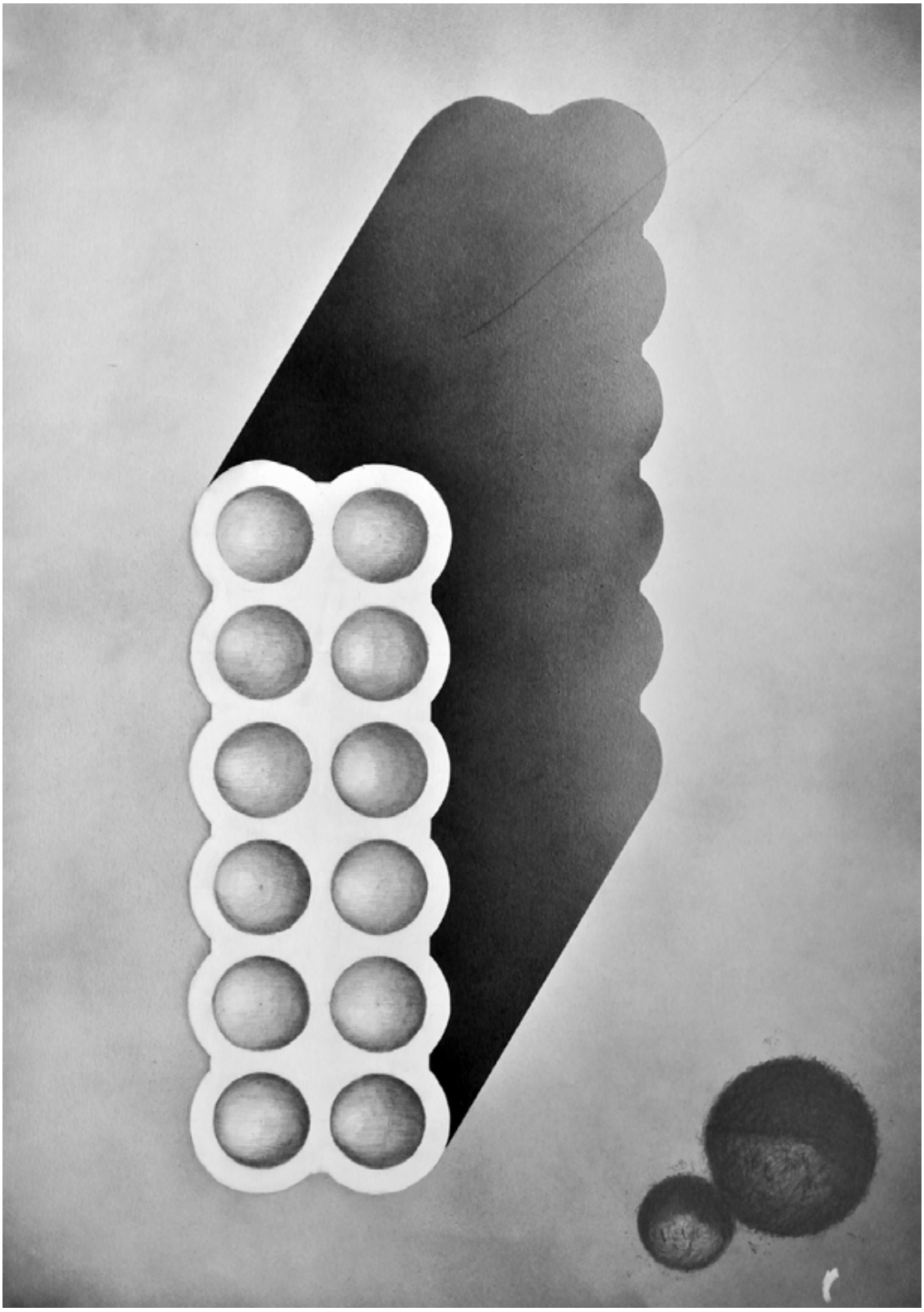
If the ruins of industrialisation have created a dramatic built legacy across the fabric of Paris, in Sheffield, these histories are discovered through fragments, buried deep beneath the morphology of a vibrant and contemporary regional centre. Although there is still a strategic marketing advantage for steel-based companies to retain some presence within the city, many of the industrial trades have moved further afield and at the same time as it has dismantled the manufacturing and steel industries, these have been replaced by tourism and education, as the predominant employers within the city. The transformation of Sheffield in the 1990s as a "post-industrial" regional city, with a distant relationship to its industrial past, was as dramatic as its formative recoding as an industrial power house two-hundred years prior in the wake of the industrial revolution.

[27] Massimiliano Mollona, "Factory, Family and Neighbourhood: The Political Economy of Informal Labour in Sheffield" *The Journal of the Royal Anthropological Institute* **11** 3 (September 2005), 527-548.



3. Stockholm

Stockholm is a dramatic city, linking a series of tightly knitted islands together amongst an unfolding ribbon of parkland and nature. It is also an industrial city, tracing its connections with ship-building and manufacture to the early medieval period. While many of the original ship-building areas are no longer functional, it still retains its role as the primary industrial centre of Sweden, and a critical cog in the distribution of products into and out of the powerful Scandinavian economy. The organisation of the city sees the centre divided across three key peninsulas, where the cultural and commercial centre of urban life is both connected to, and divided by, a thriving body of water. Typical of many harbour cities, the avenues and infrastructure of the city extend seamlessly into the water so that the dramatic topography allows for continuous glimpses of the harbour and its maritime activity. Strategic infrastructure occupies the ridges of the city, while communities and local identities are formed in the valleys and peninsulas extending down to the harbour, in a manner reminiscent of Sydney, in Australia. The emergence of these peninsulas creates destinations that, while historically industrial, have, in the last decades, been converted to social and cultural uses. This rebranding of industrial zones and their reintegration with the city makes Stockholm a pervasive model in post-industrial place-making.



Michael Chapman, Stockholm (2012)

The working industrial zones of Stockholm predominantly occupy the eastern edge of the city, separated, for the most part, from the urban core by a generous ribbon of nature and publicly accessible parkland.[28] With the dramatic increase in cruise ship tourism to the region in the last two decades, this zone is also now the entry point to the city for many visitors and has, as such, attracted a number of more commercial and public functions, interspliced with the working harbour and its imposing industrial scale. The cruise liners arrive and depart amongst a sea of shipping containers that extend in both directions broken only by narrow inlets from which containers are loaded. The pattern of peaks and peninsulas that creates the rhythmic ribbons that structure the city effectively inoculates this Eastern industrial edge and creates a dramatic contrast between the horizontal morphology of production, and the layered natural topography that is its immediate backdrop.

The industrial band of shipping and container ports, known as Frihamnen, is effectively severed from the main urban centre by a ribbon of parkland and untamed natural forest, bounded by an arterial road that links the area with the green Eastern suburbs and sweeps around to eventually link to the CBD. Isolated pockets of industrial activity, such as the tiny island of Beckholmen (a little peninsula jutting out from the northern edge of the harbour) or the centrally located Skeppsholmen, remain connected to the city, but, for the most part, the traditional industrial zone of Frihahnen is an isolated and distinct spatial and morphological element that has, over time, grown away from the city rather than towards it.

The islands of Beckholmen and Skeppsholmen provide an interesting and important contrast to this, having, in their post-industrial reinvention, been assimilated with the cultural and morphological forces of the city. The island of Skeppsholmen is now home to the impressive international collection of the Moderna Museet (one of the premium art collections in the world). It also houses the Museum of Far Eastern Antiquities. Directly to the east of Skeppsholmen on the mainland is the Vasa museum, where the salvaged remnants of the 16th Century Vasa are now displayed, as well as a history of ship-building in Scandinavia. Amongst others, Sverre Fehn submitted a dramatic scheme for this project.

[28] see: Bengt Isling, “A Typology for the Parks of Sweden”, Garden History, 32 2 (Winter 2004), pp. 248-260.

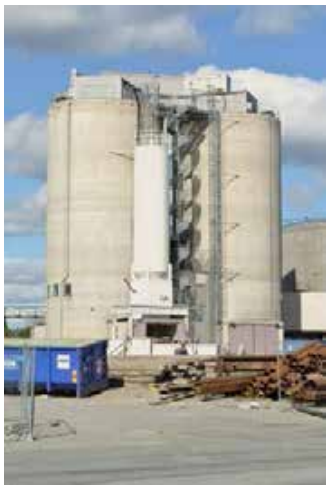
Economic and geographic Stockholm, Sweden (1929 and 1965)

Beckholmen is currently in a state of redevelopment but creates an interesting precedent for urban and industrial consolidation. The site of extensive contamination, a large–scale remediation process is currently under way and then the island will be redeveloped with a combination of artists workshops, maritime industries, ship-building and public amenity. This intersection of public and industrial functions creates a unique industrial typology and one that is at the heart of Sweden's relationship to industry since the emergence of social democracy in the 1920s. Central to this model was the "humanisation" of industrial processes through the emergence of an innovative model of industrial production, where the worker and machine intertwined seamlessly as part of a broader social and urban agenda for the city.

This model of social democracy has left a number of tangible effects on the morphology of Stockholm, and particularly its relationship to industry.[29] The marrying of industrial zones with parkland and recreational spaces is endemic to Scandinavian development in the interwar period and a recognisable characteristic of Aalto's Finnish industrial projects, and especially his projects at Varkhaus and Sunila from the late 1930s. Central to this was the humanising of the worker away from the mechanical rationalising of the production line, in a way that supported a reconnection with nature and more time for family and recreational activities. The dramatic demarcation of Stockholm, and its various patterns of natural and recreational fringes linking industrial and commercial centres had a direct relationship to this model of social industrialisation, and is central to the modernisation of the Scandinavian economy more generally.[30]

[29] For a more complete overview, see: Tony Griffiths, *Stockholm: A Cultural History* (Oxford: Oxford University Press, 2009).

[30] See: Sten de Greer, "Greater Stockholm: A Geographical Interpretation", Geographical Review 13 4 (1923), 497-506.



Stockholm, Sweden (2012)

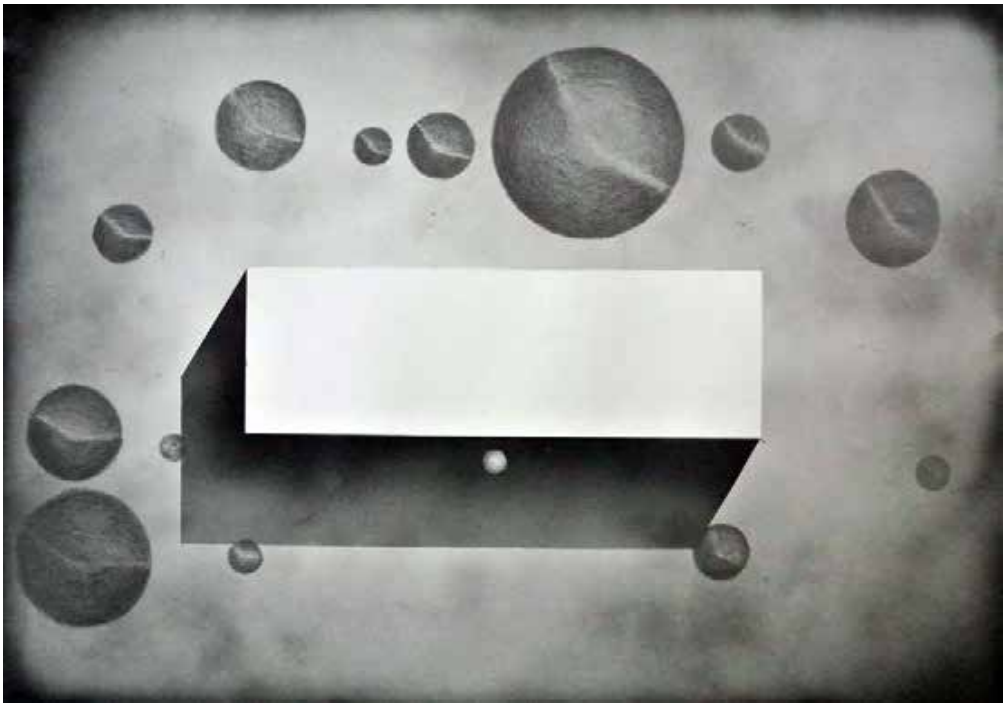
Nowhere is this social-democratic humanisation of industry more apparent than in the example of the Volvo Plant in Kalmar, Sweden, which provides a generic and socially-structured model through which industrialization has influenced and transformed architecture and its organization. Kalmar is a provincial Swedish industrial city 400km to the south of Stockholm. The Volvo Plant in Kalmar has attracted a relatively broad range of scholarly interest from a range of disciplines[31] but its relevance to the discourse of architecture is primarily a result of the influential essay, *The Volvo Case,* by leading critic and historian Kenneth Frampton (1998).[32]

Within this essay, Frampton draws attention to the inherent "socializing" innovations within Swedish society that manifested in the transformation of the linear production line in the Volvo plant. Moreover, he mounts a sustained argument for the Volvo factory as a "model" of urbanism within an accelerating modern economy. Central to Frampton's reading is the factory itself, which disrupts the linear production line by allowing individuals to become experts in all stages of the production of cars. This is not to increase productivity but, on the contrary, to increase worker satisfaction and engagement; factors that have lasting impacts on the sustainability of the industry and its future.

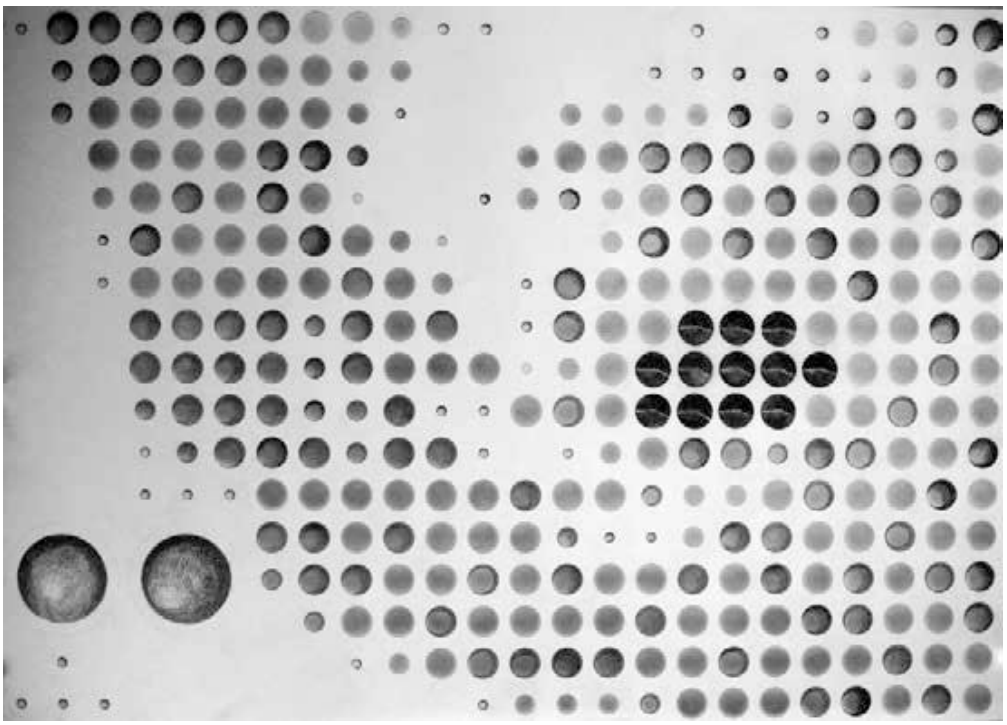
Launched in 1974, the Kalmar Plant was the first manufacturing works that varied from the Fordist model of production, originally grafted from Taylorist organizational principles in the 1920s. Giedion, whose work was outlined earlier in this report, was particularly critical of Fordist production techniques in his writing on the "organic factory" as they reduced both the independence and experience of the worker, effectively rendering them subservient to the machine. The robotic nature of production set out to turn humans into machines, eliminating inefficiency and requiring low-level and highly repetitive tasks to be undertaken for the duration of the working day. This left workers "tied" to the machine and effectively isolated by technology. For Frampton, the evolution of the Kalmar plant was indelibly linked to the social pressures created by the Paris riots of 1968 and the broader social and cultural transformations that were tearing at the seams of European society.

[31] See: Ake Sandberg, Enriching Production: Perspectives on Volvo's Uvedalla plant (Aldershot: Avebury, 2007)

[32] Kenneth Frampton, "Il Case Volvo". Lotus 12 (1976): 16-41; translated and reprinted as: Kenneth Frampton, "The Volvo Case", Work, Labour, Architecture (London: Phaidon, 1998), pp. 64-75.



Michael Chapman, *Equilibrium* (2013)



Michael Chapman, *Surplus* (2013)

Stockholm, Sweden (2012) author

The monotonous nature of the production line and the low-level of esteem or pride that the workers had in their jobs led to high absenteeism. There was concern, as Frampton observes, not only in the loss of productivity but also in the "general decline in the quality of the product". As Frampton writes:

> [b]y 1970 Volvo had been made forcibly aware, through a heavy increase in absenteeism, of the intrinsically negative aspects of repetitive "on-line" production. Above all else the company had become sensitive not only to days lost through absenteeism but also to the general decline in the quality of the product. The 1968 student revolt had the effect of bringing the half repressed discontent of the labour force into the open and Volvo, like many other Swedish industries, experienced a series of wildcat strikes. Naturally Swedish industrial management became extremely concerned and new parameters such as working hours, work rhythm, social facilities and the quality of the working environment were at once admitted into the field of labour relations. A delegation from Volvo was dispatched to the Norwegian Works Research Centre at Oslo and at the end of 1969 a decision was made to delegate a certain range of decisions to the individual productive unit.[33]

The primary agenda of the plant in Kalmar was to dispense with the individual production lines and establish a model of production where small teams would assemble cars from start to finish. This increased the level of pride and satisfaction that a worker took in their job and enabled workers to develop a broader range of skills and knowledge. This was enabled, according to Frampton, by the redesign of the factory model along a hexagonal plan, which allowed a clustering of workgroups rather than a linear allocation of labour along an inflexible line. Developed by the engineer Torgny Karlsson and the architect Gerhard Goehle, the model set out to increase horizontal and vertical interconnections and eliminate the hierarchical nature of production. The line was broken down into 25 separate procedures through which the car moved through the plant in an anti-clockwise direction, governed by a central computer that controlled its transition through each of the clusters. The model separated the making of the car into two parallel procedures, executed simultaneously at the two levels of the factory.

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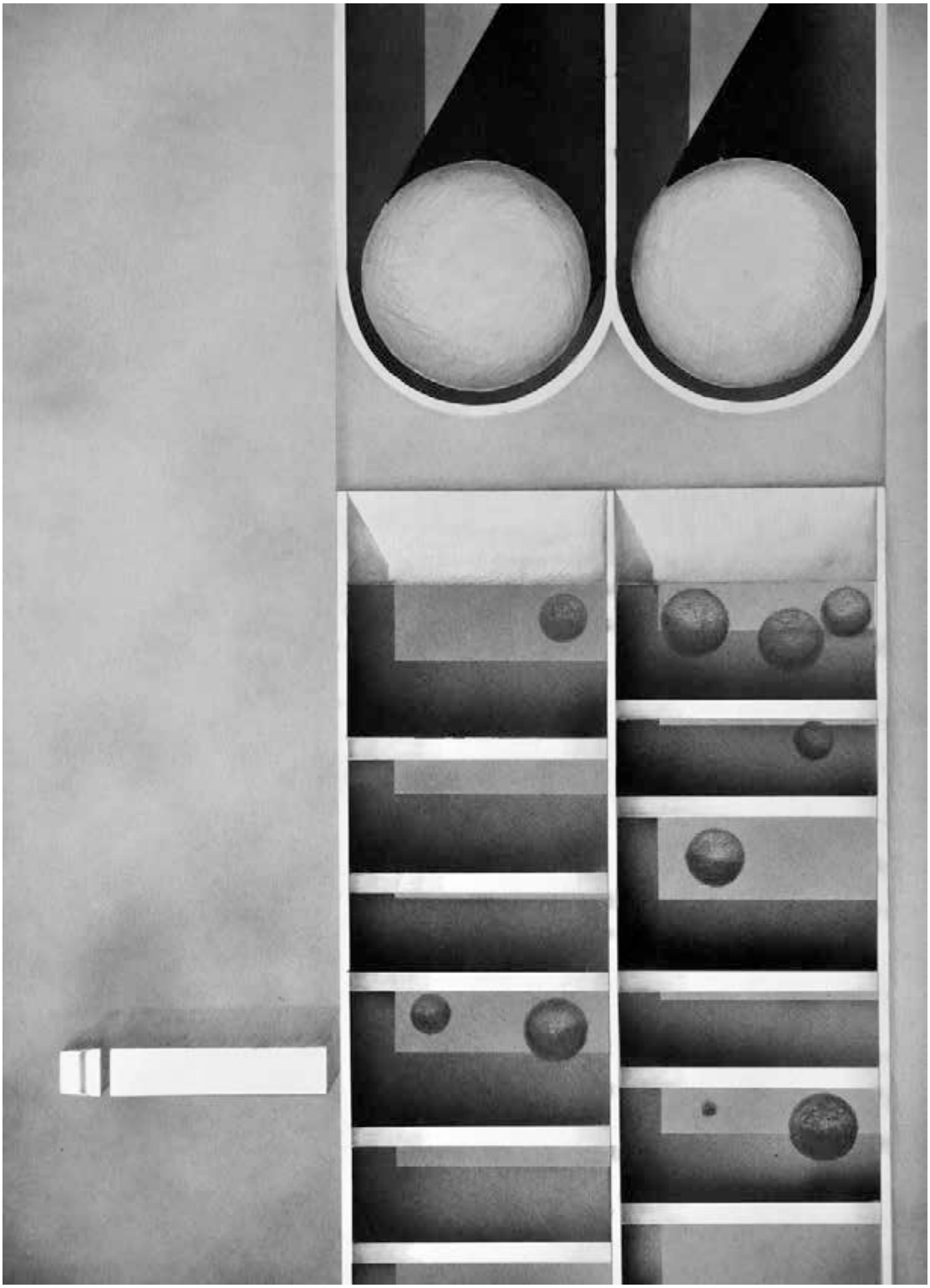
[33]Kenneth Frampton, "Il Case Volvo". Lotus 12 (1976): 16-41; translated and reprinted as: Kenneth Frampton, "The Volvo Case", Work, Labour, Architecture (London: Phaidon, 1998), p. 68.

The primary significance of Kalmar, in regard to architectural organization, has been in the relationship between culture and manufacture and specifically in regard to the aspects of production and the design product. Kalmar saw a re-distribution of production and a reconciliation between manufacture and place with an emphasis on the social and spatial conditions of production and, equally importantly, how they varied across cultures. In his historicisation of the factory at Kalmar, Frampton is sensitive to the nuances of place and region and, to a large extent, mirrors more recent research into the innovations of Kalmar, which have tended to oppose the unitary theory of "lean production" which has governed industrial organization in, for example, Japan. Lean production, as a theory, places the Japanese model of automotive fabrication as not only the leading model of efficiency and productivity in car design but, to a large extent, the only possible model in the current commercial environment. On the contrary, more recent discourse into the Swedish examples argues that not only are Kalmar and the later Uddevalla plants, innovative in a productive sense, but they are grafted to Swedish culture and values more generally and can not be easily transplanted to alternative products or cultures, in the way that Taylorist or Fordist models often were. In this sense, the lessons of industrialization suggest a manipulation of industrial principles to fit within an architectural context, establishing critical "cultures" of organization which, while industrial in character, are plastic enough to accommodate the complexities and politics that is a characteristic of architectural organization and the disciplinary constraints that belong to it.

Stockholm, with its gentle interweaving of cultural, natural and industrial functions is a working example of the deconstruction of working life within social democracy and the expansion of the urban realm to allow distinct separation between the isolated zones of work and play. As the inner city industrial functions have slowly died out, they have been rehabilitated through cultural activites that allow for a symbiotic relationship between outmoded skills and contemporary urbanity. In this sense, the city offers a remarkable model of post-industrialisation that compliments the dramatic topography of the city and allows for its continual reinvention and gentrification. This collaging is at the heart of the social-democracy that characterises the Sewdish approach to the city.

4. Gdansk

Gdansk is an ancient industrial city, and a strategic industrial port in the Twentieth Century for Germany, Russia, and now Poland. The city came to prominence in the late 1970s through the Solidarity (Solidarinosc) movement, which was a pivotal moment in the collapse of communism in the Eastern Bloc. The city remains one of the most important ship-building centres in Europe and has some of the most significant industrial heritage. It is also home to a vibrant art culture that has moved into a number of decaying industrial sites and operates symbiotically alongside the working industrial port. This cross-fertilisation of creative and productive industries gives the city a unique and dynamic demographic, also making it a centre for weekend tourism from nearby Germany and other parts of Europe. The quaint and beautifully scaled historic centre follows the banks of the river, which leads outwards to the industrial zones. The ship-building factories are immediately to the north of the historic centre, transforming into cargo, container and grain facilities leading to the Baltic Sea. The traces of the original walls and limits of the old city are still visible from within this expanding industrial landscape.



Michael Chapman, *Gdansk* (Refinery) (2013)

Gdansk, as well as its industrial pedigree, is a key political centre, and bastion of working class values and principles. In the late 1970s, the city became famous as the home of the solidarity movement,[34] that challenged Soviet exploitation of Polish workers and eventually led, in 1986, to the signing of an agreement with the Soviet Union that eventually handed Poland its autonomy. This action was instrumental in the collapse of the Eastern Bloc. The expansion of new Europe and the redefinition of national boundaries after the collapse of the Berlin Wall and redistribution of the Eastern Bloc marked a critical shift in the economic history of Europe. This was also the redescription of industrial infrastructures in these regions as once global (and ideological) systems of production fragmented to become satellite industries fuelled by regional and emerging economies with access to local, rather than international supply chains and limited natural resources or skills.

The rapid disintegration of communism left a vast bureaucratic infrastructure across eastern Europe which was not easily mobilised in the interests of capitalism, at least in the first decades. The downsizing of industry and redistribution of production left an array of derelict industrial buildings and landscapes, often centrally located and well connected locally and, via sea, to other parts of Europe. The relative scale and scope of these sites, and their immersion within dysfunctional post-industrial landscapes, meant that while they were suited to development and intervention there was insufficient resources or capital to even maintain these buildings, and they quickly fell into dereliction and abandonment. The embedded industries which surrounded these sites were essential to the depressed economy and so the highly complex tapestry of production and dereliction became a paradigm on urban waterfront sites throughout the 1990s. That artists would both occupy and reinvent these derelict spaces is a paradigm that has accompanied economic depressions and, to a large extent, connected the visual arts with the cycles of economic recession.

[34] For an overview, see: Daniel Singer, The Road to Gdansk: Poland and the USSR (New York: Monthly Review Press, 1981).

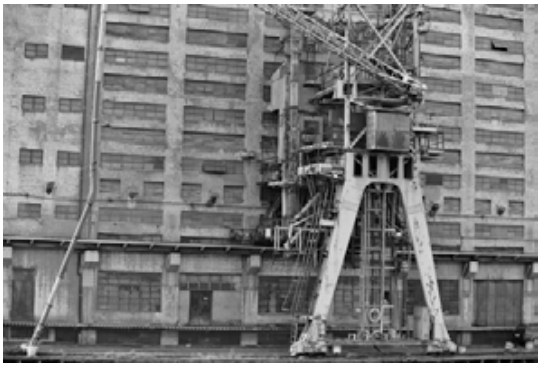

mibau

Gdansk is an important industrial centre in modern Poland and a city that has a significant historical legacy.[35] Gdansk has been a historically contested site, alternating between Polish, German and independent governance over its thousand-year history and it was the Nazi occupation of the post office in Gdansk in August 1939 that triggered the Second World War. The important strategic assets of Gdansk, and its relationship to the coal and ship-building industries, rendered it an important hub in the post war Soviet Union where the scale and speed of industrial production were dramatically expanded and its economic significance grew.

The solidarity movement was a significant paradigm in the formation of modern Poland and the gradual emergence of the Solidarnosc party in the shipyards of Gdansk was cathartic, and its significance has not been lost to the city several decades on. Solidarnosc has become an important identifying element within the contemporary tourist marketing of Gdansk, and the logo of the movement has been wantonly applied to t-shirts, postcards, pencils, bottle openers and an array of other memorabilia and souvenirs sold and disseminated at a host of tourist sites throughout the city. While the original wall where the strikes took place still stands, it exists as part of a network of signifying elements in the city that maintain and expand the historical role of the mass-labour movement. The subterranean Solidarity museum, which provides a detailed historical and visual account of the movement, is being complemented by a spectacular and well-funded contemporary museum that sits behind the existing wall and is intended to further connect the city with the oppositional struggles against communism, despite the irony associated with the appropriation of these ideas within the late-Capitalist, and tourist-centric, market place. The new building assumes an architectural language of the spectacle, with tilted walls and dramatic cantilevers that contrast—whether deliberately or not—with the utilitarian functionalism of the shipyards that surround it.

[35] For the definitive history, see: James A. Michener, Poland (London: Secker and Warburg, 1983).

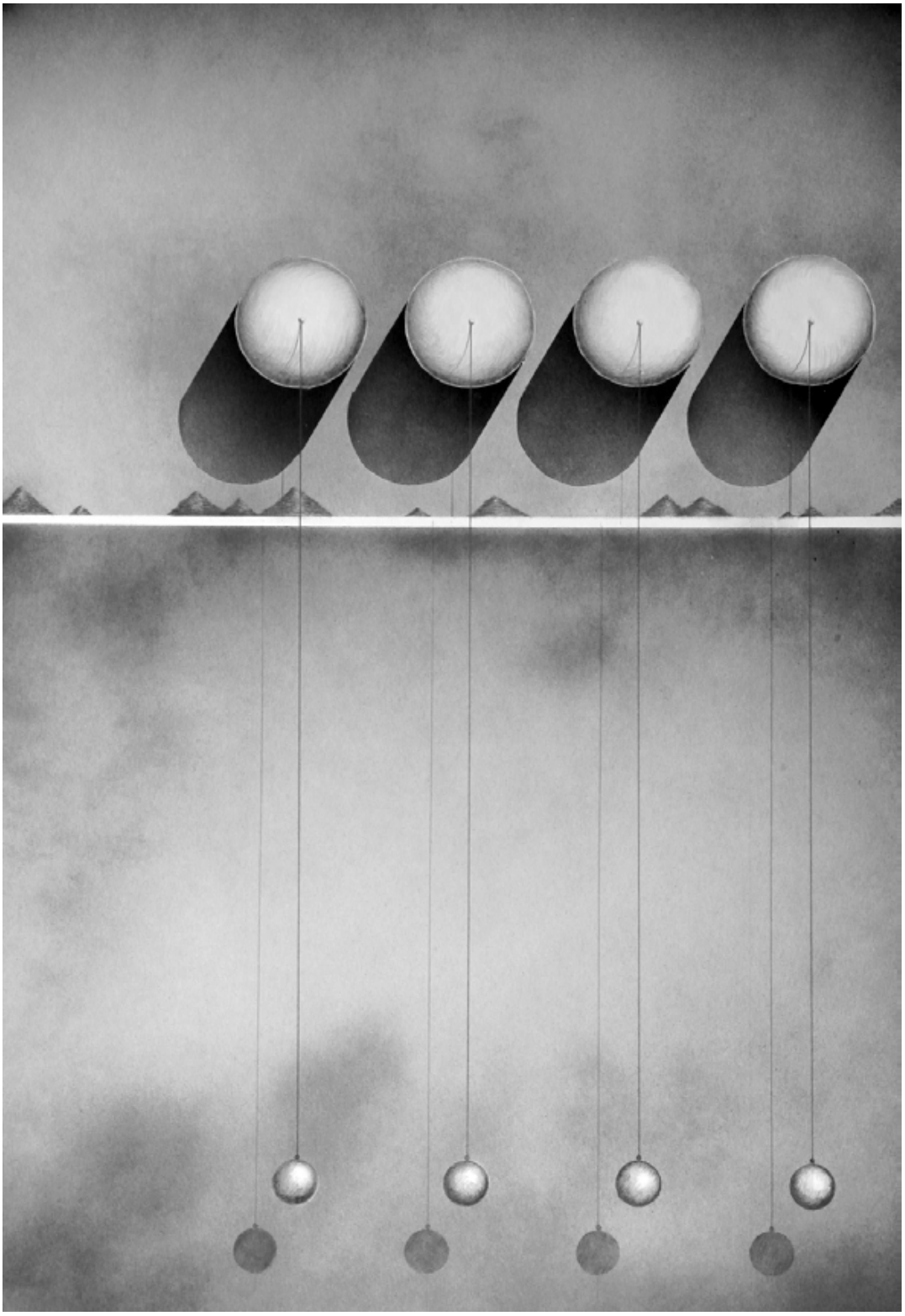
Gdansk, Poland (2012) author



Gdansk, Poland (2012) author

Despite the contemporary tourist “branding” of Solidarnosc in Gdansk, there is an important and undervalued art culture that has emerged, in the same time frame and in symphony with the more celebrated workers movement. The art practices of the WYSPA movement undertook the occupation of unused industrial sites for creative acts in the early 1980s, at the same time as workers, in united action, were abandoning factories in protest against their conditions. The relationship between this critical art movement and its proletarian roots is not widely recognised and its relationship to the identity of modern Poland is not to be underestimated. The relationship that these practices have to communism specifically, and the Soviet Union generally has not been sufficiently historicised and the social and economic consequences need to be understood holistically in an expanded political and temporal context.

There is a theoretical ancestry of opposition that runs through Polish culture and industry and, while embodied in the Solidarnosc movement, is evident in a vast array of uprisings within Poland throughout the twentieth century. Rosa Luxemburg, the tragic hero of the Communist Party in Berlin, was born is Warsaw and completed most of her education there before migrating to Berlin to be closer to the political epicentre of the radical left. As one of the seminal “dissidents” of the Twentieth Century, Luxemburg had famously written that “[f]reedom is always the freedom of dissenters” and had argued for revolution and opposition as central strategies not only in politics, but in life. That Luxemburg advocated, at every opportunity “action” over and above both the theory of revolution or the “form” of political organisation is highly significant. Her position advocated a “political” role for each independent member of society and, in line with much Marxist theory, she argued that this was withheld from the proletariat due to the social position that they were subjected to. The inability to have control over the means of production resulted in their inability to participate in political life. The strategy to engage with political life was to invert the means of production: the political consequence was the mass-strike. Central to the position of Luxemburg is the opening up of the sphere of politics through self-determination and social action. This is, in its most primitive form, a departure from the factory and workplace in order to occupy the street and city. Action, in a political sense, replaces work, in a productive sense.



Michael Chapman, Zen Machine (2012) author

Gdansk, Poland (2012) author

While the industrial morphology of Gdansk reflects clearly the role of production in shaping the city's history and form, the seminal moments of the solidarity movement were in defiance of this morphology and the rejection of industrialisation in its entirety. The gateway to the shipyards, which is a politically and historically charged artefact of the strike actions of the late 1970s, is significant for its antithetical relationship to the Taylorist factory. The highly mechanised systems of architectural organisation that have colonised the waterfront in Gdansk over several centuries were directly challenged at the work site's entry, where the union demands were scrawled above the gate, and martyrs were buried along its perimeter. As the strike progressed, the perimeter wall became not only the symbolic centre of political protest, but also the barrier between inside and out. That the protest or strike, was characterised by the lack of work was equally significant. Releasing themselves from the yoke of the production line, the striking workers expressed "idleness" as a political action, reclaiming the city, and the public realm as a site not of production, but its opposite. This cross fertilisation still permeates every aspect of the working life of the city.

5. Riga

Dating to the Twelfth Century, Riga is a city with an interesting history and a strong connection to architectural currents over the last 200 years. Riga was an important mercantile trading city throughout the nineteenth century and at the start of the Twentieth Century, the flowering of art nouveau architecture within the city made it an influential and innovative cultural centre which attracted important artists and thinkers from across Europe. Sergei Eisenstein was born in Riga, and his father, Mikhail, was an architect of a number important art-nouveau works in the city. As well as the Art-Nouveau ancestry, there is also a rich tradition of timber construction within Riga and the city still houses a rich stock in innovative wooden buildings. In the immediate aftermath of the war, the city fell under the control of the state-run planning system which, up until 1991, controlled the development of the city in a secretive and centralised manner. In 1991, with the collapse of the soviet state, a process of democratising the city's planning was undertaken, culminating in the publication of a series of planning strategies. In 1997, the old city of Riga was granted UNESCO World Heritage status. In the years since, a number of international architects, including OMA, have undertaken projects or master planning schemes for the city surrounds and outer edges to bring new cultural buildings and performance spaces to the city.

As well as its rich cultural ancestry, Riga is an important industrial port and strategic gateway to the Baltic Sea. In its prime, this industrial infrastructure included shipbuilding, timber and transportation and still dominates the northern waterfront of the city, although has contracted considerably in the last 20 years. The island of Andrejsala, to the immediate north of the city, was a centre for the port of Riga and houses a number of factories, industrial power plants and port facilities, interspliced with a rich seam of naturally treed wilderness. The industrial island contrasts with the more geometric and refined aesthetic decorum of the old city, and particularly the nearby Art-Nouveau streetscapes that interconnect with the city from the north. The derelict and obsolete overgrown island, and the rigid morphology of the city provided an important cross-section through the nineteenth century between two emerging paradigms of spatial production.

While Riga had been an important township throughout the medieval and pre Enlightenment period, it was in the 19th century that it experienced its most dramatic growth, coinciding with its increasingly strategic value to the Russian empire which, from the first decades of the century, had begun establishing government offices there. By the middle of the century, it was easily the biggest city in the Baltic region and experienced rapid expansion up until the onset of the First World War, where its population was over half a million.[36] Coinciding with the mechanical expansion of the industrial revolution throughout this period, Riga became an important conduit for materials and industrial infrastructure into and out of the Russian empire. By the 1860s, it had rail connections to Moscow, Warsaw and St Petersburg. As Plakans writes,

> These main rail lines were followed by secondary connections between other littoral cities and the entire network expanded Riga's role as a hub. Modern industrial enterprises—steam-driven, machine-using factories —proliferated in number and size, with the pace of growth exceeding the average pace of industrial growth in the empire as a whole. […] In terms of absolute numbers, if in 1864 the number of wage workers in Riga's industrial establishments was 6 114 by 1905 it was 43 252.[37]

[36] Andrejs Plakans, A Concise History of the Baltic States (Cambridge: Cambridge University Press, 2011), p. 245.

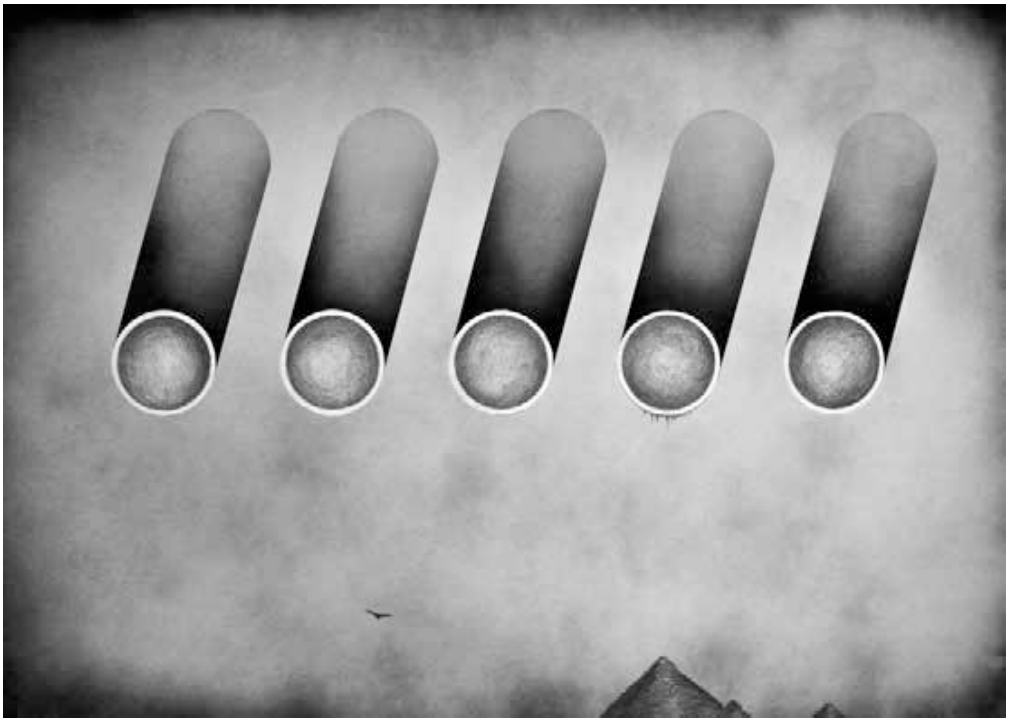
[37] Andrejs Plakans, A concise History of the Baltic States (Cambridge: Cambridge University Press, 2011), p. 245

Depictions of Riga from 1701 (top), 1820s (middle) and 1860s (Boitmann, *View of Riga*, 1861)

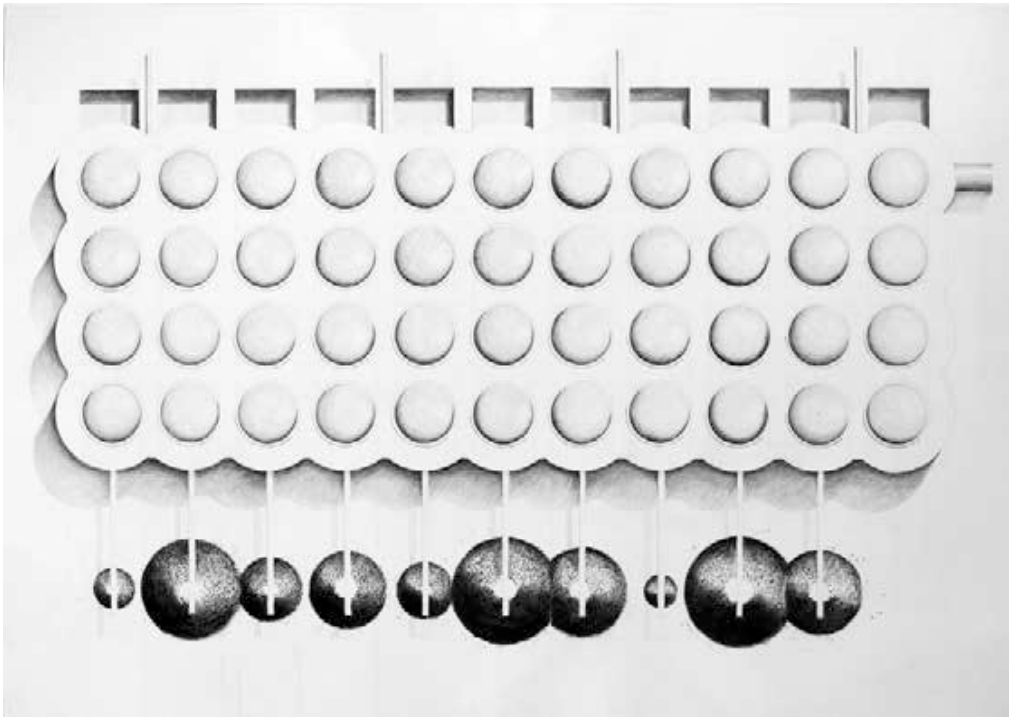
This expansion of wage-workers in Riga in the second half of the nineteenth century had a dramatic effect on the morphology of the city in two key ways. Firstly, the industrial activity at the port was intensified and the edge of the river became increasingly dominated by industrial production. Equally, the arrival within Riga of a new demographic of working-class wage earners gave rise to a number of new suburbs on the fringes of the city, following, to a large extent, the Russian (and specifically Moscow) model of working class hamlets. Workers also increasingly chose to live on the western edges of the river, expanding the limits of the city and creating a less centralised urban agglomeration than had been typical in the decades prior. From the middle of the nineteenth century until well into the twentieth, this cross-fertilisation meant that the traditional style and character of Latvian architecture would be continually interspersed with influences from Moscow and the city was highly receptive to currents and trends that permeated Russian life in the lead up to the Russian Revolution. With the emergence of the Soviet Union, which had a dramatic effect on the cultural identity of Riga, this relationship was further strengthened.[38]

The emergence of Art Nouveau within the city was encouraged not by this newly mobile working class, but by the educated middle-classes that resided to a large extent within the city centre or its immediate edges. This creates an interesting dichotomy in Riga between the proletarian zones of production and residence and the bourgeois city centre which has preserved its aesthetic and programmatic autonomy. In a number of ways, this saw a distinction between the "architectural" and ornamental aesthetic zones of the city centre and the functionality required for the "engineering" and manufacturing infrastructure that was a by-product of its economic expansion. This is evident in a number of representations of Riga from the middle of the 19th Century, where the subtle medieval morphology of the town as it straddles the hill beside the river is increasingly replaced or foreshadowed with industrial buildings and marine activity as the city expands into its new regional context and the industrial revolution began to leave its traces on the city form.

[38] S. A Mansbach, "Modernist Architecture and Nationalist Aspiration in the Baltic States" Journal of the Society of Architectural Historians **65** 1 (March 2006): 92-111.



Michael Chapman, *No Reaction* (2012)



Michael Chapman, *Workload* (2012)

In a seminal essay from the early 1970s in the first ever issue of the influential architectural theory journal *Oppositions*, the emerging historian Kenneth Frampton developed an ambitious argument in relationship to the history of architectural aesthetics.[39] Frampton argued that, in the century from 1750 to 1850, the field of architecture and engineering became conceptually distinct, as architecture became increasingly aligned with the emerging field of aesthetics and the inherent superficialities that accompanied this.

In Frampton's argument, architecture went through two significant transformations that—equivalent to the passage from courtly art to bourgeois aestheticism—saw the artistic status of architecture shifting as its economic independence diminished. In the first instance, architecture was separated from the functional and experiential domains through the arbitrary expression of form and, in the second instance, it was conditioned by the controlling forces of an accelerating bourgeois economy which limited the expression of architecture to the narrowing requirements of market forces. The nineteenth century saw architecture commercialised to a previously unprecedented extent, becoming an instrument in facilitating commerce through the design of markets, exhibition halls and the department store. This paradigm coincided, in Frampton's argument, with the simultaneous appearance of wholesale kitsch: a cycle that both he and Manfredo Tafuri linked to the inherent decadence of the nineteenth century city.

Not surprisingly, the paradigm that Frampton charts in his work was also the timeframe that saw the emergence of a dedicated space of consumption within the city and the emergence of "window-shopping" as an externalisation of the commodity to the surface of the street. This is inextricable from the art-nouveau experiments with ornamentation and the street, as well as defining a new mode of pedestrian consumer. While there is an inherent decadence within these cycles, there is equally a radical appropriation of consumption as a subject for architecture in this period, and this complicates the relationship to decadence that is intrinsic to the architectural histories early modernism.

[39] Kenneth Frampton, "Industrialisation and the Crises in Architecture," *Oppositions* **1** (September, 1973): 58-81.

Andrejsala, Riga, Latvia (2012) author

Andrejsala, on the other hand, demonstrates the other polarity that concerns Frampton, where aspects of engineering and industrialisation overpower a distinctly aesthetic approach. However, Andrejsala is equally defined by the obsolescence of its technologies as they have been slowly overrun by nature and dereliction. The departure of the major industries on the island in the 1990s has led to the island becoming overgrown, to a large extent, until a number of artists and café-owners started to reoccupy the disused industrial buildings. This began with the illegitimate re-appropriation of these sites, firstly through street art and squatting, and then through more formal interventions and occupations, eventually leading to permanent and temporary activities. This diversity began to attract visitors from the city. Informal museums, such as the Naive Art Museum, provided an alternative counter current to the high-art that dominates the nearby historical centre and embodies the kind of obsolescence that was celebrated by the avant-garde.

One aspect that is central to the phenomenon of Andrejsala is its relationship to the city, connected only by a relatively narrow peninsula and largely cut off by train lines that make it difficult to access but and, at the same time, encourage people to stay once they are there. In the same way that the "island" attracts industrial infrastructure as it can contain its impact and isolate these activities, it also makes it a particularly receptive scenario for cultural activities and sub cultures to emerge. This has been a theme in recent research into post-industrial enclaves.[40] Due to the limited resources and accessibility, islands tend to develop a resilience and sustainable paradigm that, once established allows for social and cultural transition once a mode of production or operation starts to dissipate. While in Andrejsala this has happened organically over time, the role of the island has been significant throughout the history of Riga and its current phase is as much the reinvention of its post-industrial past, as much as its supersession. In the same way that the island contained a large amount of the industrial development of Riga in the Nineteenth Century, its reinvention as a fringe sub-culture contains the vitality of these cultural influences, without allowing them to be subsumed or appropriated by the adjacent city.

[40] See, for instance: P. J. Deschenes and Marian Chertow, "An Island Approach to Industrial Ecology: Towards Sustainability in the Island Context" Journal of Environment and Planning and Manangement 47 (March 2004): 201-217.

Riga Masterplan (2012) including OMA's proposal for the Andrejsala powerplant (bottom)

Despite the organic and piecemeal development of Andrejsala and its relative inoculation from the urban matrix of Riga, it has been at the centre of recent moves in the city to develop a more culturally legitimate cultural precinct. This has been part of a process of master planning and consultation that began in 2004. With the growth and expansion of Riga, and its increasing prominence as the capital of the Baltic Region, a large amount of development flowed into Riga, with a number of high-density towers lining the western bank of the river and a number more either under construction or with approval. The impact of this on the urban morphology led to a series of master planning strategies that sought to limit tall high density development in the civic centre, but focus on compact but dense urban typologies in order to satisfy the pressure for development with the important heritage and tourist economies of the city. Part of this process also looked to encourage or commission a number of key civic buildings and Andrejsala became the suggested site for a series of these cultural interventions.[41]

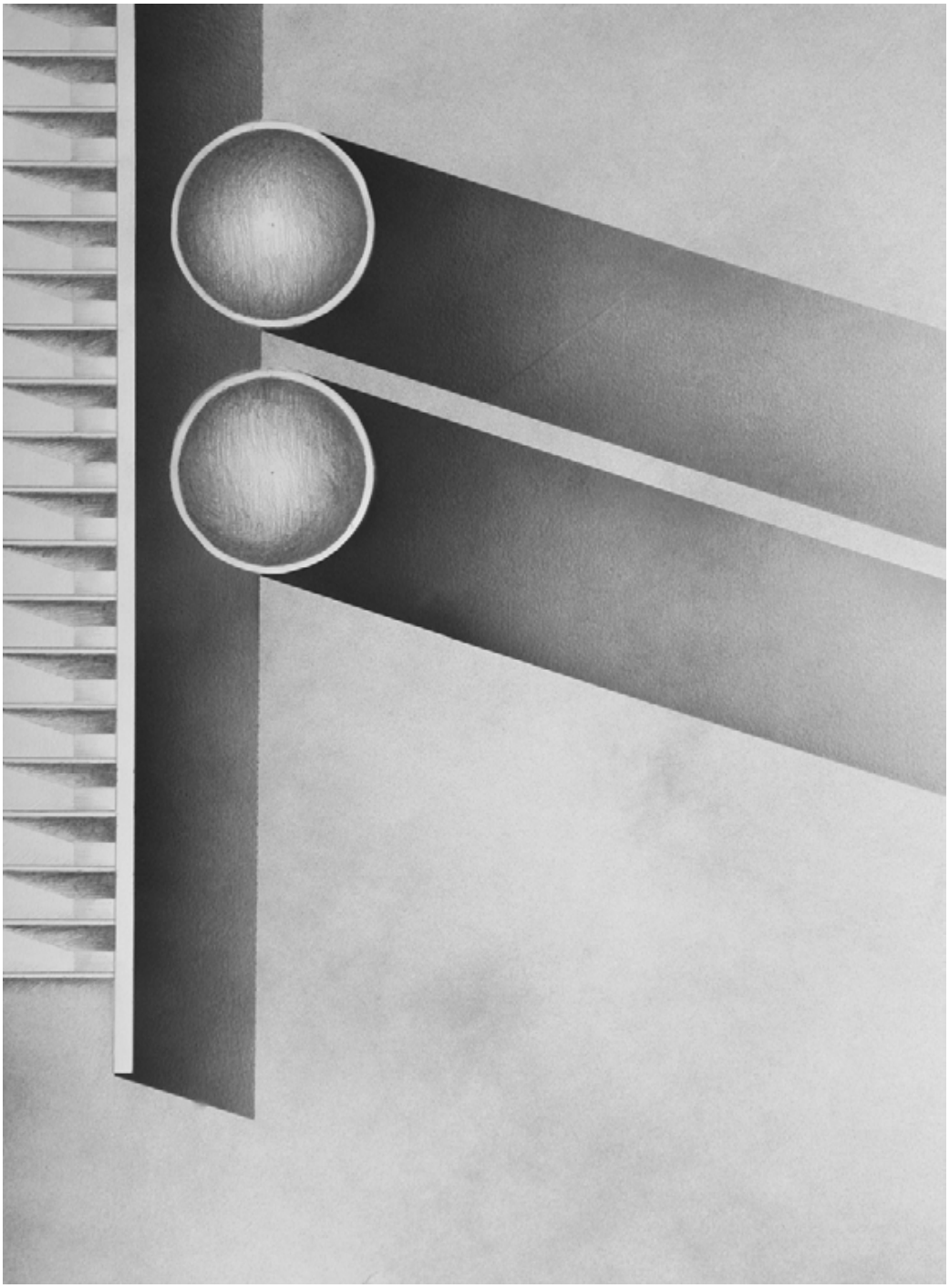
The most high-profile intervention was OMA's proposal for the Andrejsala power station which, drawing precedence from Herzog and de Meuron's Tate Modern extension in London, looked to convert the disused industrial shell into a major cultural hub. This would entirely transform the island and bring major transformations to the circulation and vehicular traffic on the peninsula. An armoury of associated cultural buildings would also occupy the corners of the island developing the precinct into one of the major post-industrial rehabilitations in Europe. While the proposal has not been built, it does underlie the shifting currents in post-industrial development between the current, slow-paced sub-cultural reappropriation of the disused island infrastructure, and the more globally-centred capital intensive reinvention of the island as spectacle. In both cases, the island, as a beleaguered utopia on the fringe of a bourgeois city provides a central role in aligning the forces of production and manufacture, with a future in cultural and creative invention.

[41] A comparison can be drawn with the post-industrial masterplanning study undertaken for Antwerp in: Bernardo Secchi and Paola Vigano, Antwerp: Territory of a New Modernity (Amsterdam: Sun Architecture, 2009).


LUEELLY

6. Odessa

Similarly to Riga, Odessa's history is a confluence between middle-class cultural values and sophistication, and strong working class traditions that collided dramatically in the middle of the nineteenth century and transformed this Black Sea port city into one of the most bustling industrial cities in Europe. Odessa is a sophisticated city, with a rich history of artistic patronage and a strong Art Nouveau building stock, as well as flamboyant neo-baroque monuments and cultural buildings, which are legacies of the economic supremacy of Odessa in the mid 1800s and the degree of capital and prestige that flowed into the city as a result. While Odessa is a beautiful and stately city, with a well composed gridded morphology that sits calmly on its dramatic coastal outcrop, the expanse of land that separates the city from the sea has become one of the most intensified and extravagant industrial waterfronts in the world, flanked by an armada of cranes and factories that create an impressive industrialised skyline. The link between this industrial edge and the city is the famous Potemkin Steps, built in the middle 1800s, but made famous in Sergei Eisenstein's *Battleship Potemkin* as the fictional site of revolutionary conflict.



Michael Chapman, Odessa (2012)

If Riga has retained a quaint dereliction in the development of its industrial zones, then Odessa is characterised by an adventurous capitalism that has seen the productive waterfront of the city interspersed with casinos, restaurants and tourist amenities, as wealthy Russian tourists flock to the city. One of the characteristics of Odessa that distinguishes it from other industrial cities is the dramatic topography, where sheer cliffs fall sharply into the ocean creating a narrow plinth along which the industrial port has unfolded below. The by-product of this, is that the city is furnished with a vast array of vantage points that look over the industrial infrastructure towards the sea, effectively separating the city itself to an elevated position that isolates it from the productive harbour below. This sandwiching of industry between the city and the sea also ensures that, unlike many other cities, this highly valuable piece of real estate has remained remarkably development free, and the entire coastline of the city is preserved by this extensive industrial morphology. This has forced the predominant tourist activites several kilometres west of the city, where featureless beach resorts clad to the sandy shores away from the industrial monolith of Odessa.

Odessa's history is relatively recent. It was Catherine the Great, in 1791, that originally annexed the peninsula of land along the Black Sea[42] including the Crimea, and brought it under Russian influence, as a deliberate and strategic negotiation of power within the Mediterranean, and Greece in particular.[43] Built on the site of an ancient, but abandoned classical fortress, the city was founded in 1794 and, by the middle of the nineteenth century, had grown to become the third largest city in Europe.[44] Odessa quickly became an important trading hub and, from 1819, was declared a free port by Tsar Alexander 1 and retained this status to the middle of the century.[45] Although while Odessa was an important trading hub, industrial infrastructure was comparatively slow to develop due partially to the scarcity of natural resources and also to the high cost of labour in the city throughout the nineteenth century. The university and cultural facilities supplied the majority of employment right up until the beginning of the Russian revolution. By the turn of the twentieth century, there was still less than five percent of the population of Odessa employed in industrial manufacture.

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[42] For a political history of the Black Sea, see: Neal Acherson, *The Black Sea* (London: Hill and Wang, 1996).

[43] George Jewsbury, "The Greek Question: The View from Odessa", Cahiers du Monde russe 40, 4 (October 1999): 751-762.

[44] Patricia Herlihy, "Odessa: Staple Trade and Urbanisation in New Russia" *Jahrbucher fur Geschichte Osteuropas* 21:2 (1973): 184-195.

[45] The period in the city's history forms a backdrop to: Edmund de Waal, *The Hare with Amber Eyes* (London: Vintage, 2011).







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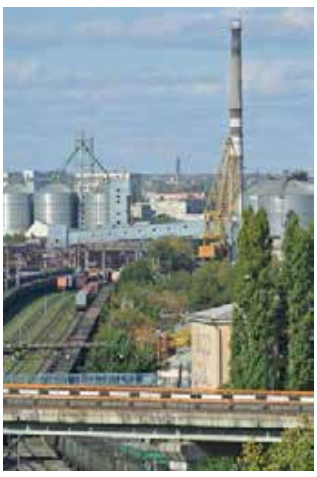
Odessa in the 19th (above) and early 20th Century (below)



Odessa, Ukraine (2012) author

The dominance, in Odessa of cultural and educational, rather that industrial infrastructure throughout the nineteenth century furnished the city with an impressive suite of cultural buildings set within a well proportioned and nicely scaled urban grid. The topography has protected the city from the intrusion of the industrial morphology, which gives the city a clear distinction between the commercial and cultural centre, and the industrial strip below. The development of the industrial zone, from the earliest period in the city's history, saw a series of perpendicular piers start to venture out into the harbour, creating a discordant rhythm of piers and manmade peninsulas as the land and ocean meet. The collision of these two morphologies could not be more dramatic and characterises the city and its three-dimensional evolution.[46]

Where a large amount of the industrial infrastructure in cities such as Riga or Sheffield has been reclaimed for cultural purposes, Odessa is still very much a working city, and the emerging tourist industry sits awkwardly within the landscape of working cranes and container ports. This also dramatically limits access to the water's edge, which is effectively controlled by the industrial functionality that has been ascribed to it. Because of this, Odessa has a vastly different character to other industrial cities and maintains a discreet distance from its productive core. It is, in the sense of Colin Rowe, a collaged city, where the realities of the different zones within the city are kept separate, but collide dramatically at key moments. The arteries carved by train lines and important traffic routes skirt the city centre and provide the conduits through which materials and technology flowed around the city, while preserving the historic centre as a place of social activity and pleasant street life. Even from its earliest manifestations, Odessa was conceived as an organic whole, around which the detritus of industrialisation would flow, gravitating to the peripheries at the same time as it defined them.[47]

Most of the industrial cities studied in this project began as a process of industrialisation that, over time, collected urban and cultural life as more and more people gravitated to these strategic points. The city and its industry are inseparable. In Odessa, however, the city and the industrial infrastructure are openly hostile: representative of dramatically different spatial approaches and epochs.

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[46] For a complete history, see: Anna Reid, *Borderland: A Journey Through the History of Ukraine* (Colorado: Westview, 1997)

[47] For a comparative study of the eveolution of industrial cities in this period, see: Rudolf Braun, *Industrialiasation and Everyday Life* (Cambridge: Cambridge University Press, 1977).

Potemkin Steps, Odessa (2012) author

Odessa raises some important questions in regard to the notion of centre and particularly as this is understood in an industrial context. The industry provides an omnipresent visual backdrop to urban life, but is separate from it in every other conceivable way. Nowhere is this spatial collision between 20th Century technology and 19th Century urban life more poetically depicted than in the Potemkin Steps which form the literal and symbolic gateway between these two distinct zones. Slicing through the industrial fringe, the beautifully conceived staircase delivers tourists and pedestrians onto a narrow concrete island jutting into the harbour, housing a casino and restaurant activities which disrupts the otherwise industrial hegemony of the waterfront. The steps were built between 1837 and 1841 to allow access from the city to the industrial waterfront.[48] Consisting of 220 steps over 140 metres, the staircase tapers outwards gradually to the ocean, distorting the horizon and its proximity. The counter-effect is that from the bottom, the viewer can only see steps, as the landings disappear due to the perspectival games being played. From the top, the stairs are invisible, as the viewer can only see the landings.

There are clear power relationships implied in this structure, which were famously exploited by Eisenstein in the Battleship Potemkin, which fictionalises a revolutionary battle on the site. While the battle had taken place in another part of the city, the inherent logic of the stairs provided a perfect filmic metaphor for the base/superstructure dialogue that underpinned the revolutionary battles of the 20th Century. From the elevated position of the city, the bourgeois state has no visibility or sympathy for the upward climb of the proletariat. Equally, from below, the revolutionary fighter sees only a wall of opposition, with no trace of occupying the flattened zones.

In some ways, the stair provides a fitting link between the contesting morphologies of the gentrified city above and the rambling industrial zone below, uniting these two interdependent spatial ideologies. Just as the avant-garde of the 1920s were the first to explore the aesthetic beauty of 20th century industrialisation, the stairway provides a gateway between these two extremes where the industrial and cultural meet. Eisenstein's filmic use of the steps draws out the ideological and social distinctions that underpin the structure of the city. At the same time, the staircase provides the perfect conduit through which these can be transgressed.[49]

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[48] See: Charles King, *Odessa: Genius and Death in a City of Dreams* ((New York: W.W. Norton & Company, 2011), p. 94-95.

[49] See, for instance: Juhani Pallasmaa, "Stairways of the Mind", *International Forum of Psychoanalysis* **9**, 1-2 (2000): 7-18.








Odessa, Ukraine (2012) author

7. Vladivostok

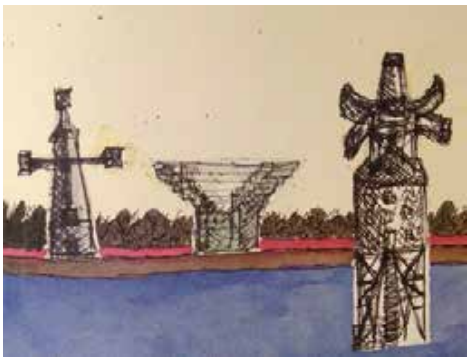
The journey from Eastern Europe to the Pacific, across the heart of Russia draws into perspective not only the transformation in regional influence and climate, but more importantly the scale of empire and the logistics of industrialisation that saw Vladivostok emerge as not only a key strategic port for both Europe and Asia but, more importantly, an isolated outpost of European production. It takes 10 days to travel from St Petersburg to Vladivostok by train and, while the two cities have some characteristics in common, they couldn't be more disparate in terms of their morphology and spatial organisation. Vladivostok has a dramatic topography which governs the complex layering of building forms that make up the skyline. Consisting of long thin ribbons of buildings that run with the contours, the city folds back from the water in a way that coalesces with the natural topology. The key links across the harbour create momentary nodes where vehicular and urban life intersect. With both a harbour and ocean waterfront, the city is a complex and sprawling three-dimensional puzzle where interweaving paths move between dramatic and all encompassing vantage points to well-proportioned and stately European style streets.

Michael Chapman, *Trans Suburban* (2012)

Passing across Russia, the scale and diversity of the country is conspicuous, as is the gradation from the highly cultivated cities of Moscow and St Petersburg, to the rural, agrarian villages that dot the featureless landscape of the eastern regions of the country, amongst the coldest and inhospitable civilisations in existence. The honesty and simplicity of village life, the hostility of the climate and the resilience of the people culminate in an unpretentious and noble built vernacular of pitched rooves, thick walls and occasional splashes of colour, despite a noticeable lack of ornamentation.

Upon arrival in Vladivostok, the scale and ambition of architecture changes dramatically where the simple provincial housing stock makes way for elegant European style streets and brutalist high-density housing. What is immediately apparent in Vladivostok is the unique morphology which traces the dramatic contours of the area creating sinuous ribbons of buildings that run parallel to the harbour, rather than perpendicular to it. The ribbon of land that traces the immediate edge of the harbour is predominantly industrial, given over to a range of ship-building and loading functions, interspersed with a network of parkways and civic buildings. The southern edge of the city has an intensification of industrial activity, lined with container ships and working cranes that creates a dynamic view across the harbour from the city centre.

Vladivostok is different from other industrial cities as a result of its remoteness. Typically, industrial nodes emerge at key strategic sites, closely connected to major cities. The relative isolation of Vladivostok, despite strong connections to the regional economies of Japan, Korea and China, has allowed the city to marry European approaches to urban planning with the localised demands of highly-industrialised manufacture, where the availability of materials and resources is critical. This has created a natural cross-fertilisation of cultures as the trading of materials and technology in both directions have opened the city to foreign and diverse influences in a way not possible elsewhere on the European continent. While the city was a clandestine naval node under the Soviet Union, the collapse of the hegemony of Soviet rule has opened Vladivostok up to a range of influences and cross cultures, making it one of the most exciting and cosmopolitan cities of the journey. Unlike Odessa, for instance, Vladivostok is comfortable with the industrial infrastructure that keeps the city alive, but it is interspersed with truly urban and cultural experiences, that create a symbiosis between industry and urban life.



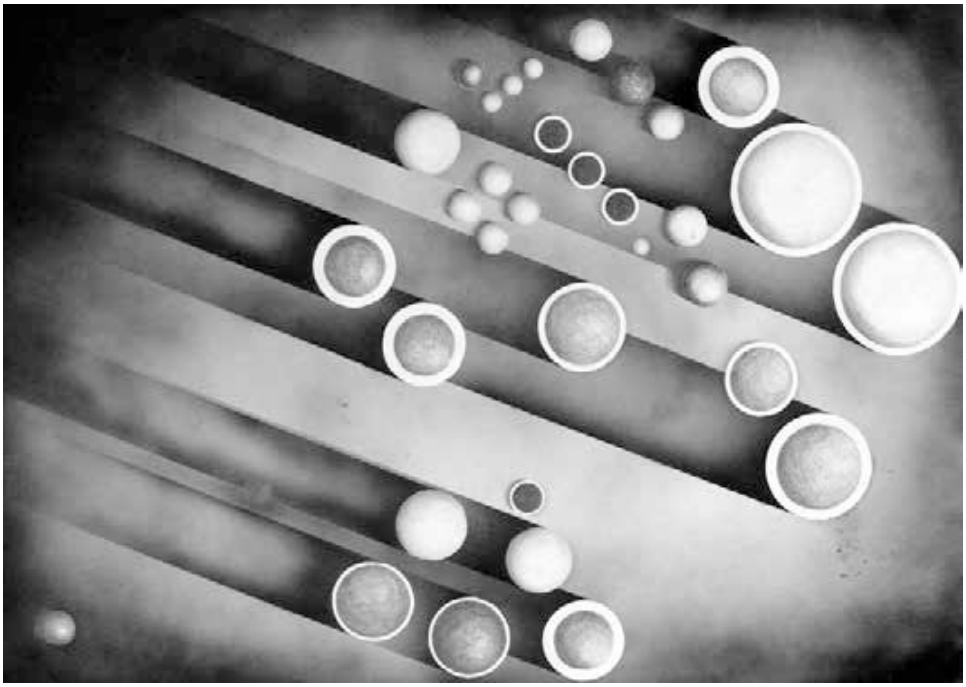
John Hejduk, *Vladivostok* (New York: Rizzolli, 1989)

It was perhaps the combination of a decaying Soviet bureaucracy with this spirit of adventure and opportunity that drew John Hejduk to the city in the 1980s for a series of quixotic but charming architectural follies.[50] These projects drew their inspiration from the Kafkaesque demarcation of public roles within the Soviet system, while at the same time displacing these power structures into a utopian world of opportunity and freedom. Hejduk's forms drew from the industrial types prevalent across Eastern Russia, as well as the familiar brutalist post-war governmental agencies that are equally as conspicuous. Hejduks's drawings describe a type of post-industrial bureaucratic utopia, isolated from the structures of government that control it, but equally bequeathed with a stock of idiosyncratic governmental built forms as markers from a previous civilisation.

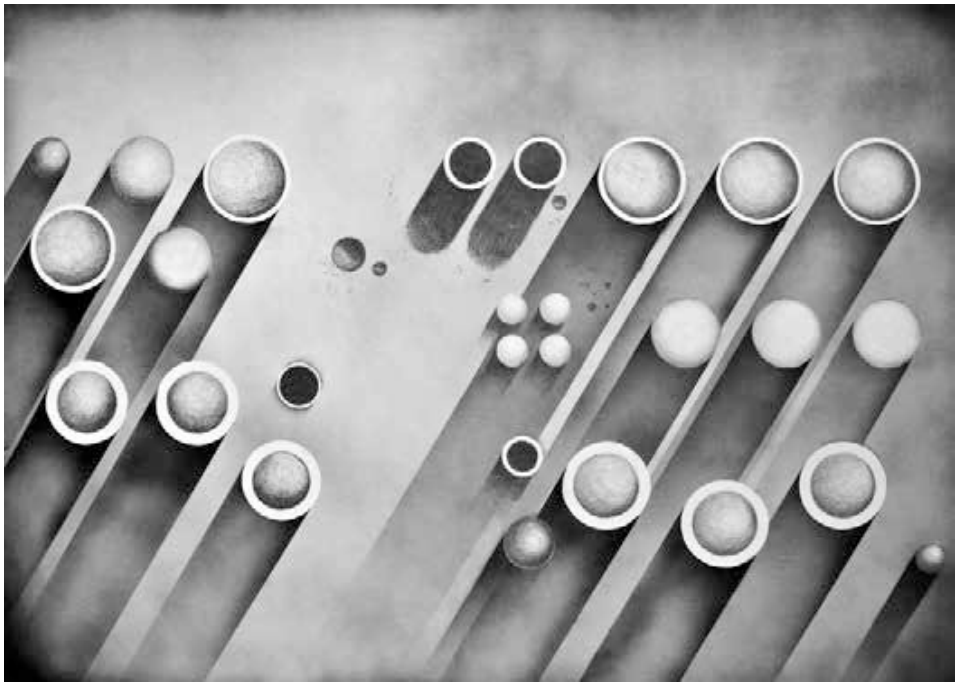
In this incarnation of the Vladivostok utopia, the structures are freed from the unity of empire, and allowed to develop their own personality and disguise. As Hejduk fictionalises the society in which he describes—equipped with a town hall, house for the homeless, justice tower, ministry of economics etc— he also humanises it, furnishing the city with faces and personas—magistrate, geneticist, sea captain, fire chief. This bureaucratic heterotopia explores the differences within civic administrations as much as their similarities, defining an architecture of fantasy rather than conformity to underpin it.

The associations between the city and utopia are not accidental. Vladivostok has had to develop a certain insular sustainability in order to reconcile the demands of industrial production with those of regional economics. The isolation of the city, as well as its status as a European outpost within the geography of Asia have always enabled a peculiar identity to emerge which is both idiosyncratic and anachronistic. For an industrial city, this combination of isolation and independence is highly unusual, contained within the enclosing walls of built form that radiate back from the harbour and embed the city within the layers and folds of the local terrain. It creates a modernist medieval village, metaphorically fenced off from the world but also highly-connected to the technological modernism of a pulsating global modern metropolis.

[50] John Hejduk, *Vladivostok* (New York: Rizzolli, 1989).



Michael Chapman, *Northern Town* 2013



Michael Chapman, *Vladivostok* 2013 (700 x 1000mm, graphite and ink on paper)

Vladivostok carries with it connotations of all of the Twentieth Century modernist utopias, where images of transport and escape co-existed with a searching for a new technological rationalism. It is not accidental that the first images of Le Corbusier's *City of Tomorrow*, where interleaved with images of sea-borne passenger ships, aircraft in flight or other technological advances in transport. The isolation of the modernist project was dramatically counter-posed with its inherent desire for connectivity and autonomy.

The machine for living in was, in its nature, *mobile* embodying not only the physics of motion but also the psychology of escape. For Lewis Mumford, one of the earliest proponents of a modernist utopia, this experience of *escape* as a specifically utopian instinct is fundamental. Mumford writes,

> we have all had glimpses of the utopia of escape: it is raised and it collapses and it is built up again almost daily. In the midst of the clanking machinery of a paper factory I have come across a moving picture actress's portrait, stuck upon an inoperative part of the machine; and it was not hard to reconstruct the private utopia of the wretch who minded the levers, or to picture the world into which he had fled from the roar and throb and muck of the machinery about him.[51]

For Mumford, the relationship between machinery, escape and utopia was not even discernible; embedded, as it were, in the competing trajectories of the modernist project. The travelling metaphor continues throughout his disposition on the topic, opposed, in both form and philosophy, to the utopias of reconstruction that are, in his argument, anchored to the everyday. This dislocation of place is even more at odds with Vladivostok, which is so firmly connected to region and terrain that it is easy to forget the scale of industrial infrastructure that underpin the city. Paul Virilio has demonstrated the way that previously urban experiences are now electronic or technological in nature and this has altered our conceptualisation of space. Where industrial production was once clearly demarcated and limited by autonomous zones within the economy of the city, it is now part of a rich global network where the physical and mechanical are interspersed with the digital and immaterial. As Virilio notes, the computer screen has replaced the public square as the primary space of social interaction and, as a result, for Virilio constitutes the new façade through which space is experienced. This is at the expense of any tangible architectural experience.

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[51] Lewis Mumford, *The Story of Utopias* (New York: Viking Press, 1950), pp. 11-15, 18-24, 26.

Vladivostok, Russia (2012) author

One example is the notion of arrival, which instead of constituting passage through a ceremonial gate or city wall, is now marked by passage through a security gate at an airport or ferry terminal. These, as a result, take on military dimensions and use the increasingly invisible qualities of technology to supersede the intimidatory forces of architectural gestures like fortifications. Virilio writes,

> [a]s the last gateway to the State, the airport came to resemble the fort, port or railway station of earlier days. As airports were turned into theatres of necessary regulation of exchange and communication, they also became breeding and testing grounds for high-pressured experiments in control and aerial surveillance performed for and by a new "air and border patrol."[52]

As a result Virilio concludes "the representation of the modern city can no longer depend on the ceremonial opening of gates […] From here on, urban architecture has to work with the opening of a new 'technological space-time.'"[53] This tendency of architecture to disappear at the same time as computerised technology has entered the domestic space has necessitated the emergence of a new kind of space. What also emerges, however, is a new conceptualisation of the interior, where the body and the machine assume a synthetic relationship.

Vladivostok has clung to all of the aspects of the traditional experience, embodying notions of spectacular arrival, rich urban street experience, integrated park ways, publically accessible waterfronts and a clearly defined and preserved notion of the centre, radiating outwards into the landscape. The rapid cross-fertilisation of influences that occurred after the collapse of the Soviet Union has energised this early Twentieth Century utopia with the circulating currents of cultural life which intermesh with the industrial histories, creating a truly heterotopic phenomenon. Vladivostok is a modernist machine firmly anchored to both place and culture and transcending the limits of industrialisation as both a regional and global phenomenon.

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[52] Paul Virilio, *The Lost Dimension* (New York: Autonomedia, 1991): 9–19.

[53] Paul Virilio, *The Lost Dimension* (New York: Autonomedia, 1991): 9–19.

8. Conclusion

Writing in 2004, the eminent ethnologist Marc Augé argued that architecture, together with globalisation and technology, had a disproportionate role to play in understanding the conditions of contemporary culture and that an ethnography of the present would need to consider the conditions of architecture and its relationship to place and production. Nowhere is this more relevant than in regard to industrial cities, where the edges of urban life have been intensified with layers of industrial production, leaving often complex and layered relationships between the periphery and the centre. As these industrial zones begin to decay, they attract their own centres, often through the arrival and occupation of arts and other sub-cultures that can make use of the industrial infrastructure, but also recast its relationship to the city. Riga, Gdansk, Stockholm, Paris and Vladivostok all embody this hybrid model of post-industrialisation where the gradual decline of industry is met with a subtle acceleration of cultural life allowing the distinctions that were implicit in the nineteenth century city to be erased.

With his emphasis on the centre and the periphery, Augé argues for an architecture aligned with the principles of utopia that embodies a transparent and codified model of social and economic ideals, which is disseminated at an alarming rate by global networks of information and exchange. This model of cultural production dismantles the individual and idiosyncratic aspects of human experience, in favour of a total representation of the system of capitalist production and global experience. Augé argues that:

> [G]lobalism tends towards a panoramic view of the city and world, selectively representing the complexity of a system and concealing the chaos of the individual and their relative histories. Architecture is equally complicit in this masking. This presents a challenge to ethnology, which sets out to observe the 'object' of a culture, and the systems that support it. [54]

What the post-industrialisation cycles of European cities start to reveal is a return to the ethnographic urban experience that Auge laments, where the aesthetic experience of the city is overwhelmed by the cultural collaborations and intersections that are restructuring it. While the edifice of the nineteenth century factory may remain, the cultural reality that is assusmes as it begins to house radical art activity or fashion shows differs dramatically. The object is effectively replaced by the cultural peculiarities that are redescribing it.

Augé's emphasis is on architectural 'objects' that are strongly aligned with both cultural production—art, music, theatre, science—and economic growth—tourism, events and urban attractors. Focussing on the most successful and resilient architectural practices of the last few decades, Augé describes the process through which "[l]eading architects have become international stars" and active agents in economic and cultural exchange.[55] For Augé, when "a town aspires to feature in the world network it commissions one of them to produce an edifice that will stand as a monument, a testimony proving its presence in the world, in the sense of being wired into the system".[56] This culture of the architectural spectacle has, in the years since Augé's text, been associated with a paradigm in contemporary culture where architecture is considered as a complete system of economic production, through a complete analysis of its 'objects' and an emphasis on its capacity for branding.

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[54] Marc Auge, *Non Places* (London: Verso, 2008), xx.

[55] Marc Auge, *Non Places* (London: Verso, 2008), xv.

[56] Marc Auge, *Non Places* (London: Verso, 2008), xv.

Novosibursk, Russia (2012)

This kind of architecture of the spectacle is implicit in previously industrial cities such as Baku, that have invited a host of foreign architects, including Zaha Hadid, to undertake epic scaled projects in the city; replacing the industrial morphology with a global culture of spectacle. This is also what is threatened in Riga, with the large scale masterplanning of Andrejsala as a cultural hegemony that would displace te current sub-cultures that exist on the island. This, as Augé warns, threatens to displace the "culture" with the "object" in a way that privileges architecture at the expense of morphology or the city. The extent to which an architectural system of ethnography can be aligned to economic processes solely through the definition and representation of key objects is replete in Augé's text, where entire 'utopias' are implied solely through the analysis of a number of elitist, but equally isolated and unique, architectural objects. For Augé:

> [I]n its more significant manifestations, architecture seems to allude to a planetary society that is yet to materialise. It suggests the brilliant fragments of a splintered utopia in which we would like to believe, a society of transparency. It sketches something that is of the order of utopia and at the same time the order of allusion by drawing in broad brush strokes at a time that has not yet arrived, that will perhaps never arrive, but that remains within the realm of the possible. In this sense, large-scale contemporary urban architecture reproduces in reverse the relation with time expressed by the spectacle of ruins.[57]

That Augé aligns architecture with the conditions (and fragments) of utopia is significant, and the appropriation of ethnographic models of study provides a framework where the ties between architecture and society can be more closely examined. The industrial city, as has been shown, is a perfect site for this model of study, as in intertwines historical and economic cycles with architectural and spatial ones. The cities examined in this study all embody a cultural and social intersection of contested ideas that have eveolved over time, and despite the rationalising forces of capitalism, in places of create diversity, encounter and dynamism. It is through an understanding of the role of industrialisation in framing these unique cultural epochs that a city of experiences, rather than objects, can begin to be understood.

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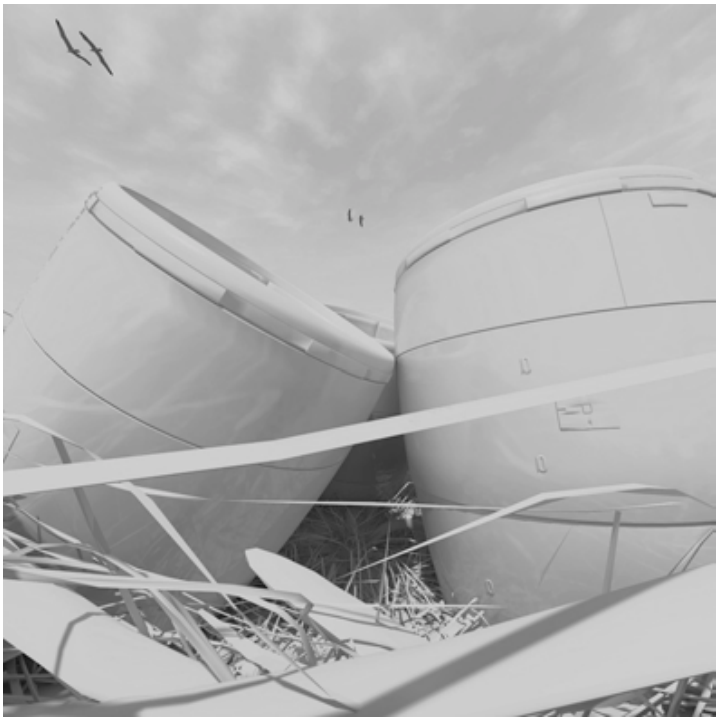
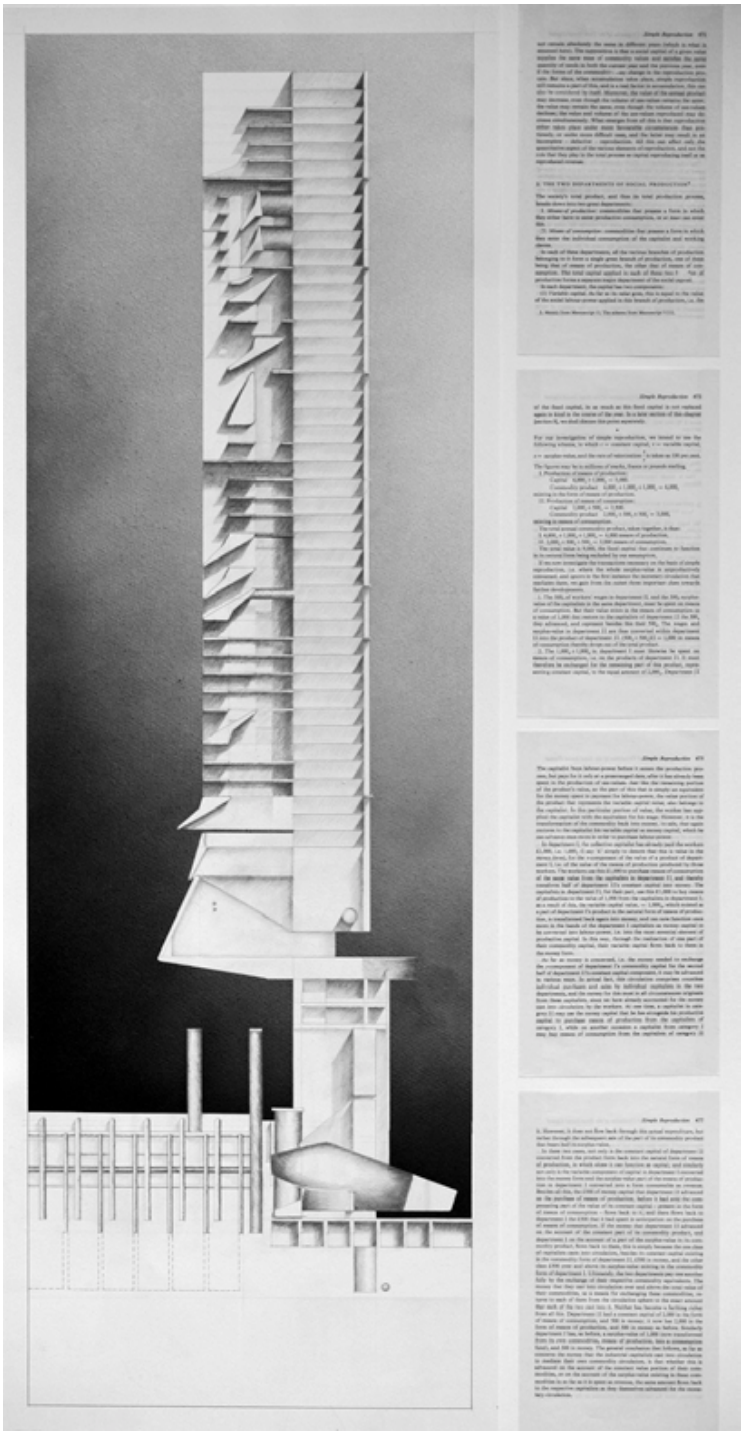
[57] Marc Auge, *Non Places* (London: Verso, 2008), xvii.



Genoa, Italy (2012) author

9. Appendix 99



Michael Chapman, re: Production 1_The Circuit of Productive Capital 2013
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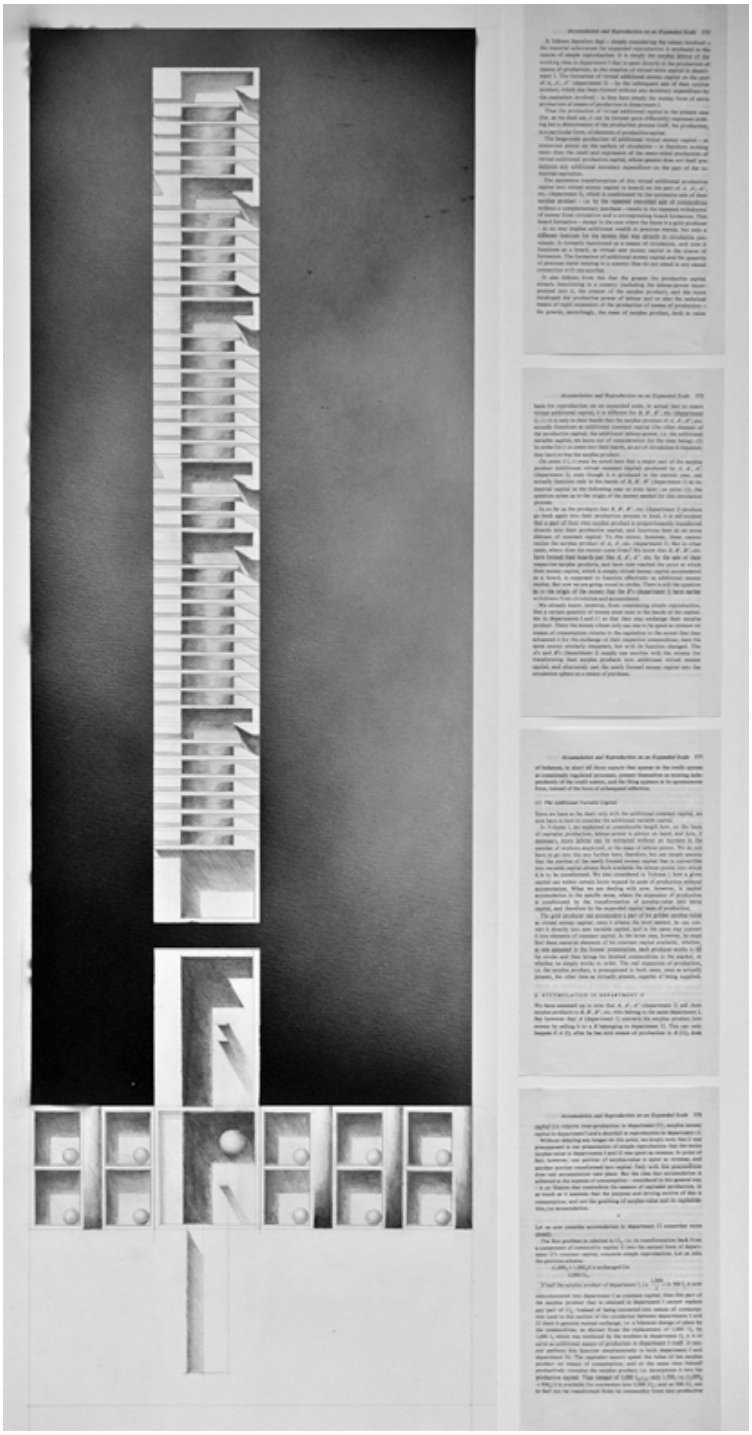

Michael Chapman, re: Production 2_The Working Period 2013
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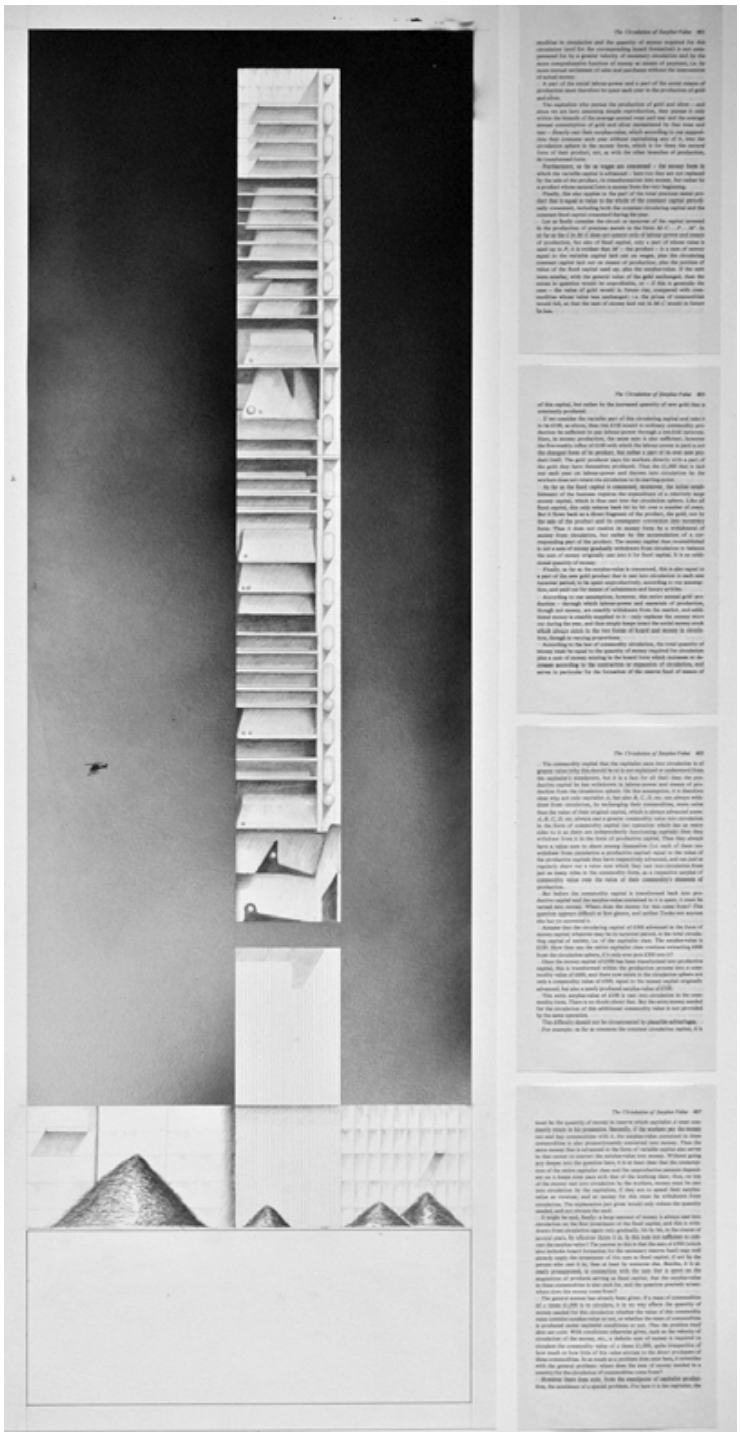

Michael Chapman, re: Production 3_Accumulation and Reproduction on an Expanded Scale
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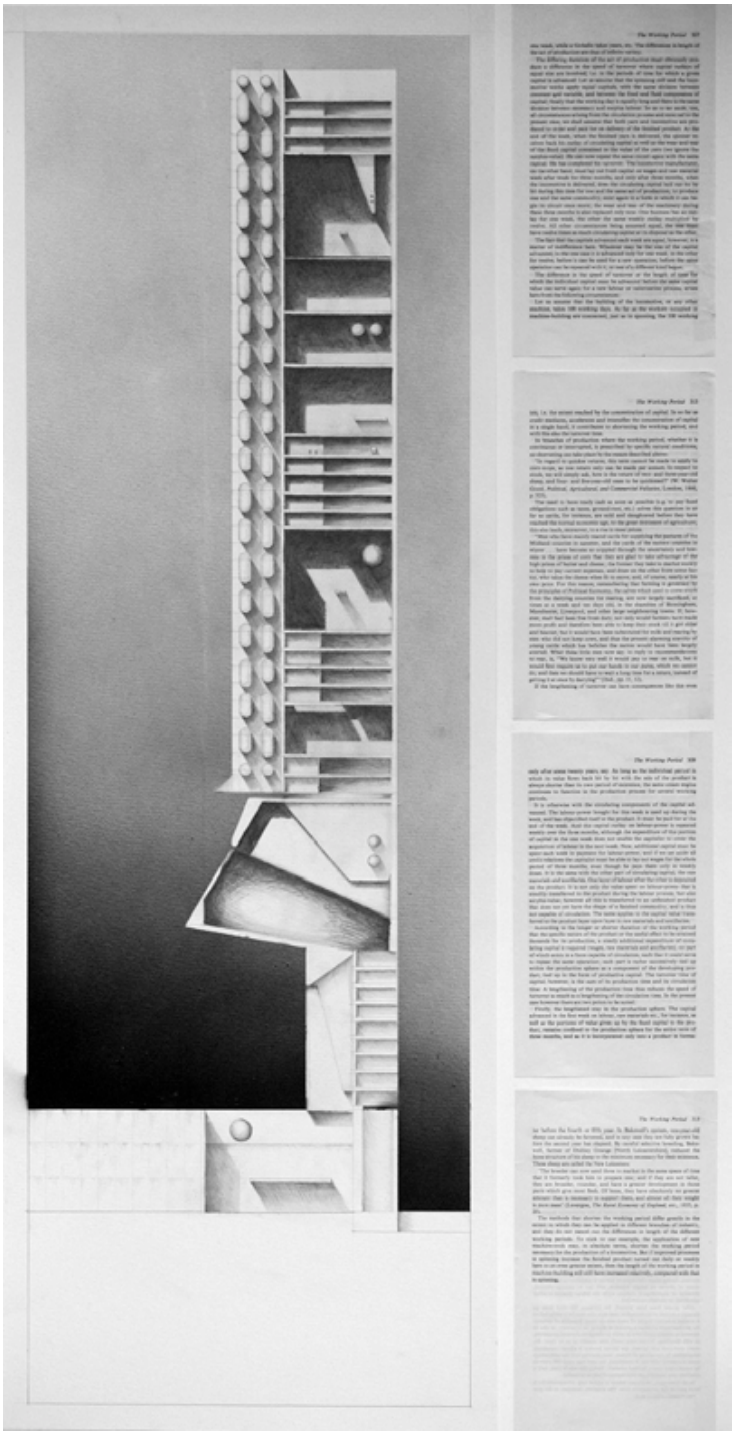

Michael Chapman, re: Production 4_Simple Reproduction 2013
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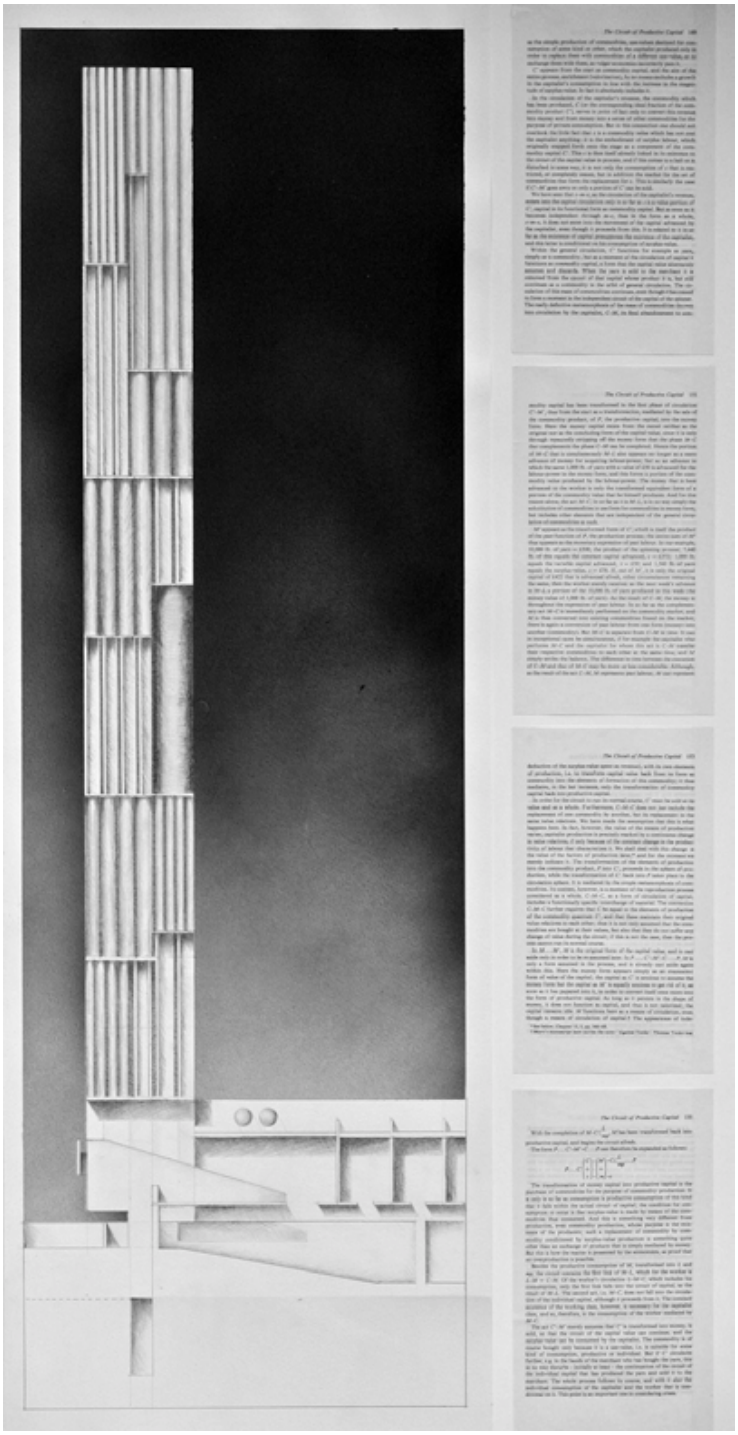

Michael Chapman, re: Production 5_The Circulation of Surplus Value 2013
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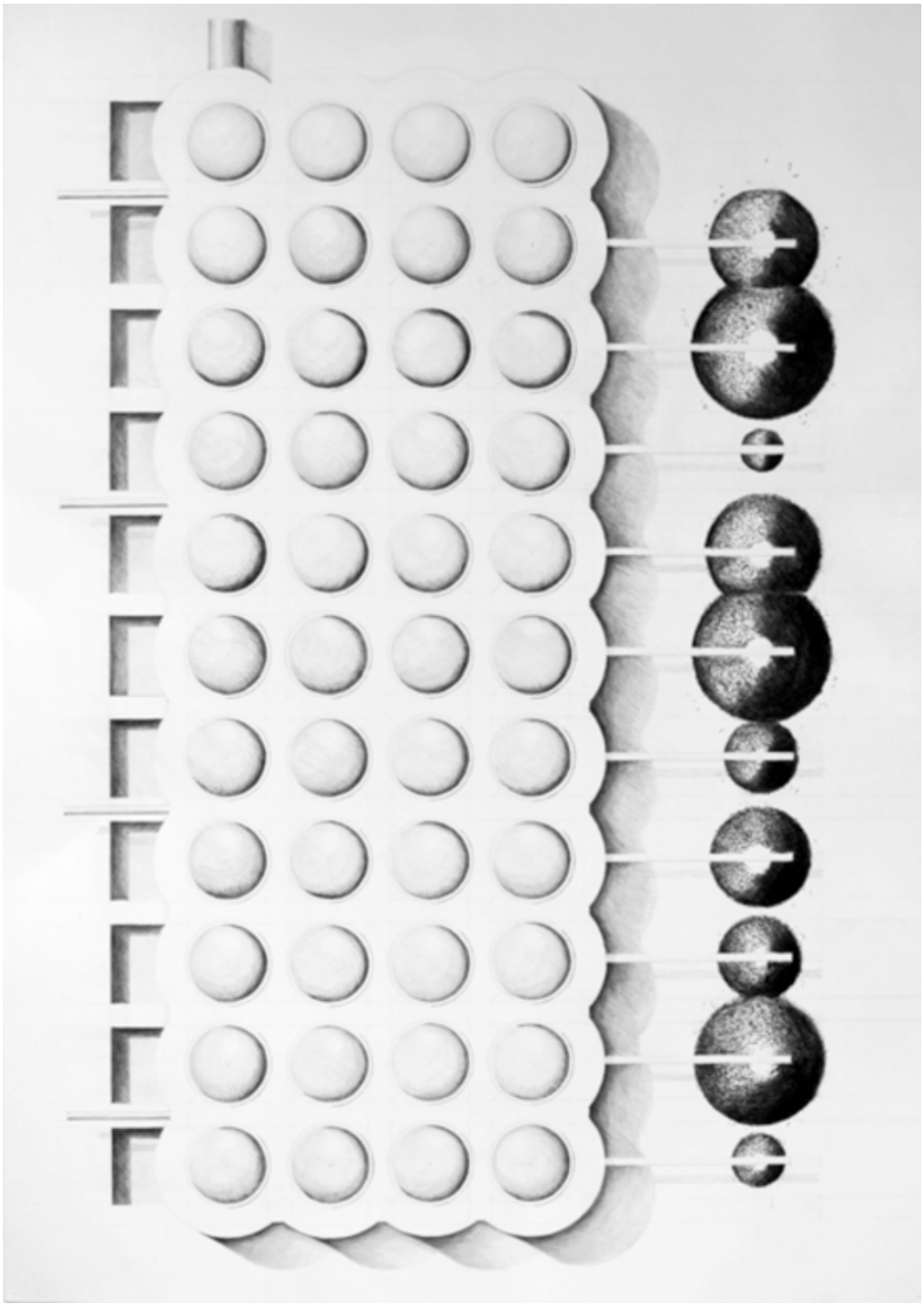
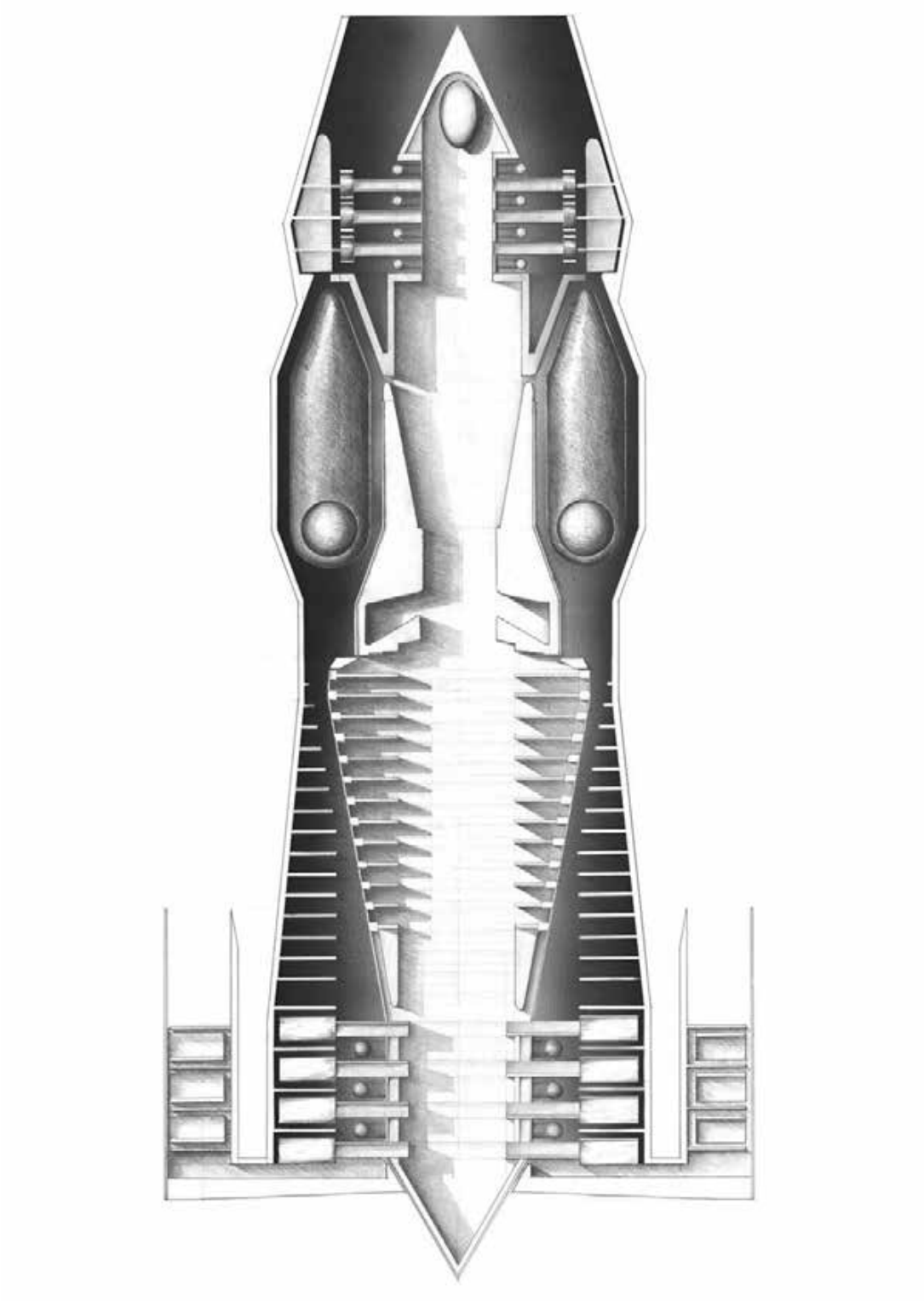
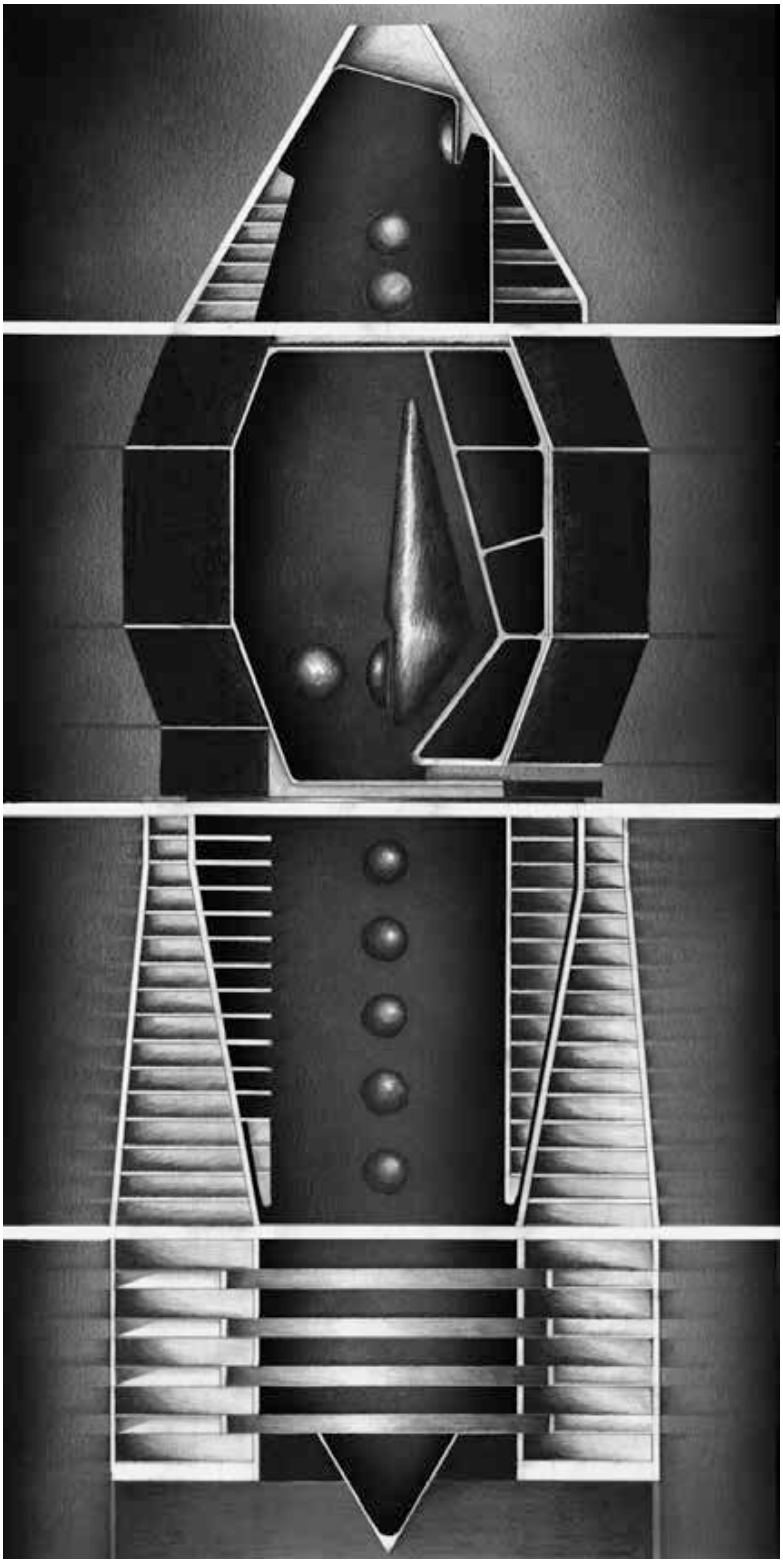


Michael Chapman, Workload, 2012
(1000 x 700mm, graphite and ink on archival paper)



Michael Chapman, **Avian Monstrosities** (2012)
(1000 x 700mm, graphite and ink on archival paper)



Michael Chapman, *Avian Monstrosities* (2012)
(1000 x 700mm, graphite and ink on archival paper)

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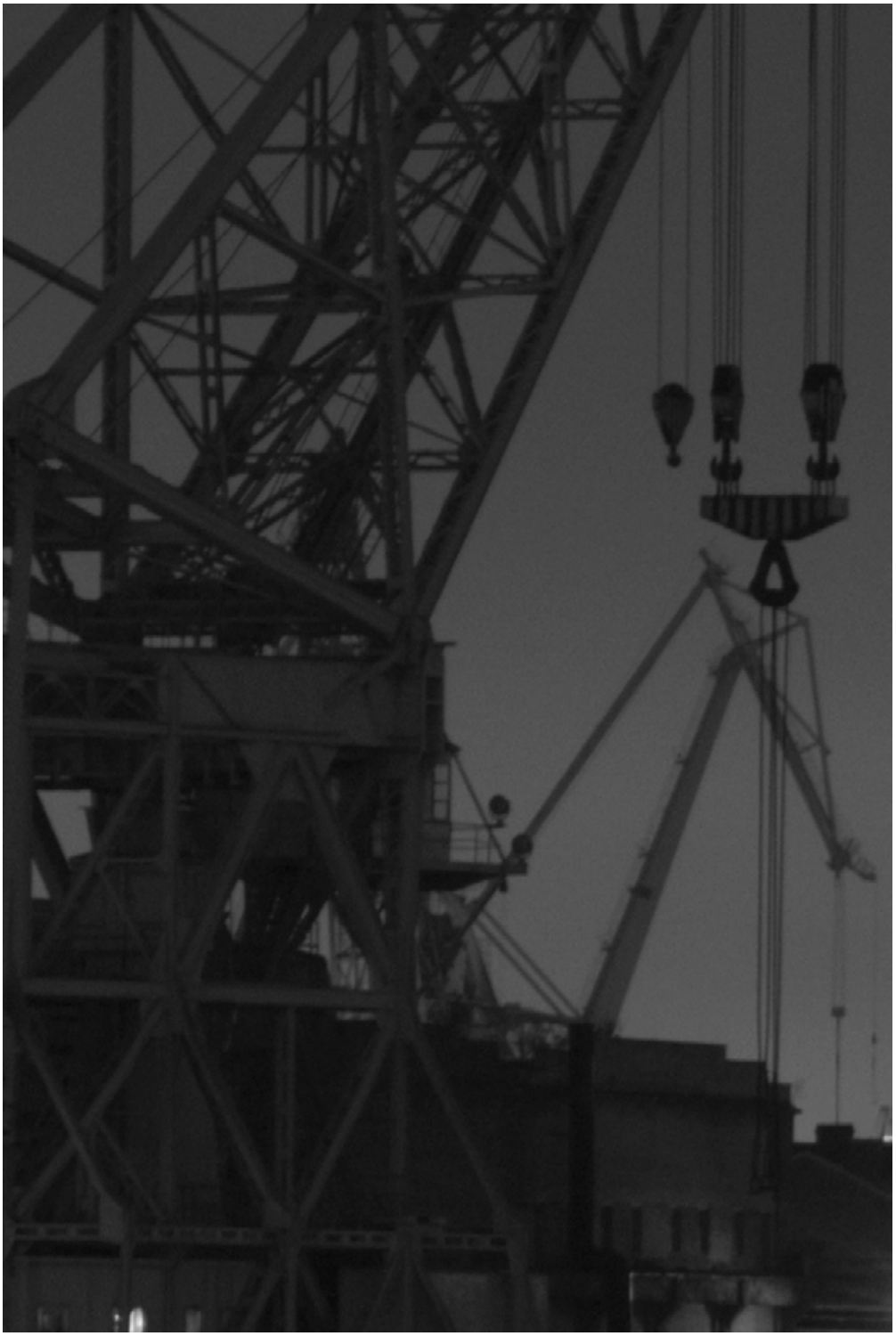
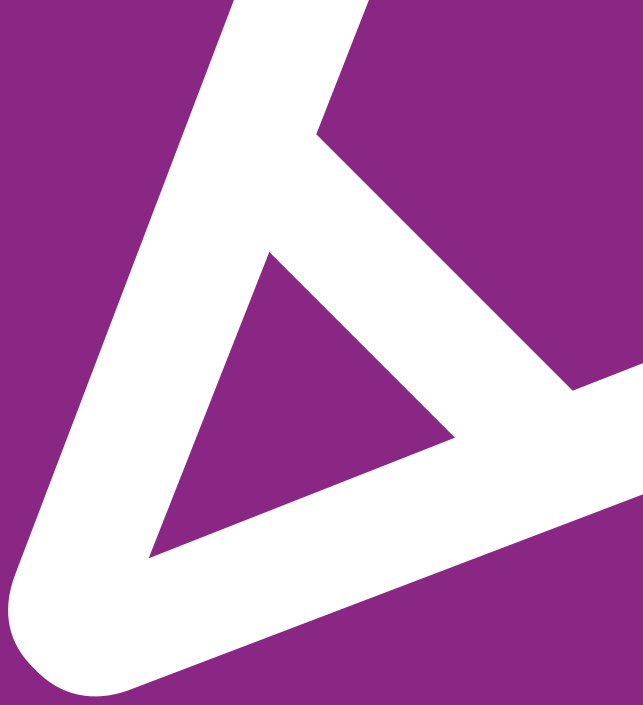


St Petersburg, Russia (2012) author



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