THE ANONYMOUS CITY

FROM MODERN STANDARDISATION TO GENERIC MODELS

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Mphil Cultural Studies

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ABSTRACT

This thesis starts from the distinction it is possible to make between modernisation (i.e. the teleological drive towards formal and ontological purification) and what modernity has been in practice (Latour 1993, 2012). As the concept of the Anthropocene leaves geology and enters philosophy, art, architecture and human sciences, such a distinction allows to explore alternative conceptions of what modernity has been and continues to be about. This, it is argued, is especially true of architecture, where a canonical history based on movements and styles keeps masking more continuous trajectories (Koolhaas and al. 2000; Jencks 2002). Exploring different architectural models and projects that have marked the recent history of architecture in relation to the city, this thesis aims to identify in the *anonymous city* the main heuristic diagram according to which the discipline of architecture has understood and sought to transform urban conditions throughout modernity. Although it has been intensely invested by the Modern Movement, the anonymous city cannot be confined to modernist architecture. First conceived along the possibilities offered by industrial standardisation, the anonymous city seems to be mainly driven, today, by generic processes. The distinction between the logics of standardisation and the logics that underpin the generic is a central concern of this thesis. Emphasising this transformation, this thesis explores the normative relation that architecture entertains with the urban condition in ways that do not only index contemporary capitalist globalisation, but also potentially challenge its organisation (see Sloterdijk 2005, 2006; Laruelle 2011). Focusing on the research project that Rem Koolhaas lead on Lagos, Nigeria, this thesis postulates that the concept of the generic might not be crucial for the future of architecture, but might also open critical possibilities to respond to the challenges prompted by global urbanisation.

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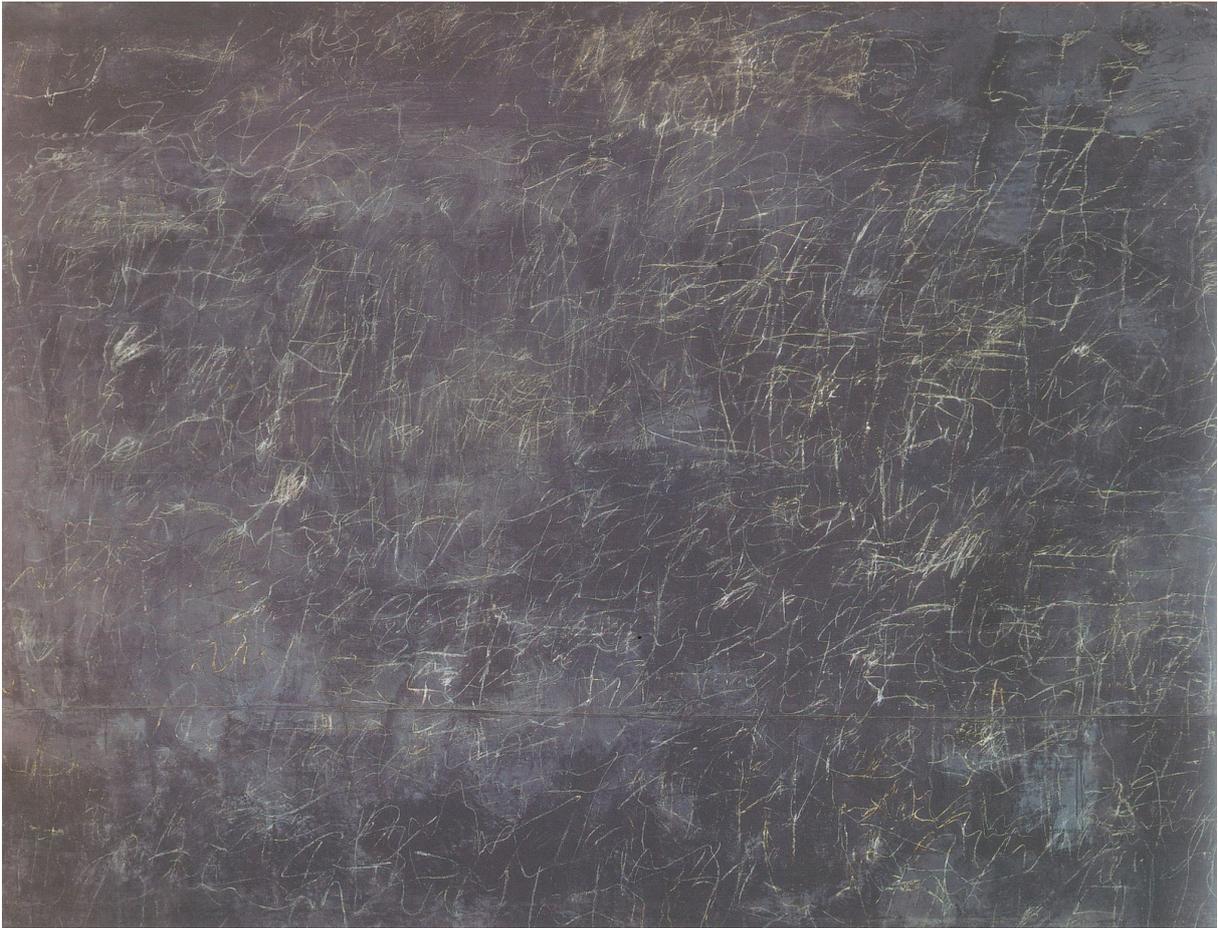
Cy Twombly. Panorama (1955)

One hundred years ago, a generation of conceptual breakthroughs and supporting technologies unleashed an architectural Big Bang. By randomizing circulation, short-circuiting distance, artificializing interiors, reducing mass, stretching dimensions, and accelerating construction, the elevator, electricity, air-conditioning, steel, and finally, the new infrastructures formed a cluster of mutations that induced another species of architecture. The combined effects of these inventions were structures taller and deeper – Bigger – than ever before conceived, with a parallel potential for the reorganization of the social world – a vastly richer programmation.

Rem Koolhaas. "Bigness, or the problem of Large — Manifesto", 1994

When the deserts reaches the homes,

the fact of not presupposing anything is the beginning of wisdom

Peter Sloterdijk. *Écumes: Spheres III,* 2003

INTRODUCTION

THE ANONYMOUS CITY

This thesis explores the relation architecture entertains with the city. At once descriptive and normative, this relation structures the political and social dimension of architecture. The city is where the demiurge aspirations of architects meet social space, where utopias confront material complexities, and where architecture's capacity to enclose and determine space faces present and future contingencies. Confronted to the city, architecture appears to be much more than the activity of designing buildings. Conceiving spatial structures, accommodating social forces, producing symbolic and aesthetic forms, architecture makes culture concrete. Architecture is a technology of environmental adaptation. It is that technique according to which humans build and transform their environment. And the city is where this becomes at once a collective and large-scale question.

Historically contingent, this problem can nevertheless be seen to have been modernity's constant preoccupation. Modern history has seen architecture conceiving, programming, planning and imagining the future city in different ways. But the city has remained its constant problem. From Modernist architecture to post-Modernist claims about context and diversity, and from the critical utopias developed by Archigram, Archizoom,

Superstudio and others in the 1960s and 70s to Rem Koolhaas' writings about the generic city, this thesis explores the many ways in which modernity and the city have been thought together, and develops the idea that architecture's relation to the urban environment should be seen as having produced increasingly anonymous and generic conditions.[1]

Modernist architecture mainly conceived its relation to the city in normative and deterministic ways, imagining standard models that could be universally imposed.[2] Criticising a programme that they generally considered to be reductive, the post-Modernist current has on the contrary greatly emphasised complexity and, calling for a return to context, has notably argued against architecture's pretention to be all-encompassing and able to handle universal models.[3] This has encouraged the development of more descriptive approaches. Architects started to develop more inductive perspectives on the city: starting by analysing and trying to understand present conditions instead of starting by imagining how the city should be.[4] However, this tended to overlook the descriptive aspects of Modernist approaches. While the Modernist city mainly emphasised homogeneity and functional hierarchy, post-Modernist architects insisted on the contrary on diversity, the complexity of present conditions, and the impossibility for architecture to contain them. Strongly criticising planning, they also disengaged architecture from any form of analytical and operational relation to the city altogether. Post-Modernism soon became a formalist movement, mainly considering architecture in terms of communication, and emphasising symbolical representation and ambivalent semiotics.

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[1] Andrea Branzi. *No-Stop City: Archizoom Associati*, New York: HYX, 2006.
[2] See notably Le Corbusier. *Towards an Architecture* (1923), Trans. Eng. by John Goodman. Los Angeles: Getty Research Institute, 2008; Idem. *The City of To-Morrow and its Planning* (1925), trans. Frederik Etchells, Dover: Dover Publications, 1987.
[3] See Robert Venturi. *Complexity and Contradiction in Architecture*, The Museum of Modern Art Press, New York, 1966; Charles Jencks. The *New Paradigm in Architecture: The Language of Postmodernism,* seventh edition, Yale: Yale University Press, 2002.
[4] Robert Venturi, Denise Scott Brown and Steven Izenour. *Learning from Las Vegas* (1972), revised edition *Learning from Las Vegas: The Forgotten Symbolism of Architectural Form*, Cambridge: MIT Press, 1977; Rem Koolhaas. *Delirious New York: A Retroactive Manifesto*, New York: Monacelli Press, 1978; Idem. "Atlanta: Journalism (1987–2004)", in Idem. *S,M,L,XL,* New York: Monacelli Press, 1995.
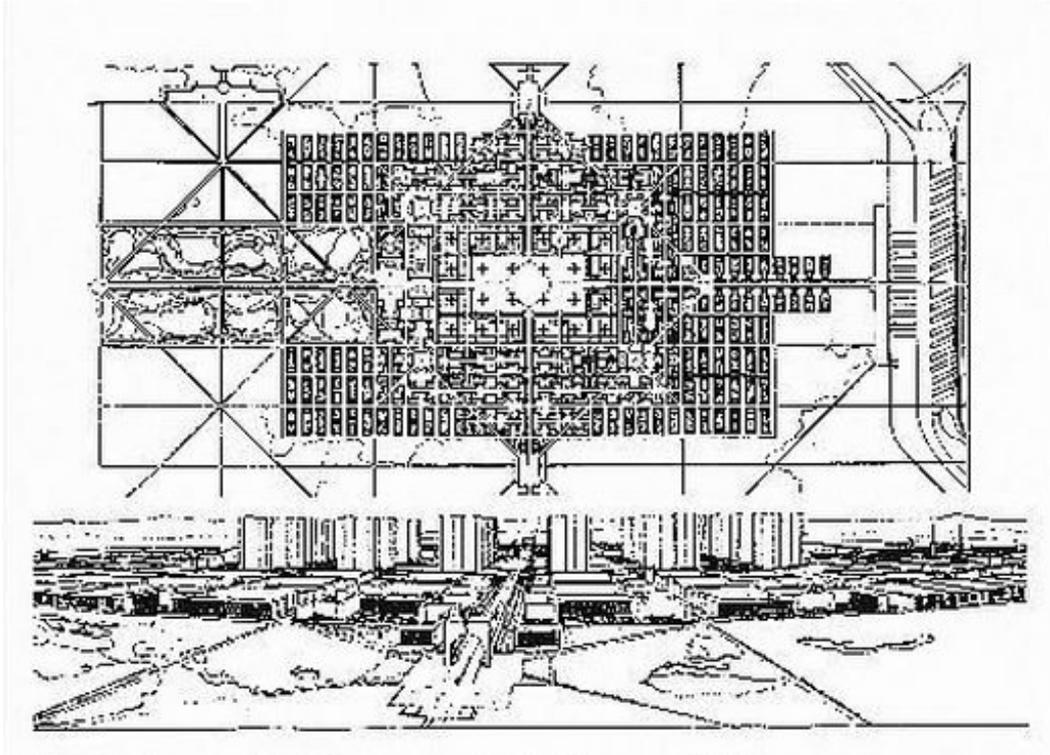
Le Corbusier. *A Contemporary City* (1925)

In contrast to this opposition, this thesis contends that Rem Koolhaas' work on the generic city offers decisive and radical propositions for rethinking architecture's relation to the contemporary city. Recalling the articulation between the normative and the descriptive at play in Modernist architecture and urban models, I will notably argue that Koolhaas' theoretical work must be read in continuity, rather than in contradistinction, to the modernist project. While his work closely relates to the descriptive turn initiated by post–Modernism, it draws very different conclusions.[5] His position remains debatable, but this thesis contends that the theoretical work he developed over the past thirty years decisively contrasts with the way contemporary architecture seems largely to be moving away from any critical engagement with the contemporary city. This thesis contends that Koolhaas' work may help to understand this relation both beyond the normative conceptions developed by Modernism and in contradistinction to the contemporary emphasis on complex forms exemplified by parametric architecture.[6] In

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[5] Rem Koolhaas and al. *Mutations,* Barcelona: Actar, 2000; Rem Koolhaas. Op cit., 1995.
[6] See Rem Koolhaas. "The Generic City" (1994), in Koolhaas. Op cit., 1995: 1237–1268; For a general presentation of parametric architecture, see Patrick Schumacher. "Let the style war

analysing and extending Koolhaas' work on the generic, I intend to explore the ways in which this concept can reinvigorate the descriptive (i.e. epistemic) and normative (i.e. political) relation between architecture and the city.[7]

The Anthropocene

The concept of the Anthropocene, developed recently by geologists in order to define the new period into which we have been precipitated in the wake of the industrial revolution, sheds new light on our understanding of modernity.[8] The Anthropocene refers to the period in which human history has crossed over to geological time and in which human activities have transformed nature in irreversible ways.[9] The Anthropocene also accounts for a profound reversal concerning our understanding of space and the urban environment in that it contends that nature can no longer be separated from the technical operations to which humans have submitted it.

    While architecture must still be understood as the particular technique according to which humans do not only adapt themselves to their existing environment but adapt and construct their own environment, this

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begin" (2010), Architects' Journal: http://www.architectsjournal.co.uk/patrik-schumacher-on-parametricism-let-the-style-wars-begin/5217211.article; Idem. "Parametricism as style – a parametric manifesto", Presented and discussed at the Dark Side Club, 11th Architecture Biennale, Venice 2008:
http://www.patrikschumacher.com/Texts/Parametricism%20as%20Style.htm

[7] This argument mainly relates to the way Michel Foucault, following Georges Canguilhem, constantly considered that epistemological questions were always also political questions. On the one hand, his work consisted in showing that the way we describe and understand things are always also imbued by practical dynamics concerning the way we act and the way we manipulate these things. On the other hand, he also repeatedly argued that political questions about hierarchy, domination and governmentality were also always imbued with, and even determined by, specific modes of knowledge production. Michel Foucault. *Territory, Security, Population: Lectures at College de France 1977–1978* (2004), trans. Graham Burchell, London: Picador, 2009; Idem. *The Order of Things: An Archaeology of the Human Sciences* (1966), Pantheon Books, 1970; Georges Canguilhem. *The Normal and the Pathological* (1946), trans. Eng. Caroline R. Fawcett, London: Zone books, 1991.

[8] I would like to thank all the participants at *The Matter of Contradiction*, a cycle of conferences and workshops organised between 2011 and 2013 by Fabien Giraud, Ida Soulard, Tom Trevatt and Sam Basu, whose collective work has largely determined these considerations about the anthropocene. See: http://lamatiere.tumblr.com/

[9] See notably Jacques Grinevald, « Le concept d'Anthropocène, son contexte historique et scientifique », in *Antropia*, no 12, Spring 2012: 22–38; and Paul Crutzen and Eugene F. Stoemer, "The 'Anthropocene'", *Global Change*. IGBP Newsletter, no 41, 2000: 17–18.

understanding can no longer be based on any clear ontological separation between nature and culture. Peter Sloterdijk shows that the spheres humans built have always been shields with which they could simultaneously protect and emancipate themselves from nature. But he also showed that the process of scientific and technological explicitation intensified by modernity completely transformed our relation to both nature and the built environment.[10] Manipulating and engineering nature as much as isolating and understanding the laws according to which it unfolds, modernity relentlessly developed multiple links between nature and culture. These links have progressively transformed nature in irreversible ways. Nature no longer exists completely isolated from human activities. It no longer unfolds as an extrinsic relation with humanity. As the recent nuclear disaster in Fukushima showed so forcefully, nature appears to be produced, controlled and managed by humans just as much as it can in turn eradicate them. Largely produced by human activities, it nevertheless continues, and perhaps more than ever before, to be determined by dynamics that do not only largely exceed humans in terms of scale, but that also prove to be largely indifferent to them. The concept of the Anthropocene underlines the paradox whereby humans have become the centre of a world in which they nevertheless only occupy a very peripheral position. Destroying the harmonious concept of Nature on which the Moderns based their constructions, the concept of the Anthropocene implies not only a different reading of our relation to the environment, but also a different reading of modernity. Both modernity and modernist architecture shared the project of emancipating humans from natural vicissitudes. Emphasising the ways in which nature, now largely engineered, transformed, and controlled by various social, technical, and scientific apparatuses, strikes back at humans, the Anthropocene seems to register the failure of the modern project. It can however be argued that it rather underlines the dynamics that really constituted this project. Rather than looking at its teleological ambitions, we must look at what modernity actually produced.

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[10] Peter Sloterdijk. "Nearness and *Da-sein*: The Spatiality of Being and Time", in *Theory Culture Society* # 29, 2012 : 36–42; Idem. *Écumes: Sphères III* (2003), trans. Fr. Olivier Mannoni, Paris: Maren Sell Éditeurs, 2005.

Contrary to what it generally claimed, and especially contrary to the way postmodern critiques ended up describing it, modernist architecture may have been much more contextual than what is commonly understood. To be more specific, modernist architecture must not have been contextual, but it has certainly been environmental, in the sense that it transformed our environment in unprecedented ways. Modernist architects may not have transformed the urban condition as radically as they aspired to. But the way they endorsed the transformations prompted by the industrial revolution, their conception of standardising logics, and their ambition to produce a truly industrial architecture has had more profound consequences than what they actually build. Aiming to understand these consequences, this thesis looks beyond the confines of architectural culture. It does not look at buildings and urban plans, but rather at the models and diagrams that have characterised the relation that architecture has entertained with the city throughout modernity. It can thus be said that, at its more general level, this thesis explores the spatial architecture of modernity.

This can notably be read in the recent ecological turn that arose in continental philosophy and humanities. Bruno Latour and Peter Sloterdijk are amongst the most important representatives of this turn. Very attentive to the Anthropocene question, they had already some years ago began to translate its consequences in more theoretical terms. They notably emphasised spatiality, arguing that the many problems we suddenly encountered with the modern project was not only due to political and sociological critiques, but also, and perhaps more profoundly, to the way it had framed our understanding of space. Although they certainly cannot be identified with one another, they share the same idea that it is impossible to navigate the Anthropocene according to the Euclidean coordinate system.[11]

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[11] Bruno Latour notably argues: "There is probably no more difference among thinkers than the position they are inclined to take on space: Is space what inside which reside objects and subjects? Or is space one of the many connections made by objects and subjects? In the first tradition, if you empty the space of all entities there is something left: space. In the second, since entities engender their space (or rather their spaces) as they trudge along, if you take the entities out, nothing is left, especially space. Tell me what your position on space is, and I'll tell you who you are: I suspect such a touchstone is equally discriminating for philosophers, architects, art historians, and others." Bruno Latour. 'Spheres and Networks: Two Ways to Reinterpret Globalization', Paper presented at Harvard School of Design

Euclidean geometry posited that it was possible to isolate space from the entities that were populating it. Things were residing in space. They were circulating within space. Space was hence conceived as a container that could be looked at from the outside. In revealing that the Modern separation between a universal nature on the one hand, and a multiplicity of cultures on the other hand, could no longer stand, the concept of the Anthropocene revealed how many dynamics were looked over by this conception of space. By revealing that things could no longer be looked at from an outside position, the Anthropocene creates a kind of epistemic dust bowl. Things cannot be looked at from the outside. Exemplified by what happened at Fukushima, everything appears suddenly much more related, as phenomena that we used to separate and isolate in different domains are revealed to be weaved on the same immanent plane. Space is no longer a container, rather, space is the product of various entities as they circulate, relate to other entities, and are submitted to various processes. Spatial paradigms inherited from both Euclidean geometry and Cartesian metaphysics are no longer adequate to grasp the complexity of contemporary urban dynamics: relations between urban space and the natural environment can no longer be understood exclusively, as if they were intertwined but hermetic containers that could be looked at from the outside. They are rather morphing realities, merging with each other, multiplying connections that can only be addressed from inside.[12]

This transformation suggests that space must be conceived *topologically*. Contrary to Euclidean geometry, which assumed that space was in fact an absolute extrinsic dimension in which entities were circulating and in which their position and transformations could be calculated and measured, topology implies a more relational definition of space according to which there are no displacements that do not imply transformations.[13]

(organized with Peter Sloterdijk) (17.02.2009), published in Harvard Design Magazine n°30, Spring/Summer 2009.

[12] See René Thom. *Paraboles et Catastrophes. Entretiens sur les mathématique, la science et la philosophie* (1980), Translated from Italian to French by Luciana Berini, Paris: Flammarion, 1983.

[13] Gabriel Catren. "The Thing and The Shrink", paper presented at a conference held in the Dark Materialism programme organised by Kingston University London, 12 January 2011, at

Topological forms do not move and circulate within space, they do not occur in space, they are not contained in space (e.g. like a bed would be in a bedroom), but rather are constantly modifying their dimensions and generating new ones. Latour and Sloterdijk have different views on this. Their theoretical models do not share the same topological architecture. Latour emphasises relations. His universe is composed of *networks*.[14] Sloterdijk, on the contrary, can be seen to emphasise separation, to emphasise the importance of borders. His universe is composed of *spheres.[15]* For Sloterdijk these spheres are immune structures whose internal organisation depends on the borders they draw with their surrounding environment. Focusing on their relative autonomy, he examines the internal conditions that they frame, rather than the dynamic links that connect them together, as does Latour.[16] Latour and Sloterdijk's systems can thus be seen as focusing on different implications of topology. Stressing on different aspects, their systems display different architectures. But both address the transformations implied by the Anthropocene. Going back to the discipline of architecture, what Latour and Sloterdijk share is probably more important than what they do not. Their philosophies imply a different conception of modern spatialities, one that insists on their relational (i.e. ecological or mereological) dimension, and thus one that emphasise their relation to the environment rather than on their teleological constructions. This means that rather than emphasising on the decontextualised nature of modernist architecture, the question bears on the redefinition of what the context means for architecture.

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the National History Museum of London. See: http://backdoorbroadcasting.net/2011/01/gabriel-catren-the-thing-and-the-shrink/

[14] Bruno Latour. *An Inquiry Into Modes of Existence* (2012), trans. Catherine Porter, Cambridge, MA: Harvard University Press, 2013; Idem. *Reassembling the Social: An Introduction to Actor-Network Theory*, Oxford: Oxford University Press, 2005; Idem. *We Have Never Been Modern* (1991), trans. Catherine Porter, Cambridge: Harvard University Press, 1993.

[15] See Sloterdijk's grand trilogy. Peter Sloterdijk. *Globes: Spheres II* (1999), trans. Olivier Mannoni, Paris: Maren Sell Éditeurs, 2010; Idem. *Écumes: Sphères III* (2003), trans. Fr. Olivier Mannoni, Paris: Maren Sell Éditeurs, 2005; Idem. *Bulles: Sphères I* (1998), Trans. Olivier Mannoni, Paris: Pauvert, 2002.

[16] For a presentation of the differences and the common points between Latour's and Sloterdijk's conceptions, see: Bruno Latour. "Some Experiments in Art and Politics", in e-flux journal, #23, March 2011. http://www.e-flux.com/journal/some-experiments-in-art-and-politics/

Normative conditions

This topological transformation does not only entail epistemological challenges, but also normative transformations, transformations that affect not only architecture's normative dimension, but also the definition of architecture more generally. While contemporary architecture is increasingly evaluated and understood according to its capacity to generate autonomous and innovative forms, this thesis rather emphasise older categories of structure and function. But it also acknowledges that these categories should be largely redefined.

Manuel Castells argues that the culture that matters for the development of a given economic system is the one that materialises in organisational logics.[17] Because it contends that contemporary organisational dynamics are subjected to important transformations that no longer unfold in Euclidean space but rather according to topological dynamics, this thesis does not consider architecture to merely organise elements within space, but further defines its activity in terms of the conception, the engineering, and the active adaptation of our environment.[18] While architecture is thus defined as the technique through which humans actively transform and adapt their environment, it is seen to produce spatial conditions that in turn condition its practice.

Developed in relation to Sloterdijk's notion of spheres, the term condition here extends what in architecture is generally referred to in terms of context. The notion of context usually defines the metric spatial extension in which things can unfold and expand. The notion of condition is topological, in that it does not suppose any extrinsic spatial container in which things would reside, and rather consider space to be emergent, produced by the encountering of different entities. While it largely draws on Sloterdijk, the conception I develop here can also be seen to relate to the way Hannah Arendt famously argued in *The Human Condition* (1958) that the

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[17] Manuel Castells. *The Informational City: Information Technology, Economic Restructuring and the Urban-Regional Process*, Oxford: Blackwell, 1989: 152.

[18] See Peter Sloterdijk. *Le palais de cristal: à l'interieur du capitalisme planétaire* (2005), trans. Fr. Olivier Mannoni, Paris: Maren Sell Éditeurs, 2006

only thing that can be said to be universally true of human beings is that they are conditioned beings.[19] Imagining a movement of massive emigration to another planet, Arendt argued that although the fundamental conditions under which humans live on Earth would no longer be relevant, these cosmic migrants would still be conditioned beings.[20] The important and complex technical nature of the different cells and capsules that humans actually need to navigate in extra-terrestrial space indicate that these conditions are effectively at once spatial and immunological. Nothing expresses this better than the space suit and the interface it constitutes between the human condition and the infinite and un-human dimensions of the universe. Humans can navigate through space only once they possess this artificial, specially-designed envelope in which they carry their specific life conditions. Stanley Kubrick's famous film, *2001: A Space Odyssey* (1968), perfectly exemplified, through its careful stage design, the way we can generally define architecture to be the technique of *spatial conditioning*. There is probably no best architectural than Kubrick's Space Odyssey in the history of cinema. This film indeed extends the definition of what architecture is about. Far from being limited to the buildings, drawings, and design plans that populate architectural magazines, architecture can be seen to include more generally all spatial envelopes: from birds' nests and igloos to space suits, airports and the complex systems that form contemporary informational networks.

From this standpoint, architecture acquires an existential dimension. Clearly visible in Arendt's account, this may be even more true in Sloterdijk's work. By elevating the notion of sphere to the level of a fundamental anthropological and topological concept, Sloterdijk has indeed greatly

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[19] Hannah Arendt. *The Human Condition* (1958), second edition, Chicago: Chicago University Press, 1998.

[20] Hannah Arendt writes: "The most radical change in the human condition we can imagine would be an emigration of men from the earth to some other planet. Such an event, no longer totally impossible, would imply that man would have to live under man-made conditions, radically different from those the earth offers him. Neither labor nor work nor action nor, indeed, thought as we know it would then make sense any longer. Yet even these hypothetical wanderers from the earth would still be human; but the only statement we could make regarding their "nature" is that they still are conditioned beings, even though their condition is now self-made to a considerable extent." Hannah Arendt. Op cit., 1998: 10.

stressed the essential relation existence entertains with space. The contribution that his massive anthropo-technical history makes to architecture is entirely bound to his conception of Martin Heidegger's early idea that existence does in fact depend on neighbourly relations.[21] Taking distances with Heidegger's existential focus on subjective isolation and modern loss, Sloterdijk recalls these early insights of the (in)famous German philosopher, according to which "Dasein is spatial",[22] and following which it can be argued that an essential tendency toward nearness lies in all forms of existence.[23] Sloterdijk took this idea seriously, coming to consider that ontological questions were always also morphological questions. Following him, it can be said that architecture is nothing more than the technique that both extends and confirms the fundamentally spatial orientation of existence. No longer simply symbolic, simply defensive, simply comfortable or purely functional, architecture thus appears to be constitutive of organisational systems that are at once semiological (i.e. signs and meaning) and immunological (i.e. about the material conditions of existence).
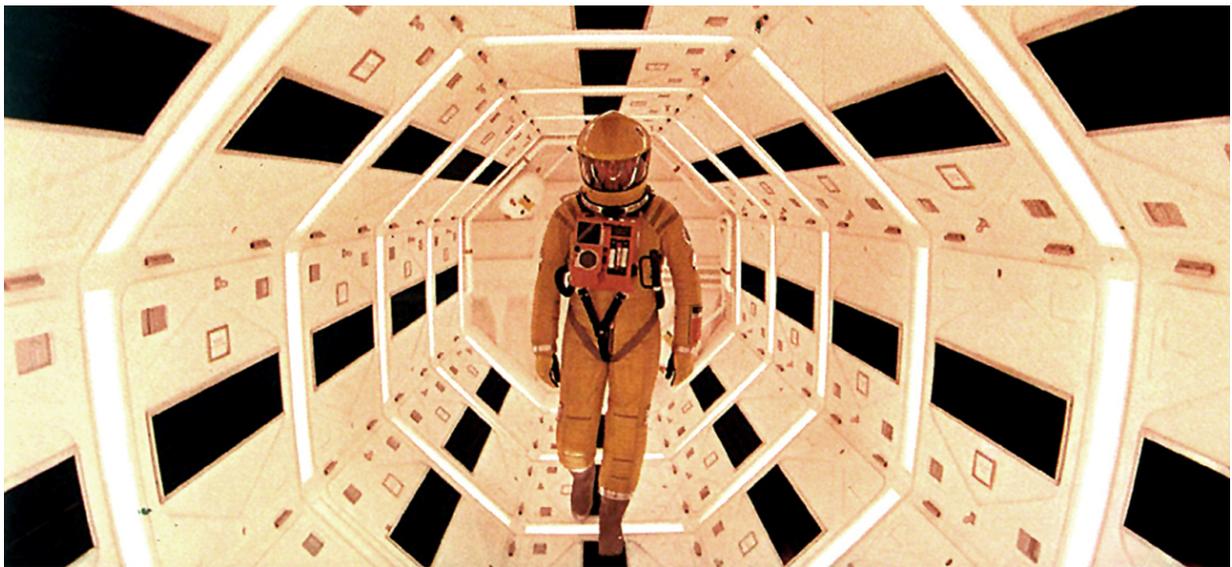
Stanley Kubrick. 2001: *A Space Odyssey* (1968)

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[21] Drawing on Martin Heidegger, Sloterdijk argues that "(…) *Dasein* already brings with him the sphere of possible neighbourhood." Sloterdijk. Op cit., [2003] 2005: 11.
[22] Martin Heidegger. *Being and Time* (1927), trans. Joan Stambaugh, Albany: State University of New York Press, 1996: 103
[23] Heidegger. Op cit., [1927] 1996: 98

Architecture cannot be positioned outside the conditions that it produces. The extended definition of architecture that implicitly runs throughout Sloterdijk's work conceives its activity to be that through which humans produce their own conditions of existence. This, however, does not merely depend on free will. The spheres humans keep drawing and building around themselves to secure their existence are not only subjective bubbles created out of specifically human needs and desires, but rather entire ecological and metaphysical systems implying many assemblages between natural and social norms. From this standpoint, it can be argued that cities constitute one of the most decisive incarnations of the fact that all societies, all cultural entities, "(…) can only be understood as morphogenetic processes that engender themselves".[24] As Hannah Arendt argued, the fact that these morphogenetic processes are self-produced does not mean that they do not possess the same conditioning power as external natural things. The term condition must be understood here both actively and passively. It insists on what conditions architecture *and* on what architecture conditions. The normative conditions in question here do not only refer to social conventions and cultural preferences, but also to the logical and logistical operations that shape specific relations between architecture and the city, and by extension, between the society and the environment.

Inductive architecture

It is through this redefinition of the context as the dialectic of spatial conditioning in which architectural interventions engage that this thesis approaches Koolhaa's work. Arguing that the urban condition seemed to be least understood at the very moment of its apotheosis, Koolhaas has largely participated in inventing new discursive and conceptual strategies to think simultaneously about architecture and urban space.[25] This attention to the

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[24] Peter Sloterdijk. *Globes: Spheres II* (1999), trans. Olivier Mannoni, Paris: Maren Sell Éditeurs, 2010: 176.

[25] Koolhaas writes: "The absence, on the one hand, of plausible, universal doctrines and the presence, on the other, of an unprecedented intensity of production have created a unique, wrenching condition: the urban seems to be least understood at the very moment of its

analysis of urban dynamics is generally seen to include Koolhaas within post-Modernism. Following people such as Robert Venturi and Colin Rowe, Koolhaas can be said to belong to a movement which, in architecture, sought to move away from the abstract and prescriptive models imagined by modern architects such as Le Corbusier and Walter Gropius. At the same time, the movement was more attentive to contextual matters and more favourable to complexity, ambiguities and contradictions.[26] It must however be argued that Koolhaas' obsession for the generic and the programmatic dimension of architecture puts him at odds with this movement.
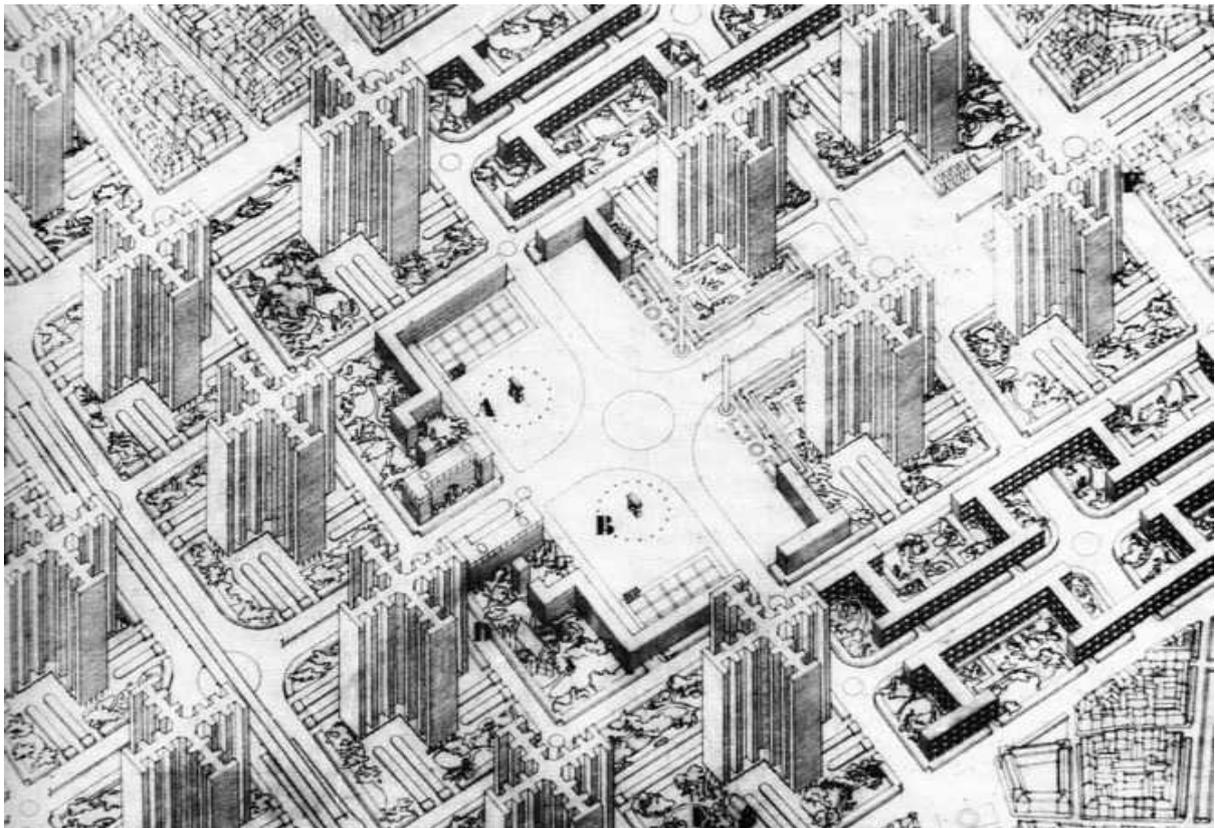
Le Corbusier. *La ville radieuse* (1922–1925)

Koolhaas partakes in what could be called the descriptive turn in architecture. The title he gave to his text on Atlanta — "Atlanta: Journalism 1987/1994" (1995) —exemplifies well this change in perspective. Breaking

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apotheosis." Rem Koolhaas and al. (eds.). *Great Leap Forward: The Harvard Project on the City I*, Cambridge: Harvard University Press/ Koln: Taschen, 2001: 27.
[26] See notably Robert Venturi. Op cit., 1966; and Charles Jencks. Op cit., 2002.

with the long tradition that made architecture relate to the city in either a historical or directive way, Koolhaas argues for the necessity to engage in the description of actual urban conditions.[27] His well-known book on New York — *Delirious New York* (1978) — already presented many similarities with the works of what the French critic and theoretician Sébastien Marot has called *the situated manifestos.*[28] Through this notion, Marot regroups books that seek to derive architectural principles and solutions from the study of a specific city. Colin Rowe's *Collage City* (1978) found its model in Rome, Oswald Mathias Ungers' *Green Archipelago* (1977) found its model in Berlin, and Robert Venturi and Denise Scott Brown found theirs in Las Vegas (1972), while Rem Koolhaas found his in New York.[29] These books emphasise the way architecture knowledge started to draw explicitly on actual cities to deduce certain principles. Architects became visitors. They started to describe before starting to build. They started to collaborate with theoreticians, artists and photographers in order to multiply evidences about the complex environments they approached in the manner of journalists. Although this is generally seen to mark an important separation between the universal and programmatic impulse that drove modernist architecture and the descriptive and contextual attitude defining the postmodern position, it seems possible to argue that Koolhaas' work actually points towards another distinction.

His emphasis on the programme distinguishes his work from the more contextual and situated perspectives adopted by these other architects. While most post-Modern architects can be understood according to the position they took regarding the dialectical opposition between the site and the programme, it seems that Koolhaas' work largely escapes this alternative.

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[27] Koolhaas introduces his work about Atlanta in these terms: "Sometimes [Koolhaas writes], it is important to find out what the city *is* — instead of what it was, or what it should be. That is what drove me to Atlanta — an intuition that the real city at the end of the 20th century could be found there…" Koolhaas. Op cit., 1995: 835.

[28] Rem Koolhaas. Op cit., 1978. For a definition of these situated manifestos, see Sébastien Marot. "Exile on Main Street – a relative manifesto of suburbanism", conference held at Pavillon de l'Arsenal, Paris, 2011:
http://www.pavillon-arsenal.com/videosenligne/collection-6-174.php

[29] Colin Rowe and Fred Koetter. *Collage City* (1978), Cambridge: MIT Press, 1984; Sébastien Marrot and Florian Hertwerk (eds.). *Ungers – The City in the City, Berlin: A Green Archipelago* 1977*,* Lars Müller Publishers, 2013; Robert Venturi, Denise Scott Brown and Steven Izenour. *Learning from Las Vegas* (1972), revised edition *Learning from Las Vegas: The Forgotten Symbolism of Architectural Form*, Cambridge: MIT Press, 1977.

Although *Delirious New York* belongs completely to the descriptive turn and to the list of the situated manifestos that have indexed it, the pragmatic and programmatic trajectory it already defines distinguishes it from the more contextual and situated practice implied by *Learning from Las Vegas* (1972) and *Collage City* (1978). But the descriptive attention it pays to present conditions, from which the programme has to be induced, also distinguishes Koolhaas' trajectory from the more autonomous and abstract programmatic strategies that characterise the practice of people such as Peter Eisenman, Frank Gehry, and contemporary advocates of parametric architecture.

This thesis thus proposes to understand Koolhaas' position according to another, more profound distinction. This distinction operates between what could be called *generative architecture* on the one hand, and *inductive architecture* on the other. I argue that generative architecture is what dominates contemporary parametric and biomorphic practices as notably represented by the work of Frank Gehry, Greg Lynn, or Zaha Hadid and Patrick Schumacher. Although they oppose the prescriptive attitude adopted by modern architecture, this group could be said nevertheless to privilege prescription over description.[30] Seeking to determine architectural principles, solutions and strategies from the analysis of external conditions, inductive architecture constitutes an ensemble that, despite opposing to generative architecture in ways that mobilise the traditional distinction between the site and the programme, however exceeds this dialectical opposition. Exemplified by the works of Koolhaas (from his books to the practice of the Office for Metropolitan Architecture (OMA) and the research projects he conducted at the Harvard Design School), it privileges description over prescription. Not so much concerned with the autonomy of architecture, this second group engages more explicitly in urban research. Although this distinction does not necessarily correspond to one between architecture and urbanism, it defines practices that clearly emphasise the urban dimension rather than the built object. Though it understands architecture from what conditions its practice,

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[30] See notably Patrick Schumacher. Op cit., 2008 and Idem. Op cit., 2010. For an interesting critique of this approach see Owen Hatherley. "Zaha Hadid Architects and the Neoliberal Avant-Garde", in *Mute magazine*, Double Negative Feedback, Volume 3 #1, Spring/Summer 2011: 38-53.

this inductive perspective does not consider the conditions it then produces to be the mere product of external determinations. Rather it considers the buildings and the situations it engenders to be part of the same continuum of forces that condition its practice.
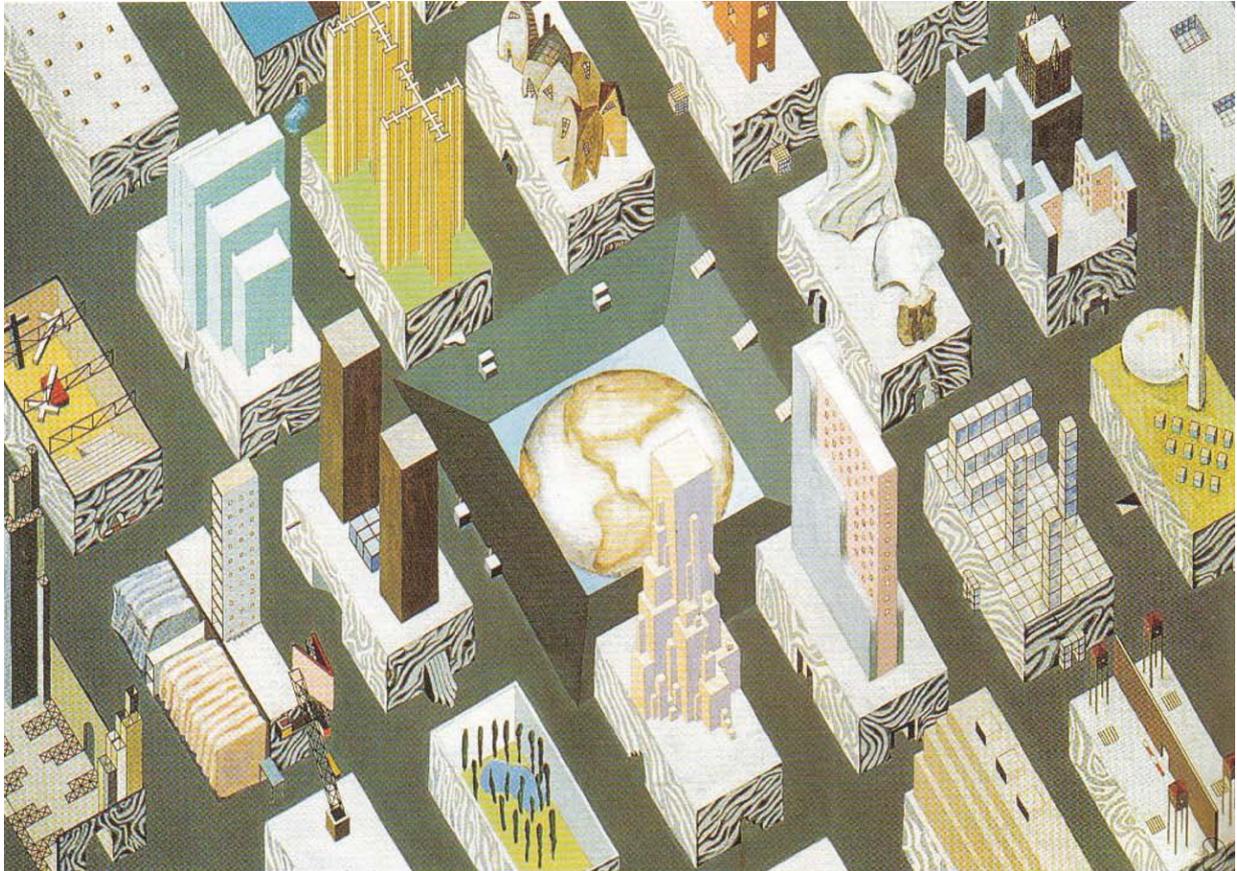
Rem Koolhaas & Elia Zenghelis. *The City of The Captive Globe* (1972)

Here, inductive architecture refers to architectural strategies that tend to consider the programme in conditional terms. The programme is not opposed to the context because the programme is not merely imposed on the situation here, but rather can be understood and induced from the situation. When Koolhaas analyses the impact of shopping on urban organisation, for example, he looks at the way buildings and urban situations have been progressively contaminated by the logic of shopping; the logic can be understood from the architecture, and may then serve to inform Koolhaas'

(or any architect's) practice.[31] This attention to the conditions that simultaneously constrain and determine architectural practice and that architecture in turn produces lays out a continuum that does not only go beyond the traditional opposition between the site and the programme, but also beyond the common opposition made between Modern and post-Modern architecture. In this way, Le Corbusier and Koolhaas are much closer than what is generally argued. Despite what is usually claimed, Le Corbusier is nothing like an abstract formalist. Although abstract and formalist, his language is derived even more profoundly from his analysis of the programme implemented by the industrial revolution. His architectural language could therefore be said to have been deduced from a more profound political project that sought to connect architecture to the industrial revolution. Koolhaas reverses this relation. But it is the same question that dominates his work. The way Koolhaas' work relates to contemporary globalisation and its impact on the urban environment can be seen as more inductive than deductive. However, both share an attitude that is not exclusively generative.

Although deeply rooted in New York, *Delirious New York* also already dealt with the more programmatic drive that allowed the modern encounter between the radical rationalism of the grid and the extravagant superposition of the fantastic worlds of the skyscraper.[32] More than a mere generalised description of Singapore, his well-known text "The Generic City" (1994) must be seen to be an enthusiastic, critical and pragmatic meditation about the

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[31] This example is particularly problematic. The relation between the Harvard project on shopping and OMA's Prada project suggests that the analytical and critical take of the former can be then simply used for the same purposes. This on the mode of irony, radicalisation, and apparent neutrality that gives Koolhaas the possibility, very much like Quentin Tarantino in his films, to give a surplus of cultural and aesthetic value to things that were previously considered rather poor and unsophisticated. And as OMA's work for Prada shows, this only bolsters the current state of affairs (here the domination of shopping over urban organisation) while seemingly subverting it. See notably Rem Koolhaas and al. (eds.). *The Harvard Guide to Shopping: The Harvard Project on the City II*, Cambridge: Harvard University Press/Koln: Taschen, 2002; and Rem Koollhaas. "Junkspace" (2002), in *October,* vol. 100, spring 2002: 175–190. This is the second version of the text. The first version, which is much shorter and excludes many developments, was published in 2000 in *Mutations*. See also Rem Koolhaas/OMA. *Unveiling Prada Foundation,* Milan: Prada Foundation, 2008; and Roemer von Toom. "Architecture Against Architecture: Radical Criticism within Supermodernity", in CTheory.net, 1997:
http://www.ctheory.net/articles.aspx?id=94
[32] See notably Koolhaas. Op cit., 1978: 54–76.

way this modern programme extended and changed under other latitudes and in different times.[33] I would argue that the ensemble defined by inductive architecture allows us to understand that the modernity of modern architecture's programme may in fact be largely exceeding what is generally mobilised in the opposition between modernism and postmodernism. Dealing ith both the analysis and the production of normative conditions that go beyond the traditional scope of architecture, these inductive practices present interesting cases to analyse the ways in which modernity has profoundly transformed the environment in which we live.

Modernity

Following Latour, I would argue that the Anthropocene could be seen to register what modernity has done in practice, whereas what we generally call modernity refers only to the many discursive formulations that, though supporting it, never really grasped what it was doing in practice.[34] Latour distinguishes between modernity in theory and modernity in practice.[35] For him, the former has always mainly been about purification, about producing separated, homogeneous and hermetic domains; whereas the latter constantly produced more hybrids, entities, systems and categories that were increasingly mixed, increasingly complex, multiple and whose boundaries were more often crossed and blurred than firmly established. I would argue that the concept of the Anthropocene may indeed underline what Latour has repeatedly called the unconscious of the Moderns: modernity in practice. From this standpoint, I propose to distinguish between modernity (the continuous process through which the formation we call the Anthropocene has been formed) and modernisation (the discursive and theoretical drive towards progress that shaped the Anthropocene without knowing it).

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[33] See notably Koolhaas. Op cit., 1995: 1249–1250.
[34] Bruno Latour. *We Have Never Been Modern* (1991), trans. Catherine Porter, Cambridge: Harvard University Press, 1993.
[35] Bruno Latour. *Enquête sur les modes d'existence: une anthropologie des modernes*, Paris: La Découverte, 2012. Although an English translation was published this year (see Bruno Latour. *An Inquiry Into Modes of Existence* (2012), Cambridge, MA: Harvard University Press, 2013), I refer to the pages of the original French edition.

Modernisation on the one hand, the Anthropocene and modernity on the other.

This distinction allows us to build an interesting bridge between Latour's conceptual couple of purification and hybridation on the one hand, and Sloterdijk's conceptual couple of immunization and explicitation on the other. Sloterdijk argues that human societies are defined by a constant shuttling between the explicitation of their conditions of existence and the production of immunological spheres of protection. This more general framework allows for a more specific localisation of Latour's contribution. With it, we are able to understand that Latour focuses on the particular moment when both movements of explicitation and immunization become more intense. The more modern sciences unmask natural structures, the more industrial modes of production lay bare both material and social structures; the more entangled technology and military ends become, the more decisive and intense the design of immune spheres of protection become. This connection between Latour and Sloterdijk further allows us to understand the role played by architecture in this process. Drawing on Sloterdijk, I would argue that modernity defines the moment when architecture no longer only stands on the side of immunology, but begins to partake in the movement of explicitation notably triggered by experimental sciences. Following both Latour and Georges Canguilhem, we may argue that, while this double movement can be defined in terms of rationalisation, it is mainly a question of the techniques of spatial organisation.[36] Making increasingly explicit the conditions to which human existence is bound, (modern) architecture is thus understood to have played an important role in the production of increasingly anonymous and indifferent conditions. What I would like to call *the anonymous city* refers to the diagram this rationalisation produced. But it also constitutes the model that conditioned this process of rationalisation.

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[36] See Canguilhem. Op cit., [1963] 1991; See also Latour, Op cit., [1991] 1993
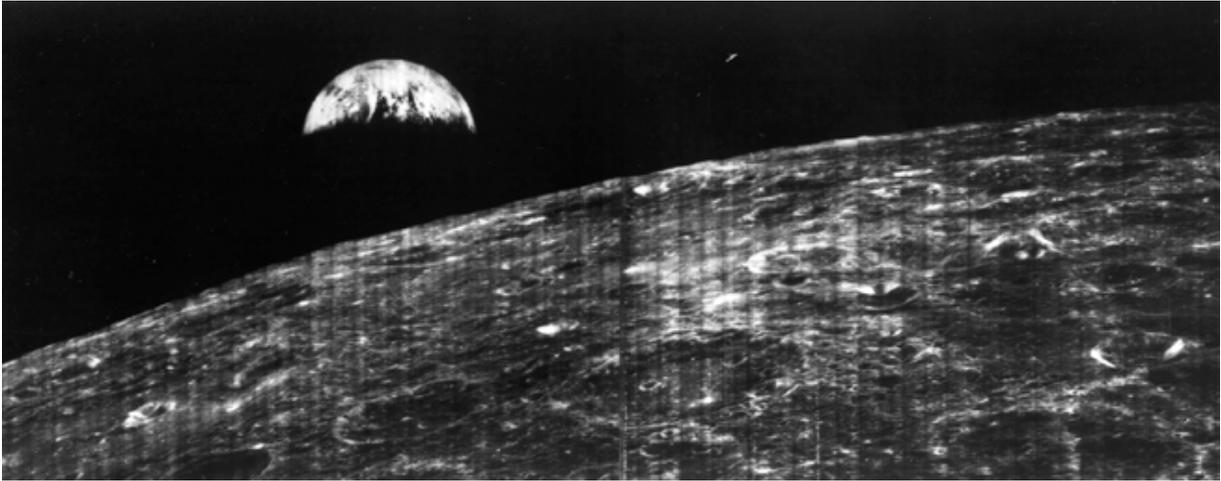
NASA. *First photograph of the earth from the moon, 23 August 1966, 16:35 GMT* (1966)

This relation between anonymity and explicitation might not seem obvious. It could even seem paradoxical, for indeed explicitation may contradict the production of anonymous conditions. Unfolding the project of identifying, isolating and naming things in always more detailed ways, bringing to light and to the fore all the background forces that previously looked like mere noise, the processes of explicitation that mark modernity would seem to be the opposite of what anonymity implies. The perspective adopted in this thesis however argues that, very much like the hiatus modernity created between science and phenomenology, between technical explicitation and human perception, the progressive explicitation of the spatial conditions to which human existence is bound produced some kind of void, some kind of bland interval that continuously, and perhaps even exponentially, grew as things were increasingly named, designated and defined. The urban condition modernity produced continuously escaped the more singular histories in which traditional agglomerations were inscribed. It is anonymous in the way that it progressively escaped the domination of the human subject and that it progressively appeared, in its material and technical dimension, more indifferent to singular definitions and identity than ever before. The anonymity in question here may first address a discrepancy. That is, it addresses that which slips away from the phenomenological gaze; the technical and scientific wounds inflicted on the narcissistic subject. But more

generally, it addresses the fact that the rationalisation of urban organisation progressively escaped particular determinations and local contexts, and thus acquired always more general and generic qualities.

The anonymous city

Unfolding according to standard formats, the anonymous city is the functional and homogeneous city that the Modern movement imagined to be universally reproducible, everywhere and for everyone. But it is also the urban substance produced by contemporary automatic processes, proliferating along infrastructures like pure mathematical products and unfolding like a floating currency that is no longer indexed by buildings alone but by generic protocols.[37] At once the product of the industrial revolution and of contemporary globalisation, the anonymous city is marked both by the disciplined metropolis of industrial capitalism and by the mobile and fragmented urban system of financial capitalism.[38] It makes up the spatial, historical and technical continuum that connects these different models to more profound normative and organisational transformations. As such, the anonymous city is what I understand to be the spatial consequence of modern explicitation.

Like Sloterdijk's foam structures and atmospheres, the anonymous city is "(…) (an entity) whose flagrancy is late, and that only the ability to be manipulated — in the constructive as well as in the destructive sense — called to a thematic and technical career."[39] It could be defined as the ongoing question that the rationalisation of both our spatial environment and conditions of existence never ceased to pose. It is this condition that

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[37] Sanford Kwinter and Daniela Fabricius write: "Boxes — or "buildings without qualities" — proliferate along American freeways and feeder roads as if generated by the same mathematical DNA that engineered the arterial infrastructure itself. This new building logic, like a virus jumping the species barrier, generates not buildings at all but pure generic infrastructures. At once uncommitted and totally flexible they re-conform like a floating currency to any temporary use: from storage facilities to doctor's offices, insurance headquarters or car showrooms." See Sanford Kwinter and Daniela Fabricius. "The American City: An Archival Probe", in Rem Koolhaas and al. Op cit., 2000: 528.

[38] Le Corbusier. Op Cit., [1925] 1987; Rem Koolhaas. Op cit., 1995: 1238–1267.

[39] Sloterdijk. Op cit., [2003] 2005: 57.

informed Le Corbusier's plans for *A Contemporary City* (1925)[40]. But it is also the conditions that the more critical utopias imagined by the radical movements of the 1970s, from Archigram and Superstudio to the models imagined by Constant, addressed both programmatically and analytically. It is what architects have always had in mind when thinking about technical and technological innovation – a city increasingly transformed and translated into numbers and impersonal dynamics. Like the *No stop city* (1970) imagined by Archizoom, it could be defined by a series of generic patterns implemented on a grid.[41] Modularity is its main function, its main ability, and so could be defined, similarly to Musil's character, by all the qualities it does not have.[42] The anonymous city concerns both the programme of contemporary globalisation and the condition we inherit from modernity. Though the attendant realities develop on the periphery of both identified cities and architecture canonical knowledge, they spread underground, expanding from the blind spots of what we generally understand in terms of city and urban life. The anonymous city hence does not only point toward those bland and anonymous spaces created by urban sprawling and defining suburban conditions, but it also points toward the more abstract mathematical DNA according to which contemporary infrastructures are engineered, and that form the basic structure underlying most informational systems. Like a meta-model that is continuous and pervasive rather than super-structural and inclusive, it forms the abstract landscape of concrete information.

[40] Le Corbusier. Op Cit., [1925] 1987
[41] Andrea Branzi. Op cit., 2006.
[42] Robert Musil. *The Man Without Qualities, Vol. 1 & 2* (1927–1942), trans. Burton Pike and Sophie Wilkins, Toronto: Knopf Random House, 1995. Rem Koolhaas makes an allusion to this book in his text on the typical plan, written one year before "The Generic City". See Koolhaas. "Typical plan" (1993), in Koolhaas. Op cit., 1995: 334-353.
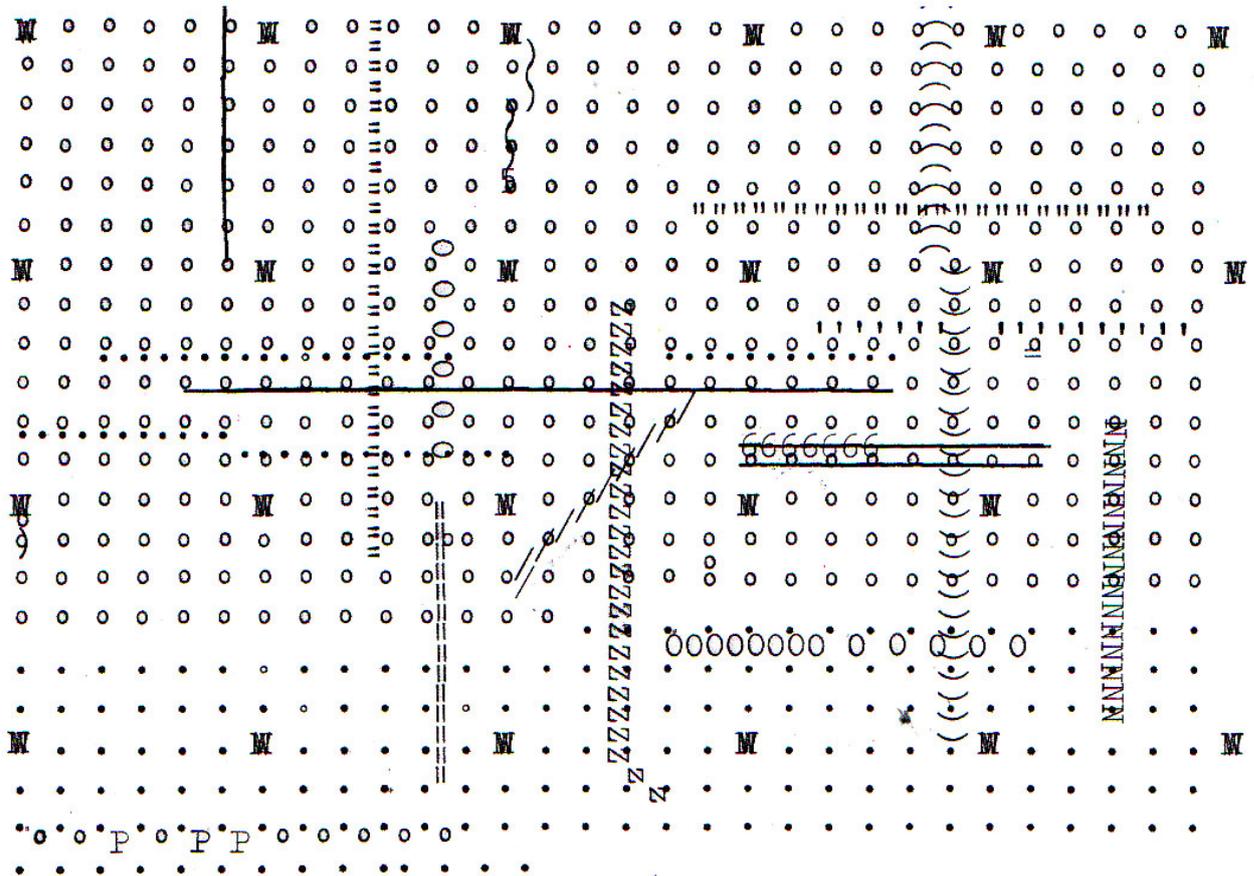
Archizoom. *No stop city* (1970)

During the time it was synonymous with Modern standardisation, the anonymous city could seem simply bland and alienating. The critique of modern architecture generally emphasised the way this huge and monumental city imagined in particular by Le Corbusier corresponded to the disciplinary project described by Michel Foucault, dissolving differences and submitting individuals to meticulous procedures of normalisation.[43] But when normative procedures and organising protocols no longer unfold according to extensive standardisation but rather entail the detailed management of economical, ethical, political and personal differences, the anonymous city gains more positive qualities. The anonymous city expands both horizontally and intensively in domains previously foreign to architecture and urbanism. Former distinctions between natural and cultural dimensions no longer

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[43] Michel Foucault. *Discipline and Punish: The Birth of the Prison* (1975), trans. Allen Lane, Prescott: Peregrine Books, 1977.

stand. Former oppositions between physical and virtual space are no longer valid to describe the complex entanglements to which our contemporary environment is both bound, and of which it is the product. The anonymous city expands beyond anyone's ability to contain urbanisation,[44] but also displays unsuspected generic capacities. No longer strictly planned, it dissolves the traditional opposition between the different and the same, and develops according to dynamics of convergence that exceed traditional standards. It forms a new landscape that, although coextensive with the capitalist economy that it largely indexes, also possibly escapes what can effectively be capitalised and reduced to economic evaluation.[45]

Without necessarily following the most provocative and lyrical comments made by Koolhaas about this contemporary condition, it can indeed be argued that the anonymous city is what expands beyond identities and escapes centralisation.[46] Considering that the active modulation of differences that define contemporary modes of control are becoming increasingly banal and pervasive[47], this thesis seeks to consider both critically and heuristically Koolhaas' provocative hypothesis according to which the move away from difference and toward similarity that characterises the development of the anonymous city may represent a global liberation movement.[48] Dissolving former modes of segmentation, new modes of generic convergence replace the standard homogenisation of separated domains and entities. Normative processes are indeed no longer the same. Articulating natural forces with cultural dynamics in ways that are neither

[44] Jencks. Op cit., 2002: 178

[45] Although I do not necessarily follow the way Marina Garcés identifies anonymity as a figure of resistance, this argument on the new positivity it could take relates to what she argues in her conference: "The Anonymous City: The City and Anonymity", 2010.
http://w2.bcn.cat/bcnmetropolis/arxiu/en/page234a.html?id=23&ui=415
For a discussion of the way the generic may exceed the capitalist structure in which it intervenes, see François Laruelle. "The Generic as Predicate and Constant; Non-Philosophy and Materialism", trans. Eng. by Taylor Adkins, in Levi R. Bryant, Nick Srnicek and Graham Harman (eds.). Op cit., 2011: 237-260. Although I do not necessarily follow Laruelle all the way, and although this thesis does not engage in depth with the complex system he designs, Laruelle's conception of the generic is an important reference for me here, and will be further discussed in the course of this text.

[46] Koolhaas, Op cit., 1995: 1238.

[47] Gilles Deleuze. "Postscript on the Societies of Control" (1990), first published in English in *October*, Vol. 59, Winter, 1992: 3-7.

[48] This provocative positive take on homogenisation and convergence is what opens Koolhaas' famous text on the generic city. See Rem Koolhaas. Op cit., 1995: 1248.

absolutely different nor identical, the logic governing the organisation of what Koolhaas calls the generic city does not only concern cultural formations. Following Keller Easterling, it may be argued that, from the most familiar commercial formulas to the more complex informational protocols, the forces that organise and structure our contemporary environment of existence are not only effective in dissolving differences, but also in enacting capacities for managing these differences.[49] But it must also be added that these differences concern dimensions that can no longer be organised according to the separation made between the universal image of nature (absolute differences that are universal) and the multiple cultural perspectives adopted on top of it (relative differences that are always contextual). Arguing that we must address normative conditions hence means that the critical gesture performed by Foucault towards institutional and later managerial social norms has to be extended to problems that are now both natural and social, cultural and technological. From this standpoint, this thesis argues that the distributed and dynamic configurations that define and organise contemporary co-constitutive relations between society and the environment do not necessarily absorb discontinuities and differences, but rather define a new topological plane of constantly changing deformations.[50]

Not only synonymous with homogeneity and standardisation, today the anonymous city describes converging processes that spread in the interstices of the variations emphasised in the postmodernist model of the Heteropolis. Opposing ambiguity and contradiction to this generalised standardisation, postmodernism is most of the time seen, within architectural culture, to have replaced the modern mode of standardised alienation with the emphasis on much more differentiated, heterogeneous, ambiguous and even contradictory processes. The Heteropolis described by Charles Jencks is seen to replace the

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[49] Keller Easterling. *Enduring Innocence: Global Architecture and Its Political Masquerades,* Cambridge: MIT Press, 2005: 1.

[50] See Deleuze. Op cit., [1990] 1992; Celia Lury, Luciana Parisi and Tiziana Terranova. "The Becoming Topological of Culture", in *Theory, Culture and Society, vol. 29 no. 4-5, September* 2012: 4. Arguing that the topological singularity of the contemporary city must be addressed in terms of meta-agglomeration, Sloterdijk also notably argues that: "The urban macro-foam can only be understood according to its spatial complexion (…) when viewed as a meta-collector gathering gathering places and non-gathering places". See Peter Sloterdijk. Op cit., [2003] 2005: 579.

homogeneous coercive models imagined by the Modern Movement with actual variety, diversity and heterogeneity.[51] Following Gilles Deleuze, this thesis contends, however, that this proliferation of differences is also marked by the formation of new modes of social control that feed precisely on these differences.[52] The Heteropolis is in fact today none other than the incarnation of capitalist logics and logistics. This increasing diversity, this game that plays with contradictory significations, references and irony, is only the logic through which architecture, and spatial organisation more generally, can be seen to index the contemporary development of capitalism. Contemporary cities are no longer ruled and organised according to centralised modes of standardisation and according to the engineering of separated functions. They rather follow the continuous modulation of economic, cultural and subjective differences. This radically transforms the normative landscape: the continuous modulation of the multiple and discrete variables making up contemporary urban life, produces new conditions for anonymity.[53] In these conditions, the anonymous city may no longer be synonymous with alienation and the abolition of subjective singularities, but rather with that which escapes the selective miniaturisation of control procedures. We may therefore regard the anonymous city not as the alientaing legacy left by modernism, but as what should be recalled to rethink about modernity in different terms, and to propose different scenarios for the future.

Generic logics

While it has historically been designed according to the definition of typical functions and their hierarchical ordering, the anonymous city now spread along dynamics that are more topological than typological. The definition of particular functions and categories becomes less important than the continuous process of deformation to which various categories, entities and functions are subjected. The standard typology designed by modernist architecture essentially unfolded according to the dialectics of difference and

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[51] Charles Jencks. Op cit., 2002.
[52] Gilles Deleuze, Op cit., [1990] 1992.
[53] Idem.

identity. From the formal emphasis on styles and symbolic meanings to the actual distribution of streets and the spatial indexation of different functionalities, difference and identity long constituted the operational referent according to which elements were localised and arranged within space. This question has also been central to the debate between Modernist and post-Modernist architecture. Koolhaas has often been regarded as taking a very paradoxical position on this matter, at either extreme of the argument.[54] His text on the Generic City clearly and provocatively praises the move away from difference and toward similarity (1994).[55] His project on the Pearl River Delta region in China (2001), rather emphasises a new form of urban coexistence that he calls the City of Exacerbated Differences© — COED©.[56] But this should not be regarded as contradictory. As he had already argued in *Delirious New York*, it is the homogeneity and the repetition of the grid that allowed the highly differential engineering of the different blocks composing Manhattan.[57] The Generic City expresses the reversal of this programme. With the Generic City, it is the proliferation of differences, the increasing variety of variety characterising the post-industrial city that produces generic outcomes. Difference is no longer the product of repetition. It is convergence that is the product of differentiation.

Drawing on Koolhaas, this thesis contends that this problem may be better addressed in topological terms; that is, in terms of continuous deformations. The question bears on the continuous and discontinuous dynamics that reconfigurate the relations between the general and the particular on the one hand, and the local and the global on the other. Far from merely reversing the dialectical opposition between identity and difference, what Koolhaas calls the generic addresses the continuous operations through which these typologies are constantly reconfigured. Not only emphasising typology in descriptive terms but considering the operating logic that governs these typologies, Koolhaas' project on the Roman Empire — interestingly called Roman Operating System — helps to disconnect the

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[54] Charles Jencks. Op cit., 2002: 180.
[55] Koolhaas. Op cit., (1994) in Idem. Op cit., 1995.
[56] Koolhaas and al. Op cit., 2001.
[57] Koolhaas. Op cit., 1978.

model of the Generic City from a generalised situation presented by cities such as Atlanta and Singapore. It also helps to consider that the Generic City is not a representation or an image, but rather an analytical model centred on the dynamic logics determining the organisation of the contemporary city. It is by following these insights that this thesis seeks to understand how contemporary architecture relates to the anonymous city. It will be argued that this relation comes through these generic operations, and that these generic operations, whether it be their identification or their active operational use, make up the interface through which architecture relates to the contemporary production of anonymous conditions. And this is why this thesis contends that the anonymous city no longer unfolds within the traditional dialectics of difference and repetition but according to generic operations allowing both constant modulation and indifferent variations.[58]

The concept of the generic may thus help us to navigate the complex environment that appears when the modern ground vanishes. The problem may not so much concern the actual description of generic constants in the way modernist architects used to describe standard and typical forms and functions, but rather the rational and normative logic that is implied by the identification and the possible operative usages of generic constants in general. Rather than specify how Koolhaas' text "The Generic City" does in fact accurately represent the contemporary city, I wish here to argue that the complexity of the contemporary city can only be described in generic terms. Instead of specifying new principles according to which local descriptions could be accurately generalised, this thesis seeks to delineate the conceptual and practical operations according to which it is possible to define the descriptive and operational capacities of generic models. Although I do not claim to develop a conception of the generic that would be consistent with a rigorous mathematical and geometrical conception of topology, this thesis does not deal with topology in mere metaphorical way. Beyond Koolhaas'

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[58] Rem Koolhaas notably argues that: "The Generic City is the apotheosis of the multiple-choice concept: all boxes crossed, an anthology of all the options." Koolhaas. Op cit., (1994) in Idem. Op cit., 1995: 1253. But this definition of the generic in terms of indifference to difference more closely draws on François Laruelle. See François Laruelle. Op cit., 2011. This article presents a summarised version of what is developed in Francois Laruelle. *Philosophie non-standard : générique, quantique, philo-fiction*, Paris: Kimé, 2010.

conception of the generic in terms of homogeneous heterogeneity, this thesis seeks to delineate the conceptual coordinates according to which generic operations could be defined topologically.

Understood in continuity with modern standardisation, the concept of the generic does not substitute another dialectical opposition, but rather unilaterally privileges convergence over difference. Analysing the relation that architecture entertains with the production of the modern city according to this notion means that these terms should not be opposed but rather understood on different but connected planes. From this standpoint, what I propose to call the anonymous city also indexes these contemporary dynamics of urban convergence which, far from opposing homogeneity and differences, rather orchestrate the continuous articulation of heterogeneous assemblages and processes.

This general logic informs the structure of this thesis. First it asks whether the generic simply repeats the logic of standardisation: how is the generic different from the standard? How does that underline the formation of another type of anonymous city? It then asks how it does more than mirror the modular dynamics in which Deleuze saw the advent of a society of control. How does the continuous articulation operated by the generic differ from this universal modulation of control? This can only be answered following another major question: what are these convergences and continuous lines that the concept of the generic may permit us to identify? And finally: how can they help us to navigate the complex landscapes of the Anthropocene? This thesis explores these questions genealogically. Starting with modern standardisation, it focuses on the rational dynamics that have historically shaped the relation between architecture and the anonymous city. The first chapter focuses on the rational continuities we may establish between these precedents and the later models imagined by the different radical movements in architecture in the '60s, before more explicitly moving to Koolhaas' work on the generic and the generic city. The second chapter brings a second layer of complexity by examining these questions in relation to normativity. It explores the rational constructions that determined

architecture's relation with the anonymous city as well as the normative principles, logics and questions that these entailed.

The third chapter investigates the ways in which these questions can be tested in relation to the polemics that recently arose in architectural and urban theory about Lagos, the former capital of Nigeria. Lagos is one of the cities that grow and change the fastest today. These dynamics alone are almost unprecedented in history. They bring problems that European urbanisation never experienced. Much more continuous and much slower, European urbanisation did not transform any city the way in which contemporary dynamics of urbanisation do in the Global South. In Lagos, this has been rendered even more problematic and chaotic by its conjunction with military dictatorship, large scale corruption, harsh environmental conditions, and a long lasting economic crisis that followed the oil boom that the country experienced immediately after the independence of the country, in 1960. Lagos does not only present multilayered levels of complexity, but also multilayered dysfunction. As such it could seem totally alien to the subject of this thesis. The connection is not only made by the fact that Koolhaas' conducted one of its most important research project about this city, but by the idea that, although Koolhaas emphasised on informal dynamics, it was in these highly chaotic and dramatic urban conditions that the descriptive and normative qualities of the anonymous city could be best tested. Contrary to cities in which the generic could be very easily confused with standardisation, the complex dynamics that Lagos is facing may be more suited to see to what extent the generic emerges from highly differentiated and chaotic dynamics.

Considering that the generic is always an emergent abstraction, this thesis seeks to disentangle its definition from the universal movement of modern standardisation it could be identified with. The implicit argument here is that the generic quality of the anonymous city, indexed by particular models, may be considered a vector of social and political emancipation from the current multiscalar crisis that we face. No longer identifiable with the standard rules that characterised the old modernist project, this thesis ambitions to contribute to the definition of "a new modernism". Following

François Laruelle, it will be shown that the subtractive operations that determine the specific locality of the generic cannot be reduced to the average definition of prescriptive standards.[59] Although the generic does not escape the standard procedures determining the expansion of contemporary capitalism, it must be argued that it does however not only introduce a difference, but that by ultimately resisting capitalisation, the idempotent operations that it produce may contribute to transforming the normative structure in which it intervenes.

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[59] Francois Laruelle. Op cit., 2011: 239; 252.

CHAP 1

RATIONAL CONTINUUMS

This thesis argues that the anonymous city is foremost a rational construction. It corresponds to the model imagined by modernist architecture, that is, to what modernism imagined to be the city of the future that architecture should built. More than to any particular model, it unfolds primarily according to the way modernism understood the rationalisation of urban organisation. This first chapter starts by focusing on the internal logic that commands the way modernist architecture engaged with the question of standardisation. This will be explained through the conceptions of two main figures of the Modern Movement: Le Corbusier on the one hand, and Walter Gropius on the other. I will then move on to describe how the critique of standardisation has lead postmodernism to not only imagine a different relationship to the diversity of urban dynamics they engaged with, but also led to a relatively paradoxical retreat from this relation. Postmodernism replaced this relation with an emphasis on architecture's autonomy. From this standpoint, I argue that the recent debate around the development of parametric architecture and what is generally referred to in terms of non-standard architecture displays a general disengagement from the urban problematic, and that it is why I think that Koolhaas' work on the generic appears decisive to the possible reconceptualisation of architecture's relation to the city. Paying attention to the models imagined by the radical movements that arose in the 1960s and 70s, I contend that the continuous engagement of architecture with the city has always been formulated in close relation to modernism. Arguing that it is to these continuities that Koolhaas'

work on the generic city relates, I contend that his account nevertheless points towards another model.

1. Standard Urbanism

Following the great divide that Alfred North Whitehead identified in terms of the bifurcation of nature, Modern architecture was built namely on the strong separation it aimed at securing between nature and the environment built by humans (culture).[60] But it has even more decisively grounded its programme on the idea that it was possible to identify humankind's universal and standard needs, and that architecture should build houses and cities that would correspond to these general and universal measures. The standards to which Modern architecture referred were not only statistical averages, but also ideal proportions determined by what they understood to be natural human standards. Contending that it was possible to conceive of human nature in standard terms, Modern architecture considered that it had found in Man the principle according to which architecture could, in following simple principles and an elementary grammar, ameliorate humanity's conditions of existence. Industrial means of production did not provide these measures themselves, but they were seen to implement the means according to which the universal could become reproducible. It according to this general idea that Modernist architects imagined the city of tomorrow. Divided according to basic functions, organising fluid means of circulation between them, this city was not only meant to provide better conditions of existence, but to also propel humanity into industrial and cultural progress. According to them, the disastrous consequences of uncontrolled and unplanned urbanisation was to be countered with rational plans to build cities that would harmoniously integrate every class of society. Their concerns for getting rid of the slums in which the working class was dramatically concentrating was never truly connected to any critique of industrialisation

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[60] See Isabelle Stengers, Michael Chase & Bruno Latour. *Thinking with Whitehead: A free and wild creation of concepts.* Cambridge, Mass: Harvard University Press, 2011; Alfred North Whitehead. *The Concept of Nature* (1920), Dover: Dover Publications Ltd., 2005; Bruno Latour. Op cit., [1991] 1993.

per se. For Le Corbusier, the chaotic and humanly disastrous situation prompted by the exponential developments of industrial cities during the nineteenth century was not the result of the industrial revolution, but were rather the dramatic results of both its miscomprehension and its mishandling. Following Sloterdijk, it could be argued that his architectural programme unfolded according to the need for architecture to understand what industrialisation was making more explicit and, at the same time, develop adequate instruments and techniques to counter its disastrous effects. And it is according to this reformist agenda that the profound political, ideological, social and cultural valorisation of standardisation that Modernist architects such as Le Corbusier and Walter Gropius argued for should be read.

1.1 The cultural valorisation of standardisation

For modernist architects such as Le Corbusier, the anonymous city hence appears to be a desirable model. Exemplified in his plans and descriptions of *A Contemporary City* (1925), the anonymous city can be built everywhere and for everyone.[61] *A Contemporary City*, already anonymous in its name, is designed to accommodate three million inhabitants. But it is made further anonymous by its definition, which Le Corbusier proposes according to two different orders of arguments: the first refers to what he calls human standards, the second to history and statistics. On the one hand, Le Corbusier imagines this city to suit any individual. On the other hand, it explores history in order to identify constants and universals that can be corroborated by the statistical definition of average values. Following this, Le Corbusier wants to define a rigorous theoretical model according to which it would be possible to define fundamental principles for a modern urbanism.[62] There are the same anonymous rules that govern Ludwig Hilberseimer's *Grossstadtarchitektur* (1928).[63] Breaking with tradition, the harmonious

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[61] Le Corbusier. Op cit., [1925] 1987.
[62] Le Corbusier. Op cit., [1925] 1987: 158.
[63] Ludwig Hilberseimer. *Metropolis Architecture and Selected Essays*, Edited by Richard Anderson and Pier Vittoro Aureli, New York: Columbia University GSAPP Sourcebook, 2012.

metropolis desired and designed by Modern architects is a universal model. Reproducible anywhere and for everyone, it is seen to provide a rational solution to the many problems posed by the uncontrolled and unplanned development of industrial cities. This commitment to universal standards is what drives their positive valuation of anonymity. For them the standard does not deprive individuals of their singular attributes, but rather it identifies elementary structures that could suit everyone. Easily reproducible, more simple and functional, the standard represents minimal conditions that, for most architects of the Modern Movement, do not represent a minimisation of existence, but a maximisation of possibilities.
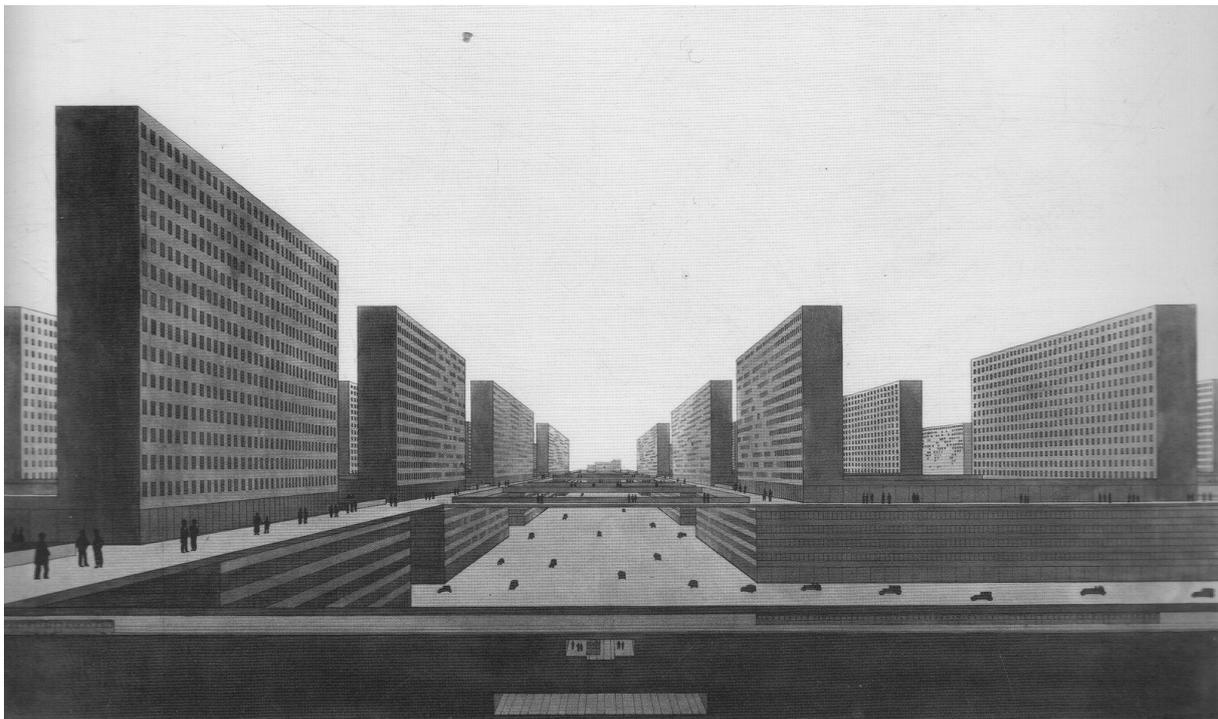
Ludwig Hilberseimer. *Grossstadtarchitektur* (1928)

This is visible namely in the way Walter Gropius valorises industrial production. The conference he gave in 1926 at the German Congress for Normalisation, "Normung und Wohnungsnot" (1926), develops precisely this argument.[64] He starts by arguing that while architecture still builds as it did

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[64] Walter Gropius. "Normung und Wohnungsnot" (1926), revised version edited in Walter Prigge. *Ernst Neufert : Normierte Baukultur im 20 Jahrundert,* Francfort Am Main, 1999. See

in Middle Ages, the current industrial model provides many examples of the positive consequences of rationalisation in the domain of utilitarian objects. The necessity to conceive of a standard programme for architecture derives for him from the fact that the industrial model proves able to produce objects of better quality at a better price and following procedures whose simplicity does not lead to similarity but entails great possibilities of diversification. In his work "The Housing Industry" (1924), Gropius argues that standardisation should not be applied to entire houses, but only to their component parts. These internationally standardised parts can then be assembled in different ways. They can be used to produce different types of houses. Standardisation hence does not lead to any identical repetition. It only homogenises the production of interchangeable component parts.[65] This articulation between standardisation and diversification is crucial to understanding why modernist architects do not consider homogenisation to be synonymous with alienation. While many critiques have since then focused on the way in which Modern standardisation could be seen to deprive individual of both their particular attributes and aspirations, architects such as Gropius and Le Corbusier actually consider that it supports individual and collective development. Standardisation builds common denominators. It does not prevent diversification but on the contrary builds new common grounds on which variety can flourish. The many examples Le Corbusier presents in *Towards an Architecture* (1923) — from the liner boat, the car, and the airplane on the one hand; to bridges, silos, and factories on the other — emphasise this industrial logic. The variations they display in volume, function, and form do not contradict their typological order. Differences only exist between different orders, between different functions: the car cannot be similar to the airplane, while the factory cannot be designed on the model of the bridge. But all bridges possess a common

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also Walter Prigge. "Moderne, Norme, Standard", in Zeynep Mennan and Frédéric Migayrou (eds.). *Architecture non-standard,* Paris: Éditions du Centre Pompidou, 2003.

[65] Gropius argues: "The organization must therefore aim first of all at standardizing and mass-producing not entire houses, but only their component parts which can then be assembled into various types of houses, in the same way as in modern machine design certain internationally standardized parts are interchangeably used for different machines." Walter Gropius. "The Housing Industry" (1924), in *The Scope of Total Architecture,* translated from the German by Roger Banham, New York: MacMillan Publishing Company, 1980: 47.

structure. They share formal similarities that are neither symbolic or cosmetic but that are fully consistent with the function they perform. Homogenisation cannot be a problem since it only corresponds to the accurate correspondence between form and function, and does not prevent diversification. Diversification exists between entities that have a different function, but not between form and function. This is why the homogenisation of all forms that correspond to a similar function appears to them to not be a problem, but appear rather as progress on both levels. Industrial production is not only valorised for providing new building techniques. For both Le Corbusier and Gropius, standardisation appears to be a vector of civilisation. According to them, standardisation is cultural progress. Gropius argues that type does not restrict the development of culture, but on the contrary conditions it. Far from entailing violence inflicted to the individual, standardisation elevates the individual subject beyond private interests. In his 1926 conference, Gropius clearly argues against the idea that standardisation limits individual expression.[66] According to Gropius, alienation does not belong to type but to the submission of collective organisation to particular interests. Alienation does not belong to the homogenisation and standardisation prompted by industrialisation, but on the contrary to particular interests and subjective preferences. "The typical carries the best", Gropius continues. "It separates the elementary, the supra-individual, from the subjective…" The typical, the elementary, the standard, are all synonyms of individual elevation. Through them, the individual is elevated to the supra-individual, to the collective and universal condition in which he participates. The link with the industrial revolution is again attested by Gropius when he finishes by saying that, very much as with the clothes we wear, repetition of the same elements does not only produce calm and harmony, but is a vector of cultural development: "The type has always been

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[66] Gropius argues in this conference that: "the hypothesis according to which the industrialisation of architecture entails a violence inflicted to the individual and the defacing of the constructive form of the building is totally wrong. It is only the result of the schematic and misconceived application of types that still conserve a subjective character, or that are the product of secondary economical interests of isolated groups." Walter Gropius. Op cit., 1926. I refer here to the French translation, as reported in Walter Prigge's artice. See Walter Prigge. Op cit., 2003: 50.

inscribed within the civilisational order of the social. (…) Who buys a car today would not think to ask for it being made-to-measure…".[67]

Standardisation clearly appears to modernist architects to be a synonym of cultural elevation. The standard points towards something that is beyond subjectivity, something that is beyond individual interests, articulating its existence to the standard needs and measures that are considered to be universal. Industrial standardisation can be seen to mediate the relation between the individual and the universal. Modernist projects always consider the collective from the perspective of the individual. This is why for them houses are so important; this explains why the mass construction of houses in series appears so determinant. They constitute the elementary units of the anonymous city. One could argue that for both Le Corbusier and Gropius, the progress of humanity starts at home. It starts at this nuclear and individual level which, insisting on standards rather than on particularities, already manifests its collective and universal dimension. For these architects, standardisation is hence not only a question of building techniques. While they emphasise technical details, it is only to the extent that for them, these techniques, this possible rationalisation of the art of building, corresponds to a progressive programme for humanity. Standardisation is a humanist programme.

1.2 Architecture and revolution

One must keep in mind that for architects such as Le Corbusier and Gropius, formal simplification is only the translation of industry's solution to the general problem of mass production. This problem is at the heart of Modern architecture. It is in fact primarily social and political, and specifically concerns the question of housing the masses that were concentrating in the cities where most industries and factories were located. Although Le Corbusier seems the perfect promoter of the kind of abstract universalism for which Modern architecture has primarily been criticised, it is impossible to understand his project without acknowledging the specific relation it

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[67] Idem.

entertains with both the industrial revolution and the question of social and political revolution.

    For Le Corbusier standardisation represents for architecture a social and political programme. Fascinated by the industrial revolution, Le Corbusier nevertheless also considers its more dramatic consequences. *The Athens Charter* (1943) draws largely on these problems.[68] From congestion to bad hygiene conditions, from pollution to the absence of natural light and from lack of decent housing space to the critique of the way industrial cities are organised more generally, the problems he references are not very different from those denounced by Charles Engels in Manchester at the beginning of the 19th century.[69] This however does not lead Le Corbusier to the same considerations. Contrary to the way Engels identified these problems with the development of industrial capitalism, Le Corbusier seems almost completely to dissociate the industrial revolution from any analysis of capitalist economy. According to him, the problem is not industrial development, but the revolutionary dimension it takes. Humanity was not prepared for these revolutionary changes; the transformations were too dramatic and too fast in coming. Society has dramatically changed. But architecture has not changed the way its builds and imagines the city. The consequence is that people live under conditions that do not correspond to their time. Well aware of the fact that this discrepancy threatens to trigger an important social revolution, Le Corbusier considers the standardisation of architecture to be the solution to at once accommodate those changes and avoid political revolution.

The last chapter of *Towards an Architecture* articulates this idea very clearly. While favourable to the industrial revolution, Le Corbusier criticises its negative consequences and fears a social revolution. He argues: "(…) in all domains of the industry, we have posed new problems and created tools and instruments capable of solving them; if we place this fact in front of past

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[68] Le Corbusier. *The Athens Charter* (1943), trans. Eng. Anthony Erdley, New York: Grossman Publishers, 1973.
[69] Charles Engels. *The Condition of the Working Class in England* (1845), Trans. Florence Kelley, Leipzig: Otto Wigand, 1887.

conditions, there is a revolution."[70] The question for architecture is to accommodate this revolution. It is to reconcile people with these transformations which, chaotically introduced, have deprived them of their former conditions without producing new ones. For Le Corbusier, architecture becomes the instrument according to which the technological and industrial revolution can avoid turning into a social and political one. Contrary to Haussman, Le Corbusier does not seek to stop or prevent the revolution. According to him, the main purpose of architecture is rather to provide the conditions according to which there would be no need for a social revolution. Le Corbusier is not politically conservative, but rather fully endorses Modern reformism. For him it is not architecture against revolution but architecture *or* revolution as the title of this last chapter of his book suggests.[71] The industrial revolution seems to have unleashed forces that go beyond the scope of humans. "Human tools were always *in the hand of man:* today, (Le Corbusier argues) totally renewed and formidable, it momentarily escapes our grasp."[72] The technical transformations he praises seem beyond humans' ability to incorporate and control them. This is what he calls the "acephalous mechanisation", the "laisser–faire".[73] And this is what architecture has the duty to tackle. Not architecture as it were, concentrating on style and tradition, the architecture of palaces. But the newly formed industrial architecture, the architecture of engineers, the architecture of bridges and factories, the design of cars and airplanes. His praise for typical functions and standard forms has hence nothing to do with style. But rather everything to do with the profound task of domesticating these new forces, with the crucial task of bringing technical progress to the masses and preparing humans to acknowledge it.

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[70] Le Corbusier. Op cit., [1923] 2008: 229.
[71] Le Corbusier. Op cit., [1923] 2008: 237, 243.
[72] Le Corbusier. Op cit., [1923] 2008: 229.
[73] Le Corbusier. Op cit., [1943] 1973.

1.3 The typological logic of standardisation

This task bears entirely on the promises of industrial standardisation. From the individual to the collective, from the bedroom to entire cities, Modernist architecture imagines integrated models aiming at improving living standards. This integrated model appears clearly in the programme that defines the Bauhaus. Promoting a new form of industrial art, the Bauhaus largely invented what we know call design. From chairs and bedrooms to entire buildings and cities, it imagines strategies to transform the whole environment in which we live. It is possible to argue that, following the conceptual apparatus developed by Sloterdijk, the Bauhaus seeks to integrate both movements of explicitation and immunisation. While this goes for the entire project of the Bauhaus, it is particularly visible in the famous building Gropius designed to host the school in Dassau. Completed in 1926, the building can be read as a manifesto. The different components of the school are distributed hierarchically and separated in what however appears to be a unified structure. Huge floor plans with no partitions host the different workshops. Although it has suffered some practical modifications, the main facade was originally entirely made of glass, making it a large glass curtain seemingly floating around the structure. The administrative office is located in a bridge that does not only connect this part of the building to the more classical part that host the technical school, but also dominates the whole structure. On the other side of the building, a collective space is dedicated to public events. Opened on both sides, this part of the building is a place where everybody can meet, and leads to the studios where students live. These studios are individual rooms. All alike, they also all possess their own individual balcony. The entire building encapsulates the major principles defended by Gropius and the Bauhaus. Everything at its right place, designed according to its particular functions, and matching a specific typology. Yet these components are also integrated into the same unified structure, all connected by large, bright spaces enhancing both circulation and possibilities for interaction. From the large open plans where the workshops are, to the studios where the students live, individuals are made part of a

large collective to which they are integrated on the basis that they all share the same needs.

This harmonious principle of integration is also what defines Le Corbusier's engagement with standardisation. Defining human standards to be the ultimate measure of architecture, his Modulor gives the general logic directly connecting the most detailed aspects of the Unité d'Habitation to the urban plans defining both *A Contemporary City and The Radiant City* (1922–1925).[74] The Modulor integrates both aspects: the individual and the collective. As a universal measure, it is seen to suit everyone. That is, anyone in particular, and everyone in general. The Modulor defines the basic structure and standard measure of the ideal house, but also specifies that it should be considered to be a machine. For Le Corbusier a house is not an object, but a housing machine. And it is in terms of a machine that, like cars, airplanes and factories, a house is reduced to its essential functionalities and proportions. It is essentially composed of five rooms – one for cooking and one for eating; one for working, one for washing and one for sleeping. Each room is defined according to the specific functions it is dedicated to, provided that there is enough space to move freely. Very much as with the Bauhaus building, the entire structure is at once divided into different and separated parts, and unified as a whole.[75] Very much like the engineer defines a certain number of elementary technical elements and constraints to form the standard solution according to which it can be reproduced, Le Corbusier defines a certain number of living standards, from which he will derive the best-suited architecture. This becomes evident when reading his "Housing Manual", published in *Towards an Architecture.* All the housing problems he identifies in *The Athens Charter* and that inform his grand architectural project are there: hygiene, congestion, lack of light, noise, pollution… But they are presented together with solutions made possible by industrial development.[76]

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[74] Le Corbusier. *The Modulor: A Harmonious Measure to the Human Scale, Universally Applicable to Architecture and Mechanics* (1945)*,* Basel & Boston: Birkhäuser, 2004.

[75] Le Corbusier. Op cit., [1923] 2008: 89–90.

[76] Le Corbusier compiles a series of different requirements that inhabitants should ask for their home: "Ask for a bathroom in full sunlight, one of the biggest rooms of the flat, the former living room for example. The wall will be made of windows opening onto a terrace

Very much like industrial production implies the possibility of formalising both the product and the process of production in ways that can be repeated, the architectural programme defended by Modern architects such as Le Corbusier and Gropius implies the possibility of defining both standard objects and standard procedures. Focusing on the Modulor, the logic of standardisation essentially functions through the absolute distinction of different types on the one hand, and the linear articulation of typological variations on the other. This double aspect of standardisation is what constitutes the possibility of considering planning in deterministic terms. The Modulor explicitly seeks to provide this measure that, at once essential and fundamental, would be at once standard and ideal.[77] For Le Corbusier, the standard proceeds from the necessities of the series. Exemplified by the automobile industry, standardisation operates the synthesis between the necessities of serial production and the perfectibility of the relation between form and function. The great achievements of the automobile industry are compared to the perfection of the Parthenon, while they are both related to the harmonious and fundamental order that Le Corbusier ultimately identifies in human nature.[78] The Modulor is ultimately very close to the Vitruvian Man. It is the standard measure of the Modern Man, its anonymous incarnation. And it is this standard measure, at once the ideal and the universal measure, that represents the essential and elementary unit according to which the entire city should be built and organised.

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where it will be possible to take sun baths. (…) Ask for a large living room instead of many private rooms. Ask for the vacuum. Buy only practical furniture and banish decorative furniture. Go to the old castles see the bad taste of the great kings. (…) Teach your children that the house is only habitable when light is abundant, when the floors and walls are clean. To keep your floors well, remove unuseful furniture and oriental rugs. (…) Ask your landlord to provide you your own car garage, with room enough to put a bike and a motorbike for each flat. Rent flats at least one time smaller that the ones you used to live in with your parents. Consider the economy of your actions, your orders and your thoughts." Le Corbusier. [1923] 2008: 96.

[77] Le Corbusier. Op cit., [1945] 2004.

[78] Le Corbusier. [1923] 2008: 115.

Le Corbusier. The Modulor (1945)

The oscillation between the universal, the ideal, the standard, the average, and the typical, defines the hesitation that characterises modern standardisation and the modern typology. As was already the case in the work of Jean Nicolas-Louis Durand in the nineteenth century, standardisation essentially draws linear chains and series defined in terms of difference and identity. This appears clearly in the planning theories of Ernst Neufert and Alexander Klein. On the one hand, standardisation defines relations of similarity according to an ideal model that can be replicated identically. On the other hand, it defines incommensurable differences between different ideal types that are defined according to specific functions. As it has been explained before, Le Corbusier defined his plans for *A Contemporary City* according to two different orders of considerations: the first refers to what he calls human standards, the second to historical and statistical analysis. His conception therefore entails the articulation of two very different considerations of what standards are. On the one hand they are considered to be ideal and essential attributes, while on the other hand they are seen to

correspond to average behaviours.[79] This oscillation appears even more clearly when comparing the two books written by Ernest Neufert in 1936 and 1943. Both published in Germany while Nazis were in power, these two books pose important questions about the links and connections it is possible to make between modernism, standardisation and the Bauhaus on the one hand, and the role played by Nazi architecture in the Nazi party's plans to create a cultural and spiritual order based on immemorial nationalism and racial fundamentalism. Neufert had been the student and assistant of Gropius at the Bauhaus. Between 1926 and 1934, he was an influential member of two schools that, close to the Bauhaus, were forced by the Nazis to shut down. The first book, known in English as *Architects' Data,* was published in Germany soon afterwards.[80] This book is both an anthology and a comprehensive manual of Modern architecture. Having since then been progressively revised and updated through almost forty versions and translated in many languages, it is required reading in architecture schools still today. Looking for norms that would be neither defined in absolute terms nor simply according to tradition, Neufert's 1936 seminal book draws lists, sketches and diagrams that are essentially defined in average terms. Looking for an ultimate measure, the second book proposes very different conceptions. Closer to the ideal than to the standard in ways that do not seem so different from what Le Corbusier develops in the Modulor, *Bauordnungslehre* (1943) proposes to unify these average standards according to a unique ideal measure. This marks another threshold. Standardisation no longer allows the multiplicity of standards, but tends to consider a unique and absolute measure. While this book is largely out of print and difficult to access, what Neufert proposes in it appears even more problematic when considering that he had by that time been appointed by

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[79] Walter Prigge notably argues that: "The theory of plans, from Alexander Klein to Ernst Neufert, analyzes new industrial modes of existence, defines in terms of average value the spatial needs of a typical and ordinary individual, and translates the vital space required by daily activities in typical housing schemes, that are now defined by the measuring of statistical averages." Walter Prigge. Op cit., 2003: 48.

[80] Ernst Neufert, Peter Neufert, Bousmaha Baiche and Nicholas Walliman (eds.), *Architects' Data* (1936), fourth edition, London: Wiley-Blackwell, 2012.

Albert Speer, Hitler's official architect, to work on the standardisation of German industrial architecture.

This problematic relation between modernist ideas and the totalitarian project is not new. Many times analysed, quite explicitly drawn by Italian futurism in relation to Mussolini's Fascist regimes, this relation has also tainted in turn many modernist conceptions. Le Corbusier appears here to be a very problematic figure. Although it cannot be said to the same extent as with Neufert, the difference between the active and experimental measuring of standard according to average values and regularities, and the definition of some universal and ideal model that could be seen to be simultaneously inclusive and fundamental is a constant hesitation in Le Corbusier's work. In *Towards an Architecture,* the definition of human standards is still very much subjected to an analysis that, though not necessarily critical, entertains at least an analytical and descriptive relation with the conditions prompted by the industrial revolution. In *The Modulor*, however, Le Corbusier clearly relates this to the idea of some universal and ideal unifying value. This hesitation is in fact already present within *Towards an Architecture,* where Le Corbusier writes on the same page that: "We must aim at establishing standards to cope with the problem of perfection"; and that: "Standards are logical things, they depend on scrupulous studies and analytics; they bear on problems that are well posed. Experimentation fixes the standard definitively." [81]

Despite this oscillation, it is possible to argue that Modern standardisation connects more generally to modern rationalisation by providing at once reliable models and linear chains of reproduction. While the question of knowing how standards are fixed and established necessitates an analysis of the normative dimension they entail (I will address this in the second chapter), it must be said that what is important here is the way Modern standardisation provides a determined and linear schema according to which the production and reproduction in series is not only possible, but as we saw for the architects of the Modern movement, desirable and a source of cultural development. It is quite easy to understand the

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[81] Le Corbusier. Op cit., [1923] 2008: 103, 105.

decisive elements that standardisation provides to urban planning. It gives planning a deterministic law, determined mechanically, with variation in scale alone. It gives a constant, and determines a linear articulation similar to Russian Matryoshka dolls — from the smallest part to the biggest, the causality is linear, and each element reproduces another on a larger scale. Planning can be entirely determined. Because standardisation implies mechanical and linear causation to elements that only decisively vary in scale, the plan becomes a predictive scenario. This predictive element is perhaps what Modern architects were the most confident about. It is the element that made their inductive approach compatible with a prescriptive attitude. The main problem is that standardisation is considered to provide a determined law according to which it was possible to understand the relation between the model and the situation, between the past, the present and the future in linear and progressive terms. In the end, both Le Corbusier and Gropius ask the same question: what will ensure this continuum between the basic proportions and needs of the human body, serial production, and the mathematical ideal they associate with the laws of nature? What will facilitate the process of building as a whole, from conception to construction? What will ensure the harmonious correspondence between furniture and houses, and between houses and entire cities? This unresolved question may in fact lead us to consider that, while all modernist architecture cannot be said to be ultimately Fascist, the question of standardisation posits a relation between the individual and the collective that is necessarily linear, mechanical and holist. In doing so, it could provide interesting instruments to political regimes that sought to have a total and organic hold on people.

2. The Complex City

This uneven connection certainly constitutes an important landmark in the critiques modernist architecture later received. Exemplified by Robert Venturi's, most critiques mainly reject the machinist rationality endorsed by

modernist architecture.[82] Although they mostly argue that the problem with modernist architecture lay in the way it had oversimplified form, it can also be argued that that the rejection of modernist architecture more implicitly followed the rejection of these dramatic connections between modernist purism and standardisation on the one hand, and the political projects of totalitarian regimes on the other.[83] The problem does not only lie in actual and biographical connections, but may exist more profoundly in the way the logic of standardisation, valorised and promoted by modernist architects, unfolds according to mechanist ideas that, developed in the industry under the influence of Frederick Winslow Taylor, are also determinant in the actual organisation of totalitarian regimes. While not necessarily articulated explicitly by postmodernist and more contemporary architects, this relation seems to have played an important role in the growing celebration of chaos against order, in the constant opposition between local and individual diversity and global homogeneity. While the critical utopias imagined by the various radical groups that emerged in England and in Italy in the 1960s and 70s shed new light on industrial logic, standardisation and modularity, it is in the postmodernist model of the Heteropolis that the opposition to the homogeneous, standardised and anonymous city imagined by modernism is made the most explicit. Emphasising diversity and complexity, this model acknowledges dynamics that not only challenge the desirability of standardisation, but also its possibility. Analysing these different models, the second section of this chapter looks at the way architecture and social theory started to consider cities in terms of complex systems. We will see that these perspectives lack what can be considered the great strengths of the models imagined by Archizoom and Constant. While they do show that we can only deal with cities in terms of complex systems, this does not mean that they are not subjected to systemic dynamics of convergence. Nevertheless, they can no longer be understood in standard terms. The originality of Koolhaas' work on the generic city may be addressed along these lines, both in

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[82] Venturi. Op cit., 1966.
[83] See notably Roger Griffin. *Modernism and Fascism: The Sense of a Beginning under Mussolini and Hitler,* London: Palgrave: 2007.

contradistinction and in continuity with modernist and postmodernist accounts.

2.1 Complexity and Contradictions

Postmodernism generally criticised modernist architecture for being bland, monumental and alienating. Contesting its programme of universal progress on the basis that the great diversity and complexity of nature, human life and cultural achievements could not be reduced to standard measures and mechanist models, postmodernism first corresponded in architecture to strategies valorising historical diversity, symbolic aspects and semantic ambiguity. Having been the first to speak overtly about postmodernism, Charles Jencks did not give the more profound political resonance this critical movement later took in philosophy and human sciences. Concentrating on semantic and stylistic questions, his reading of architecture can be see to have closely followed the conceptions developed by Venturi. Venturi's critique was no more overtly political than Jencks'. Venturi's call for giving more attention to the context, for accepting and working with complexity and contradictions can however be read according to an implicit political critique. Modernism wanted to build a new order and to conceive of an all–encompassing rational order that would not only be more simple and better organised, but also more efficient, and ultimately more harmonious. It is precisely to this holist conception of rational and efficient order that Venturi opposes his own practice and conceptions. The simplicity praised by Modernist architects appears suspect to Venturi. Although he does not make any explicit links, it can be argued that it is against the association of standardisation and anonymity with alienation and totalitarian ghosts that, for him like for others later on, complexity, contradictions, diversity, ambiguity, appear to be all part of the same desirable prospect.

For Venturi the problem is clear: "Architects can no longer afford to be intimidated by the puritanically moral language of orthodox Modern

architecture".[84] Calling for "a non-straightforward architecture", he argues that modern experience neither develops according to the standardisation of practices and production nor needs to be positively forced this way. According to him this was only the case for modernist architects who, obsessed with the future and with the universal could only see the present situation to be problematic, and the particular to be nothing more than some reminiscence of the past that should be overcome. Non straightforward architecture, on the contrary, respects the richness and complexity of modern experience. More attentive to the context, this conception of architecture chooses the particular instead of the universal, difference instead of standardisation, and singular elements rather than the overall series. In his foreword to Venturi's book, Vincent Scully gives a sense of the transformation this implied at the time. What appears now historically contingent was in fact seen in highly necessary and deterministic terms by the Moderns. And when Venturi was writing, homogenisation still seemed not only to define the present, but also to belong to the future. Scully clearly positions Venturi against this when he argues that he "(...) is entirely at home with the particular and so offers the necessary opposition to the technological homogenizers who crowd our future."[85] Homogenisation, praised by Modernism, is the enemy. Mies von der Rohe, who critiques Venturi's formal aspects, becomes his main adversary, and his famous doctrine "Less is more," becomes the symbol of what should be refused. For him, in fact, "Less is a bore":

"The doctrine 'less is more' bemoans complexity and justifies exclusion for expressive purposes. It does indeed permit the architect to be highly selective in determining what problems he wants to solve." This forced simplicity, Venturi continues "(...) results in oversimplification. (...) Where simplicity cannot work, simpleness results. Blatant simplification means bland architecture. Less is a bore".[86]

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[84] Robert Venturi. Op cit., 1966: 22.
[85] See Vincent Scully, in Venturi. Op cit., 1966: 14.
[86] Venturi. Op cit., 1966: 24-25.

This bold statement encapsulates the main aspects of Venturi's conception. Formal excess becomes something that should not only be studied but also valorised. Complexities, contradictions, are no longer regarded as what remains to be organised, as what remains to be subjected to simpler rules and principles, but should be accommodated, revealed, and eventually brought together without necessary looking for any form of unified resolution. This also structures the way Venturi understands architecture's relation to the city. One of the first to set up research a studio and to embark with students on studying emerging urban conditions, Venturi occupies a decisive position in regards to the constitution of a descriptive turn in architecture.
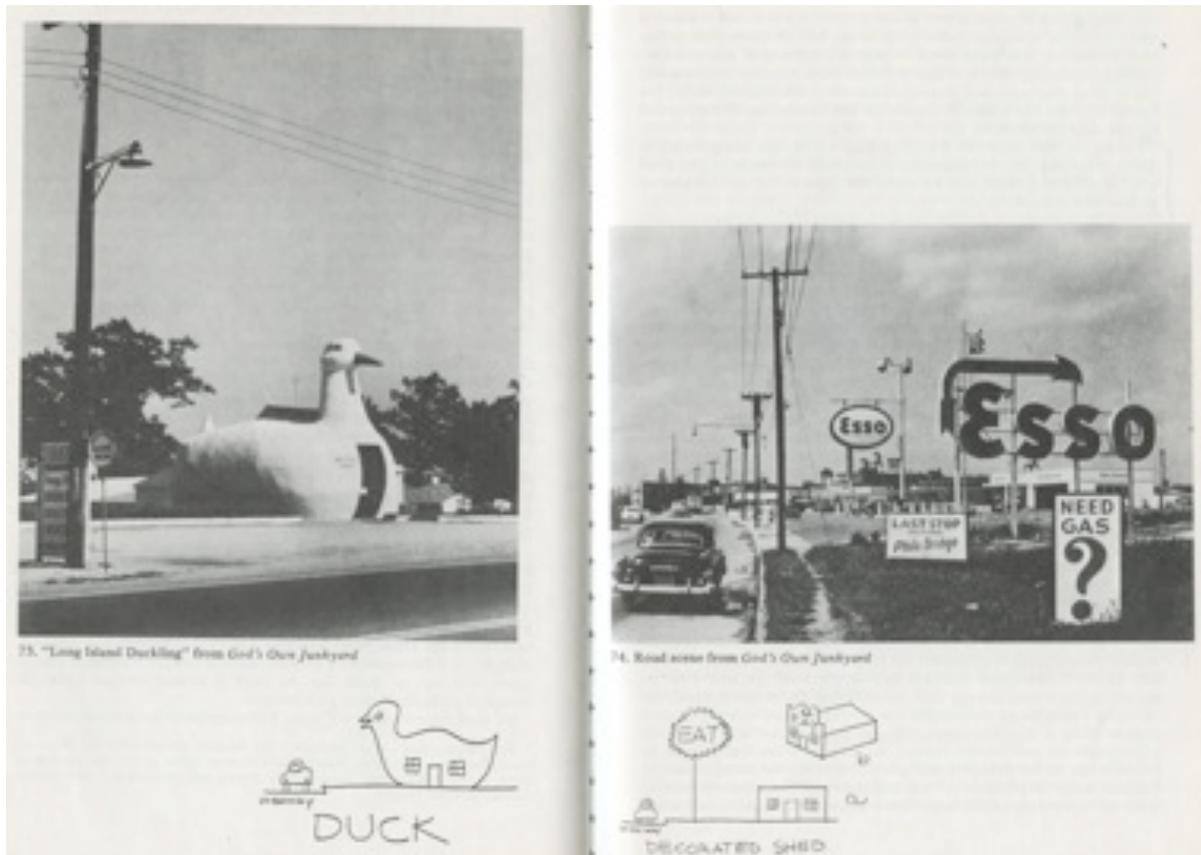
Robert Venturi, Denise Scott-Brown and Steven Izenour. "The Duck and the Decorated Shed", in *Learning from Las Vegas* (1972)

Written together with Denise Scott-Brown and Steven Izenour, Venturi's *Learning from Las Vegas* (1972) is a hallmark in the history of architecture's

relation with the city.[87] This book is certainly one of the best examples of what Sebastien Marot calls situated manifestos. Drawing on Le Corbusier's famous lessons from Rome, *Learning From Las Vegas* explicitly relates to modernist architects' obsession with the city. But while they generally referred to great historical examples to build theoretical ideals and standard icons, *Learning from Las Vegas* is more concerned with present and emerging conditions. More significantly, it looks at what seems to be the least iconic, most vernacular, most disregarded situation. Not only because it is new, but because it announces transformations that no longer seem to concern architects. At the time of Venturi's work, Las Vegas was the best example of a city controlled by promoters and oriented towards the development of capitalism rather than planned by architects concerned with social and political issues. It announces a new form of urbanism: one where signs and cheap facades become content, one that is organised horizontally along one main commercial boulevard, one that is made for the car and for leisure, for entertainment and for temporary stay. It forms a landscape where infrastructures increasingly become architecture. And where architecture increasingly merges with communication. Simple structures that can be repeated, but that also proliferate in every direction and in many different ways. They are made to capture attention more than to accommodate anything more permanent. This analysis comes close to the way Sanford Kwinter and Daniela Fabricius defined the American city in their contribution to *Mutations* (2000).[88] It is no coincidence that Venturi later worked with Ed Rusha and Stephen Shore, two conceptual artists and photographers who are obsessed with the documentation, description, and analysis of suburban space as it developed in the United States from the 1950 onwards. Looking at what appeared at the time to be an avant-garde model that would soon become a paradigmatic example, *Learning From Las Vegas* analyses transformations that have had a profound impact on the organisation of our urban environment since then. Exemplifying the transformations affecting the American City in relation to the development of the consumerist society,

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[87] Venturi, Brown and Izenour. Op cit., 1977.
[88] Daniela Fabricius and Sanford Kwinter. "The American City" in Koolhaas and al. Op cit., 2000.

it also prefigures what has then spread around the world, and notably in Asia. Focusing on the way shopping profoundly transformed our environment, how this phenomenon has almost entirely captured architectural imagination and contemporary culture, the second project lead by Koolhaas at the Harvard School of Design closely relates to what *Learning from Las Vegas* analysed thirty years before.[89] While this account largely contributed to the development of what I call inductive architecture, and while it also represents an interesting landmark to understand both in terms of Koolhaas' relation to modernist preoccupations and the originality of his contribution, I would nevertheless also argue that the attention Venturi paid to neglected and present situations never led him away from his main semiological focus. Interpreting architecture in linguistic terms, Venturi is also representative of the way postmodernism increasingly substituted linguistic, communicational and semiological considerations to the materialist, functionalist and engineering perspective adopted by modernism. And that while this perspective certainly matched many transformations that actually affected both architecture and the city, it also emphasised aspects that, in addition to contributing to dematerialise infrastructural dynamics, have also led to the obliteration of many social and political questions. Although it mainly reads Las Vegas' organisation in semiological terms, Venturi's book pays great attention to infrastructural dynamics. But the model he announces will soon more evidently obliterate this question.

2.2 Diverse Diversity

Dominated by the idea that architecture is communication, the conception that most postmodernist architects develop of the hybrid metropolis they live in appears largely determined by the notion of diversity. The postmodernist metropolis is essentially diverse. This model is notably informed by the explosive growth of multicultural cities and by the runaway inflation of cities beyond anyone's control. But it also unfolds according to the heterogeneous architecture that architects develop to deal with this diversity. It is interesting

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[89] Koolhaas and al. Op cit., 2002.

to remark that, while Venturi already speaks in the 1960s about complexity, post-Modern architects speak more reductively in the 80s and 90s about variety, heterogeneity, and diversity. Charles Jencks argues that this corresponds to the development, in place of the old and more traditional cosmopolis (i.e. the integrated and harmonious models of Alexandria, Rome and even New York), of the contemporary Heteropolis. Exemplified by cities such as London and Los Angeles, this model is for Jencks the result of the increase in the variety of variety.[90] The Heteropolis no longer supports any monosphere of inclusion; heterogeneity and diversity become its only defining characteristics.

This emphasis on diversity points to actual transformations. It notably emphasises the idea that, in times of contemporary economical, technological and cultural globalisation, major cities become increasingly diverse. Not only in terms of culture, but also in terms of population. Jencks' Heteropolis is in that sense quite close to what Saskia Sassen defines as the Global City.[91] Characterised by mass migration, high diversity in all domains, and by multiculturalism, Sassen's global cities are however also characterised by huge economical inequalities, string movements of segregation, and powerful hierarchical structures. Usually financial centres of the global economy as much as they are cultural and informational centres, these cities combine diversity with its more dramatic and decisive counterpart: hierarchical stratification. This more political aspect of the variety Jencks talks about seem largely absent from those models that emphasise on diversity. The Heteropolis seems generally to present a superficial image that can only be enjoyed by those who are economically and culturally privileged. More than talking about the polycentred sprawl to which global urbanisation seems to be subjected, and far from acknowledging the complex dynamics that connect this movement to movements of generic convergence, the different images of the hybrid metropolis, generally more scattered and sketched than really modelled, seem generally only about difference and

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[90] See notably Charles Jencks. *Heteropolis – Los Angeles, the Riots and the strange Beauty of Hetero-Architecture,* London: Saint Martins Press, 1993.
[91] Saskia Sassen. *The Global City: New York, London, Tokyo,* second edition, Princeton: Princeton University Press, 2001.

eclectism. Difference, diversity, multiple access and eclecticism are promoted as a new lifestyle more than as a general condition. This is notably expressed by Jencks when, considering the buildings designed by Frank Gehry in Los Angeles in the 1990s, he argues that architecture's role is to index and further this taste.[92] Radical eclecticism, collage and enigmatic signifiers become the architectural counterpart to sociological, natural and economical diversity. While this tends to obliterate more decisive issues concerning this diversity, levelling the hierarchical differences and movements of segregation it supposes to the apparently neutral plane of aesthetic preferences and formal variations, it also largely disconnects architecture from its social and political responsibility to the city. Architecture increasingly focuses on the designed object, and on the singular building. As such the city increasingly becomes an image. Imbued with metaphors, it forms the cultural background from which the architect draws inspiration, while his plans mainly aim to modify the city skyline and to populate magazine covers. Flirting with caricature, this description does not seem far from what has been structuring contemporary discourses about architecture and the city. The model becomes increasingly metaphorical, mainly alluding to a situation that cannot be well-grasped. Architecture seems only able to intervene on the level of producing innovative forms and iconic buildings for major companies and institutions.

Far from representing any real breakthrough in the recent history of architecture's relation to the city, the parametric jungle imagined by Patrick Schumacher only radicalises and pushes forward the logic already at play in the different models of the Heteropolis.[93] In Schumacher's city, individual preferences have become the centre of a process of selection that literally constitutes the urban condition. The parametric jungle is in fact only the subtitle of a text that Schumacher chose to entitle "My Kind of Town", hence

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[92] See Franck Gehry. Chiat/Day/Mojo office, Los Angeles, CA: 1989-1991. This building emphasises collage, producing an eclectic mix of diverse signs and shapes representing different cultural tastes and movements. See also Idem. Walt Disney concert hall, Los Angeles, CA: 1987-1998, which more evidently draw on Le Corbusier's chapel in Ronchamp to play with the notion of enigmatic signifier. These buildings are notably described and commented in Charles Jencks. Op cit., 2002.

[93] Patrick Schumacher. "My Kind of Town: *The Parametric Jungle*" in *Architecture Today*, AT227, April 2012.

submitting the whole text and model to the idea of some personal preference. The whole text then unfolds as a giant metaphor, between the jungle and the Internet, between the idea that everything is communication to the idea that "the city is a complex text and a permanent broadcast".[94] Although it does describe quite well the way ubiquitous media has recently transformed the urban condition, and although it does indeed address logics that are at the heart of contemporary global urbanisation, it also merely exacerbates and fantasises a situation that merely corresponds to the busy financial centres dominating the contemporary global economy. No longer only emphasising diversity but also constant change, Schumacher's parametric jungle seems indeed to mirror the logics that define contemporary high frequency trading.[95] I would argue that this mirroring relation is what constitutes the most problematic aspect of these models that concentrate on diversity and complexity on the level of the metaphor. Unable to take any critical distance from what they portray, they cannot be accused of being simply descriptive, for their incapacity to comment reflexively on the present transform them into pure deductive models. While the models imagined by the radical movements of the 1960s and 70s can be said to be sometimes even more emphatic than these contemporary metaphorical ones, it must also be argued that they possess analytic, critical, and reflexive qualities that largely surpass them.

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[94] I refer here to the version available online on Patrick Schumacher's personal website: http://www.patrikschumacher.com/Texts/My%20Kind%20of%20Town_The%20Parametric%20Jungle.html, Last consulted 12/10/2013.
[95] Schumacher writes: "In my town the metropolitan condition that Georg Simmel 100 years ago first described as numbing sensory overload becomes productive and transmutes into intense information processing. What I am craving for is a place that offers the most dense communicative experience. What I need to feel alive and productive is an urban vitality based on a high density of diverse communicative offerings that allows me to be both randomly freewheeling and to become highly selective within a split second. This is only possible in a build environment that presents and orders myriad communicative opportunities within each single vista and where what is presented in the immediate visual field allows for inferences about what lies behind." Schumacher. Op cit., 2012. For a presentation and critical account of high frequency trading, see Bogdan Dragos and Inigo Wilkins. "Destructive Destruction? An Ecological Study of High Frequency Trading, Mute magazine online publication, 22 January 2013: http://www.metamute.org/editorial/articles/destructive-destruction-ecological-study-high-frequency-trading.

2.3 Critical Modernism

So far, this presentation has followed the opposition that usually structures the debate between Modern and postmodern architecture. Considering both movements more narrowly, however, it seems possible to identify more profound continuums. Both movements are redefined in the more proper and limited terms of modernism and postmodernism, while, following both Latour and Sloterdijk, this thesis focuses on modernity, and looks at the more profound dynamics that have affected architecture's relation to the city. Grounding this history in the conceptions developed by modernist architecture, I have nevertheless argued that it also followed more ancient precedents. And that it should be read not only in relation to the standardisation of architecture and the production in series, but more generally in relation to the flexible although linear typologies on which they grounded the possibility to conceive, build, and plan the homogeneous metropolis of the future. Following Andrea Branzi's descriptions, it is possible to argue that post-Modernism substituted this model with a model based on heterogenity and diversity: the hybrid metropolis.[96] Branzi, former leader of one of the most significant movements in architecture in the 1960s and 70s, understands things differently. According to him the hybrid metropolis, the post-industrial metropolis, is not only more diverse, but also more homogeneous. Branzi's position is very close to that of Koolhaas. According to him, what has massively changed is the relation that architecture entertains with the city. The project no longer unfolds in terms of long term and large-scale planning. It corresponds to what Branzi defines in terms of segmented thought.[97] Projects are weak from the point of view of global transformation and of their inscription within unifying programmes, but they are strong within distinct and local segments, within circumscribed domains. The chaotic order of the city is no longer seen to be something to eliminate, some transitory state that has to be overcome, but is rather seen to be the reality with which architecture has to cope. The hybrid metropolis is

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[96] Andrea Branzi. *Learning from Milan: Design and the Second Modernity* (1988), Cambridge: MIT Press, 1989.
[97] Branzi. Op cit., [1988] 1989: 128.

hence far more complex. But this complexity, according to Branzi, can only be acknowledged once it is no longer merely identified with diversity. According to him the model and logic implies contradiction and unity,[98] diversity and homogeneity. Hybridation certainly challenges Modernist's purist impulses, but it does not contradict the possibility of being articulated together with homogenising forces. Most definitions of the Heteropolis do in fact implicitly contend that this is effectively the case, for the way they celebrate diversity necessitates the neutralisation of more decisive and critical differences. Branzi's conception of the hybrid metropolis already prefigures what he would later call the cold metropolis, and what Koolhaas call the generic city. The hybrid metropolis does not unfold according to unifying standards, but according to standards that allow variation.
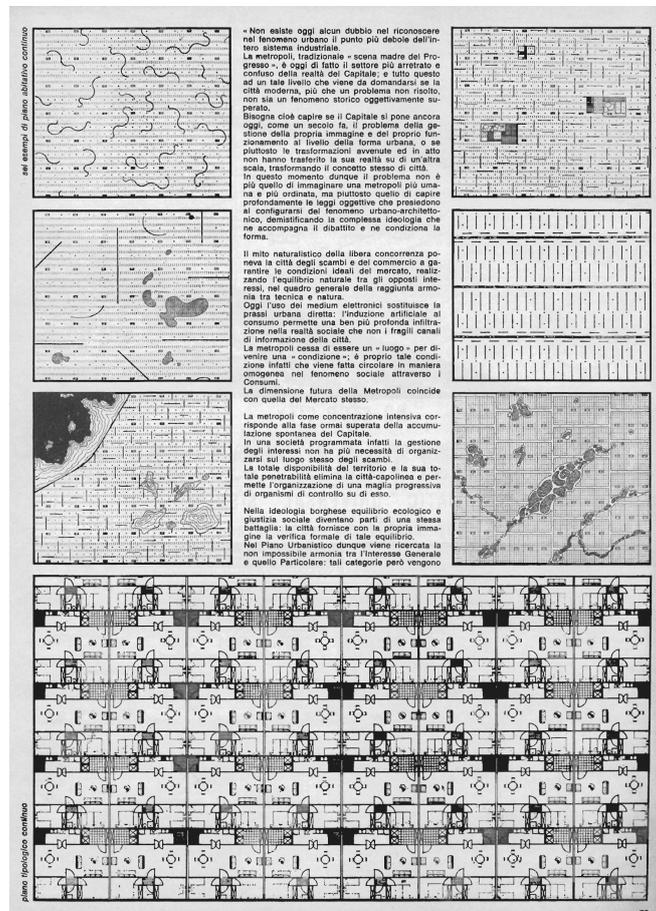
Archizoom. *No Stop City* (1968)

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98 Branzi. Op cit., [1988] 1989: 132.

This more profoundly relates to what seems to have been central to most of the models imagined by the radical movements in the 1960s and the 70s: the notion of variation, the logic of modularity. The ideas developed by Branzi as a way to define the contemporary cold metropolis are very close to those he developed at the same time with Archizoom, particularly when they imagined the model of the No Stop City.[99] The model proposed by Archizoom is a radical version of the standard and homogeneous metropolis imagined by Modernism. Against Modernist mechanical rationalism, it pushes industrial logic to its extreme limit. Following Marxist principles, No Stop City materialises forces which, pushed to their extreme, will necessarily collapse and open to non capitalist and non industrial territories. Emancipation, for the members of Archizoom, follows the radical exhaustion of the industrial system. No Stop City imagines an architecture that would correspond to direct democracy, that would give rise to a social structure deprived of both demos and cratos. Without a centre, without a global image, No Stop City expands in every direction and does not follow rules other than those constantly redefined by its inhabitants. Contrary to modernist models, the city does however do unfold according to a definite image of human nature and human needs. No Stop City does not seek harmony, but rather looks for free and indeterminate associations. Anonymity reaches its maximum: Branzi writes that "it is a city without qualities, conceived for men without predefined qualities".[100] It assembles inexpressive containers, inside of which everything is possible.

This notably contrast with the determinist models imagined by modernist architecture. While modernist architects wanted to accommodate everyone, it was also always through the detailed definition of what would be the standard building, the standard elements that would suit the standard subject that it sought to define positively. The No Stop City, however, considers this only negatively, in terms of bland patterns and empty modular grids. Branzi makes connections with Rothko's monochromes and Cy Twombly's paintings, arguing that, as with these paintings, the No Stop City

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[99] Branzi. Op cit., 2006.
[100] Branzi. Op cit., 2006: 149.

is like "(…) an infinite ocean (…) deprived of centre and of boundaries".[101] This of course could be seen now to be a euphoric portrayal the way capitalism seeks to index the world: a generalised free market that does not know boundaries, and where money is a universal principle of equivalence according to which everything is possible. But it is especially interesting to remark that, while models like this were indeed imbued with utopian aspirations that could seem nowadays to quite distressfully portray the dystopian conditions that had become a reality, they already underline this critical relation to the present they were describing. Following what Sloterdijk argues about the models composing Constant's New Babylon, I would argue that the great strength of these models is that they did not only speculate about future utopian times, but also reflexively and critically addressed dynamics that were actually already present.[102] Branzi affirms for example that, unfolding according to the early developments of information technology, the No Stop City was also conceived to portray a metropolis that would "(…) directly correspond to the market, where distinctions in terms of locality and function would no longer be relevant".[103] This appears very close to the way Sloterdijk defines the contemporary capitalist planetarium.[104] This ambivalent analytic relation, at once speculative, utopian, and critical, defines what I would like to call critical modernism. Whereas this ambivalence remains problematic, I follow Frederic Jameson in contending that it nevertheless can prove today to open new critical possibilities, possibilities that no longer critique in order to establish limits, or to mourn and be ironic, but that can elevate cynical reason and irony to interesting analytical territories. Providing that they remain be ethically committed, they may also articulate our relation to both the complex present and the uncertain future in interesting ways.

I would argue that Koolhaas' model of the generic city largely indexes the way these critical utopias have become our present. During the course of

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[101] Branzi. Op cit., 2006: 150.
[102] Sloterdijk. Op cit., [2003] 2005: 581.
[103] Branzi. Op cit., 2006: 150
[104] *Sloterdijk. In the World Interior of Capital: Towards a Philosophical Theory of Globalization,* (2005), translated from the German by Wieland Hoban, London: Polity Press, 2013.

their actualisation they can however also be seen to have acquired much more dystopic attributes. This has certainly a lot to do with the criticisms Koolhaas receives. But before going into further detail, I would like to make a detour through contemporary sociology and philosophy. Focusing on Latour and the growing influence his philosophy has in the humanities and in architecture, I would like to ague that Koolhaas' account has to be understood in relation to problems that this philosophy seems to neglect. In designing instruments that could help to make sense of the increasingly discrete and complex dynamics that shape our social environment, Latour has greatly participated in extending our capacities to understand and explain complex systems. However, he offers no possibility of taking a more general picture, or of addressing the dynamics of convergence that affect global urbanisation. Drawing on the differences it is possible to define between Latour and Sloterdijk's framework, I would argue that Koolhaas' work on the generic city makes proposals that contrast fundamentally with perspectives that increasingly dominate our theoretical landscape.

2.4 Beyond Indefinite extension

Latour's empirical studies made a decisive distinction between former structural approaches and ethnographical description. Although his philosophy can be seen to be quite systematic, and while his studies also continuously build a more general framework, Actor–Network Theory mainly stands as an anti model. Latour has indeed repeatedly argued that the concept of network had no particular shape, that it was explicitly designed to register the shape of the assemblages under scrutiny. Flattening the social as much as it started by flattening the epistemological ground, Latour can be seen to have designed a system that would no longer presuppose of any particular social topography. It could hence be said that his move to ethnography corresponds to the claim that all models are always reductive. By implying specific topographical and conceptual emphasis, for Latour they always distort reality in ways that ethnography can avoid, precisely because it does not presume any geography, and because it does not privilege any

register of explanation. Ethnography simply follows the actor. It follows things that act; things that count, and things that make a difference and imply transformation that can be precisely described, and only then interpreted. Following what has been said about the models imagined by critical modernism, I would nevertheless contend that this assumption lack emphasis on the theoretical motives and orientation that lead any form of description.

Latour's position implies a specific reading of complexity and continuity. Understanding complexity in terms of ecological relations, Latour has largely participated in supporting the idea that problems of complexity may be best understood in topological terms. Latour's philosophical system greatly emphasise on space. His oeuvre contains important books and articles on urban dynamics and architecture.[105] From networks and vectors to trajectories, chains of relations, and circulating references, most of his important concepts emphasise space. Paralleling Sloterdijk, he repeatedly argued that his work demands to "relocate the global",[106] hence suggesting that his entire work may be understood in geographical and spatial terms. Drawing on his book on Paris — Paris: *Invisible City* (1998) — I would argue that it is possible to read Latour's work as one would explore a city, delineating and addressing the form and the limits of his theoretical system in geographical and spatial terms, and analysing the spatial dynamics that animate the direction of his arguments. I contend that it is because ANT greatly emphasises the discontinuities and heterogeneous elements on which any continuous ensemble depends that it constitutes a decisive starting point

[105]See Bruno Latour. *Aramis, or the love of technology*. Cambridge, Mass: Harvard University Press, 1992; Bruno Latour & Émile Hermant. *Paris: ville invisible*, Paris: La Découverte, 1998; Bruno Latour and Albena Yaneva "Give Me a Gun and I Will Make Every Building Move: An ANT's View of Architecture", in Geiser, Reto (ed.), pp. 80–89. *Explorations in Architecture: Teaching, Design, Research*, Basel: Birkhäuser, 2008; Camacho-Hübner, E. Latour, B. November, V. "Entering a risky territory: space in the age of digital navigation", *Environment and Planning D: Society and Space,* vol. 28, pp. 581–599, 2010.
[106] See Latour. Op cit., [1991] 1993; Latour. *Reassembling the Social: An Introduction to Actor-Network Theory*, Oxford: Oxford University Press, 2005; Latour. Op cit., 2009; Latour. 'Do Objects Reside in Res Extensa and if not Where are they Located?' Paper presented at the Architectural Association School, London (22.02.2011) available online: http://www.aaschool.ac.uk//VIDEO/lecture.php?ID=1380

to engage with the topological complexity of contemporary urban dynamics. But I would also argue that, by contending that any entity is ultimately nothing more that the ensemble of relations it entertains and manages to maintain with others, his system is also problematically indifferent to more general and generic dynamics of convergence. For all its horizontal and reversible descriptions, ANT ultimately produces the problem of defining boundaries, drawing definite lines, and isolating systemic functions.

Extending his description of Paris, Latour's general argument makes the point that it is change and not conservation that is the law; and that continuity is only established on top of many discontinuities and transformations. The framework developed by Latour tends to explain continuity by the discontinuities it implies. Like any other city, Paris becomes in his view a giant body, where the invisible infrastructures feeding and managing the city suddenly become its organs. This already suggests a biological, technical and political understanding of urban dynamics, which replaces a holistic conception with multiple descriptions of situated and specific networks. Moving away from phenomenological understandings, he expands the description of urban dynamics beyond the human imaginary and deepens our understanding of the material and engineering dynamics that shape the urban environment. In fact, Latour's account allows one to make sense of a more general and more profound transformation according to which the impact of new technologies not only adds another dimension to a pre-existing physical space but produces new forms of continuities between the physical and informational dimensions. This argument encapsulates the more general way in which Latour understands space. Paralleling Sloterdijk again, Latour distinguishes his own topological position from former Euclidean conceptions of space. According to Euclidean geometry, space was where objects and subjects resided. Defined in terms of extrinsic extension, space could still exist once emptied of all entities populating it. For both Sloterdijk and Latour however, space is only one — although may be the most significant — of the many connections made by objects and subjects. In this intrinsic conception of spatial extension, entities engender their space as

they move. If you take entities out, nothing is left.[107] Following this general definition, his book about Paris dissolves structural and holistic conceptions in order to explore more relational, symmetrical and flat perspectives that contribute to understanding the city.[108] Comparable to the attitude Latour adopted towards classical sociology, this move away from contextual explanations – i.e. explaining diverse local phenomena by their direct causal relation to a more general context – and towards more situated and detailed accounts entails radical critiques of structuralist perspectives. Although his position may consist in deepening our understanding of discrete processes more than in registering the simple victory of interactionism over structuralism, his critique of panopticism seems nevertheless to drop entirely any possibility of understanding the structural dynamics at play in urban organisation. Proposing to replace the notion of panopticism with the concept of oligopticism, Latour contests that there exists in the city any central position from which it would be possible to either discipline or control the entire city. Latour argues that the city is actually made up of a series of discontinuous and scattered observing and controlling apparatuses that, concentrating on specific issues, remain separated. For Latour there is hence no general logic that can embrace every oligopticon and submit them to a totalising, structural power.

Although my argument about the generic does not consist in simply reaffirming the validity of structural explanations, it must nevertheless be argued that, contrary to Latour's argument, the contemporary anonymous city produced by global urbanisation is not only marked by absolute discretisation but also, as Koolhaas argues, by strong movements of convergence that, despite not being totalising in the way the notion of context can be mobilised, are nevertheless more continuous and more structural than what Latour's position allows us to acknowledge. This actually marks an important difference with what Sloterdijk argues. Sloterdijk's spherology understands continuity both in terms of topological extension, and in terms of bounded systems. Although Sloterdijk parallels Latour when

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[107] Latour. Op cit., 2009.
[108] Bruno Latour & Émile Hermant. Op cit., 1998.

arguing that the contemporary city can no longer be addressed in terms of a superstructure but rather as something that circulates, one could say a principle of association, he nevertheless argues that it does hold things together.[109] This question is a constant preoccupation for Sloterdijk.[110] According to Sloterdijk, the contemporary city is a meta-collector of atomised immunological islands. Like Latour, Sloterdijk does not see this meta-collector to be an overall and all-encompassing structure. Neither does he see it as a totalising context. The notion of spheres nevertheless suggests that the important question for him is one of compatibility, that the question bears on those partition walls that do not only separate and distinguish these different spheres, but also constitute points of contact, points of exchange, communication, and compatibility. This question appears central to the distinction he makes between the Ancient Ecumene — founded on metaphysical and then religious universalism — and the second ecumene — the contemporary ecumene founded on the generalisation of the market and commercial relations. Sloterdijk argues that:

"(...) The Second ecumene will not be able to proclaim "the unity of mankind" — to use for a moment the language of the eighteenth century — in the name of a common *physis*, but only on the basis of a common situation. The situation can only be defined from an ecological and immunological point of view."[111]

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[109] Peter Sloterdijk. [2003] 2005: 19-20, 50.

[110] Latour acknowledges this difference very well when he writes: "The word 'network' has become a ubiquitous designation for technical infrastructures, social relations, geopolitics, mafias, and, of course, our new life online. But networks, in the way they are usually drawn, have the great visual defect of being "anemic" and "anorexic," in the words of philosopher Peter Sloterdijk, who has devised a philosophy of *spheres* and *envelopes.* Unlike networks, spheres are not anemic, not just points and links, but complex ecosystems in which forms of life define their 'immunity' by devising protective walls and inventing elaborate systems of air conditioning. (...) The two concepts of networks and spheres are clearly in contradistinction to one another: while networks are good at describing long-distance and unexpected connections starting from local points, spheres are useful for describing local, fragile, and complex 'atmospheric conditions' – another of Sloterdijk's terms. Networks are good at stressing edges and movements; spheres at highlighting envelopes and wombs." Bruno Latour. "Some Experiments in Art and Politics", in e-flux journal, #23, March 2011. http://www.e-flux.com/journal/some-experiments-in-art-and-politics/

[111] The English translation is in publication; I refer here to the French translation. Sloterdijk. *Le palais de cristal: à l'interieur du capitalisme planétaire* (2005), trans. Fr. Olivier Mannoni, Paris: Maren Sell Éditeurs, 2006: 210. For the reference in English, see Sloterdijk. Op cit., [2005] 2013.

I contend that this problem constitute one of the most pressing questions in the Anthropocene era. What is this ecological and immunological common? How can it be built? What is its relation with the continuous process of explicitation? How can immunological structures cope with explicitation in ways that no longer merely counter, suppress or tend to ignore it? These are the questions that underline the importance that is given here to the concept of the generic. Following Laruelle's suggestion that it may represent a new form of universal, I contend that the generic can constitute a decisive conceptual instrument in order to not only define the common immunological and ecological situation Sloterdijk speaks of, but also more fully to engage in processes of explicitation.

Sloterdijk's description of the contemporary city unfolds according to what he calls The Foam City. Following his description of an historical movement going from the most simple and primitive spheres (i.e. the bubbles constituted by the womb, by the family, the house, the village...etc.),[112] to the gigantic and all encompassing globes imagined by metaphysicians, monotheisms, and terrestrial globalisation,[113] and finally the multiple, fragmented and dispersed foam structures in which we now live and which could be seen to perfectly describe the situation prompted by the conceptual definition of the Anthropocene,[114] the contemporary city is for Sloterdijk The Foam City. His general description is similar to what the members of the research group Multiplicity argue about the geography of contemporary urban society in Europe: that it is characterised by a miniaturisation of subsystems and social groups, and by a broadening of the urban macro system.[115] Very much like Koolhaas' Generic City, the Foam City tries to captures the morphology and the logic — one could say the dynamic geography — of contemporary urban dynamics. The fact that the term "city" is still used in both cases seems again quite important here, for it explains why the question of articulating the multiple, the fragmented and the discontinuous with convergence, agglomeration and continuity is still largely

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[112] Peter Sloterdijk. *Bulles: Sphères I* (1998), Trans. Olivier Mannoni, Paris: Pauvert, 2002.
[113] Sloterdijk. Op cit., [1999] 2010; Idem. Op cit., [2005] 2006.
[114] Sloterdijk. Op cit., [2003] 2005.
[115] Multiplicity. *USE: Uncertain States of Europe,* Milan: Skira, 2003: 445.

present in his texts. Although it does very much emphasise pluralism, individualism, fragmentation, and isolation, his model also argues that complexity cannot only be seen this way, and that it is necessary to address what kind of morphological and structural continuities it produces. Sloterdijk speaks about acephality — which does not only address, as in Koolhaas' text, the destitution of centrality, but also the destitution of centralised authority — and about asynodism. The latter term derives from the Hellenistic and ecclesiastic term synode, which used to designated a local or special council formally convened to discuss ecclesiastical affairs. The notion does not only refer to the atomised and fragmented character of the contemporary city, but to what makes it anonymous and politically deprived of proper assemblies.[116] Contrary to Latour, Sloterdijk's position is counterbalanced by the idea that these spatial multiplicities are nevertheless subjected to strong movements of agglomeration: "The urban macro-foam can only be understood according to its spatial complexion (...) when viewed as a meta-collector gathering gathering places and non-gathering places."[117] For Sloterdijk, the relations that specific locations in the foam entertain with other are, like relations between bubbles, questions of contact and partitions: questions of walls and separation but also questions of porosity and permeability. "By precaution, the metaphor of foam draws attention to the fact that there is no private ownership of means of isolation – it has at least a common partition wall with the adjacent world cell," Sloterdijk says.[118]

While it could be argued that Sloterdijk ultimately does not say much about this meta-collecting system — we do not even know whether these meta-collectors are plural or singular... — he does at least allows a move away from fragmentary, localised and object-oriented perspectives that, from parametric architecture to urban studies, and from sociology to political theory and philosophy, seem to have become dominant. The topological singularity of the present and future anonymous city, this city without qualities, is too often addressed according to the sole notions of movement and communication. Stuck on this very general level, most discourses and

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[116] Sloterdijk. Op cit., [2003] 2005: 579.
[117] Idem.
[118] Sloterdijk. Op cit., [2003] 2005: 536.

analyses regularly appear in connection to what Peter Sloterdijk calls the romanticism of decentralisation and dematerialisation.[119] While they try to capture the nature of the transformations implied by the development of communication and information technologies, and to understand the general atomisation that seems to affect the urban macrocosm as it becomes global, all of these accounts have in common their neglecting to address more general and generic features that are in fact ungraspable through direct observation. This simple but bold contention means that, far from condemning models to be all encompassing, reductive and problematically instrumental, models have to be developed in different ways. We need to revisit the question of models. Not the old deterministic models imposing their harmonious and well-integrated views onto realities that were always more complex, but models that truly address complexity that, in many ways, has long escaped the sole domain of phenomenological observation.

3. The Generic City

At once close to these accounts and radically different, Koolhaas' work on the generic city provides decisive contributions to understanding the urban mutations prompted by contemporary globalisation. Not seen as purely desirable as it was for modernist advocates of standardisation, the anonymous city is for Koolhaas rather a condition with which architecture has to deal. The product of modernist architecture, the generic city appears in Koolhaas' descriptions as the product of relentless modernity. I have already argued that the emphasis postmodernism put on particularities and diversity may have in fact only corresponded to a more profound political and economical transformation according to which personal and local differences were no longer integrated into the standard formulation of their universal dimension, but rather systematically articulated with a principle of general equivalence according to which they could be economically evaluated and exchanged. From this standpoint, Koolhaas' work on the generic city cannot only appear to celebrate the dystopian actualisation of the models imagined

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[119] Sloterdijk. Op cit., [2003] 2005: 579.

by critical modernism. Neither can it be reduced to the celebration of a global movement of standardisation. More interestingly, perhaps, it also does not correspond to more ethnographical perspectives which, contending that the global is also always local and that we can never address more than particular connections between discrete localities, condemn more general and structural accounts. Although Koolhaas' text cannot be said to be structuralist in the traditional sense of the term, its account of generic dynamics that do not supersede but nevertheless largely determine the proliferation of differences and discrete dynamics to which global urbanisation is subjected, suggest ways in which we can understand the way extensive continuities are always also subjected to more systematic operations.

3.1 Homogeneous heterogeneity

First published as an open conclusion to his seminal book *S,M,L,XL* (1995), Koolhaas' text on The Generic City starts by asking what can be theorised from the fact that contemporary cities seem everywhere and increasingly all the same:

"Is the contemporary city like the contemporary airport – 'all the same' Is it possible to theorize this convergence? And if so, to what ultimate configuration is it aspiring? Convergence is possible only at the price of shedding identity. That is usually seen as a loss. But at the scale at which it occurs, it *must* mean something. What are the disadvantages of identity, and conversely, what are the advantages of blankness? What if this seemingly accidental – and usually regretted – homogenization were an intentional process, a conscious movement away from difference toward similarity? What if we are witnessing a global liberation movement: 'down with character!' What is left after identity is stripped? The Generic?"[120]

modernist advocates of standardisation argued that what was visible and already at work in industrial production should be seen to provide interesting

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[120] Koolhaas. Op cit., 1994, in Idem. Op cit., 1995: 1248.

tools according to which architecture could engage in the production of a more rational environment. Koolhaas' remarks show he is concerned with similar questions, but that their scope and the reasons why he is asking them have profoundly changed. In place of the heroic register that commanded Gropius' remarks on the positive values of standardisation, Koolhaas uses a more dramatic register. The question is not about translating in architectural terms the principles at work in the industry in order to precipitate an urban order that does not yet exist. But it is rather about what to do with the fact that the urban condition seems indeed condemned to convergence. Is the contemporary city condemned to be the same everywhere? Does globalisation indeed prompt the formation of one single city that would swallow a planet indexed by international airports? And if these common arguments are right, what can be done? What can be done not in order to avoid that movement or to prevent and confront it, but rather to cope with it, to understand its qualities, given the fact that, as Koolhaas argued in previous texts, this condition largely escapes the scope of any planning schema.

Koolhaas' remarks show that he takes a very different perspective from Latour's discrete accounts. Much closer to Sloterdijk, Koolhaas seems still concerned with the possibility of generalisation, with the possibility of making general assumptions, all at once extrapolating things that are visible in concrete and situated locations, and identifying more general logics. But his position should not merely be associated with these either tired or emphatic comments repeatedly made about global homogenisation. Although his text on the generic city starts with similar interrogations, it is also moved by more profound questions about the relations between architecture and the city, between planning and contingency, and between difference and repetition. About planning, this text follows what Koolhaas argued before in both "Bigness, or The Problem of Large" (1994) and "What Ever Happened to Urbanism?" (1994). In these texts, Koolhaas argued that it

was not diversity that dismissed the Modernist planning trope, but rather large-scale complexity and indeterminacy.[121]

This is the main difference between Le Corbusier and Rem Koolhaas. Although Koolhaas tackles the same questions — questions concerning inductive strategies, the relation between architecture and the urban context, questions concerning urbanism and urban organisation in their political and social dimension more than architecture in terms of construction —, his perspective has nothing to do with modernist linear and deterministic doctrines. His problem is less to judge the convergence he is questioning than to understand that the scale at which it happens *must* mean something. This pragmatism largely structures Koolhaas' approach. Contrary to the strategies that have dominated the way architecture tried to cope with the increasing pluralism and complexity characterising contemporary cities, essentially through hybrid collage and enigmatic signification, Charles Jencks indeed argues that Koolhaas develops an attitude that tends to accommodate various requirements without making any comments.[122] In that sense, he develops an attitude towards architecture that, though it contradicts the deductive logic present in Le Corbusier and Gropius' accounts, does not follow the more generative perspective adopted by most of his contemporaries. His method is inductive. From the description of actual conditions to hypothetical scenarios concerning future developments, and from his theoretical work to his design practice, induction seems indeed to govern Koolhaas' pragmatic approach.

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[121] Koolhaas. "Bigness, or The problem of Large — Manifesto" (1994), in Koolhaas. Op cit., 2005: 494–518; and Rem Koolhaas. "Whatever Happened to Urbanism — Text" (1994), in Koolhaas. Op cit., 1995: 958–972.

[122] Arguing that postmodernism mainly dealt with the Heteropolis by means of collage or ambiguous signification, Jencks considers that Koolhaas adopts another strategy: "Other strategies towards pluralism than these two were developed, functionalist ones that simply (present) diverse requirements without comment or expression. Among those that (champion) this approach (is) Rem Koolhaas and he (does) so while being very strongly engaged with issues of the extra large commission, and themes of bigness and the generic." See Jencks. Op cit., 2002: 180.
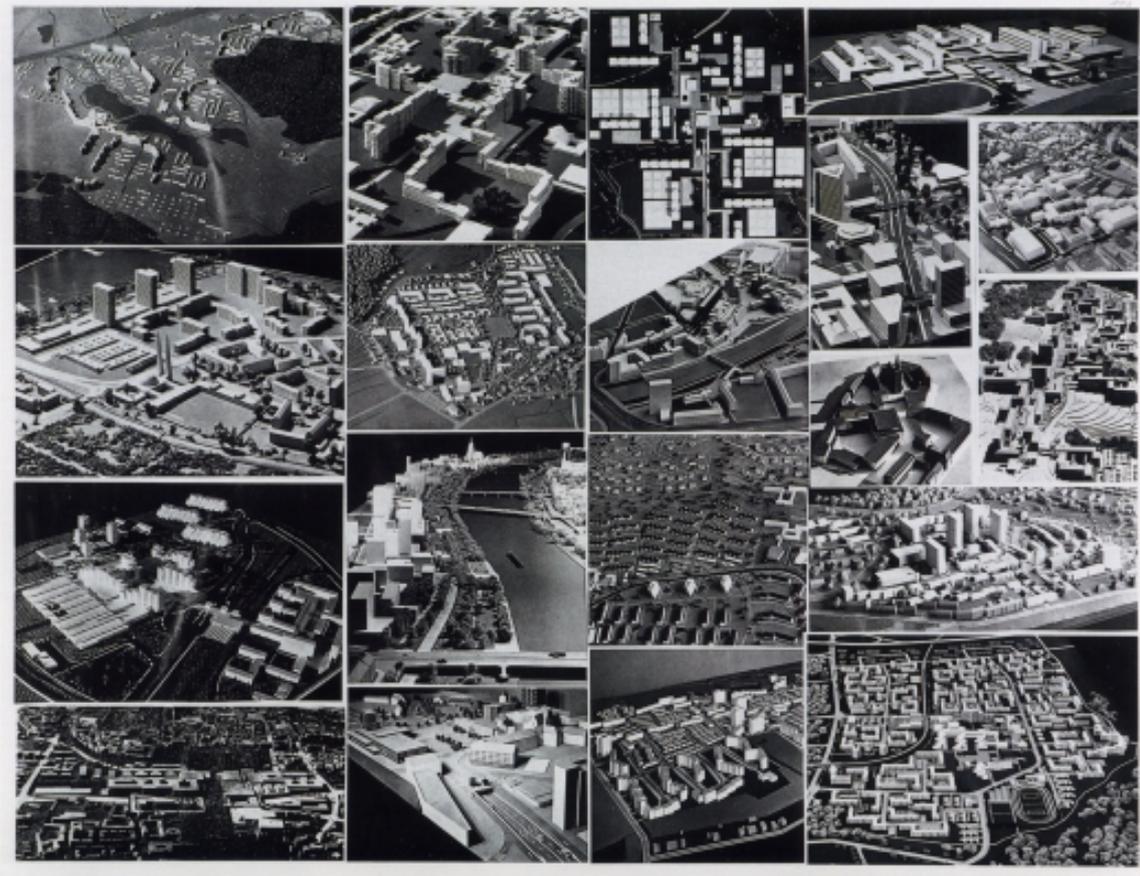
Gerhard Richter. *Atlas #117* (1968)

Following this, it must be agued that Koolhaas' work about the generic is not determined by ideological motives, but rather by analytical ones. This may explain why his attitude often seems paradoxical. While those who read his texts as valorising the generic consider that there is an opposition between his claims about the generic and his contention that the contemporary city is also one of exacerbated differences, it seems that for Koolhaas these dynamics exist together. For him, it is precisely this articulation that we must understand. Pluralism surely goes against identity. But what appears more interesting to Koolhaas is the way identity does not only give way to the proliferation of differences and to more diversity, but to processes of convergence that constitute a new form of homogenisation. The problem of convergence appears in Koolhaas' texts to escape both modernist homogenisation and postmodern differentiation. It considers this problem according to new coordinates. Jencks presents this position in paradoxical

terms. Arguing that the question of repetition versus differentiation has played an important role in debates surrounding global urbanisation, Jencks understands Koolhaas to stand at either ends of the argument, at their extremes.[123] According to Koolhaas the global environment becomes at once more the same and more diverse. This curious position defines Koolhaas' conception of the generic. According to him the generic does not merely correspond to the linear homogenisation sought by Modernist architects. The generic does not unfold as the standard does. Not referring to fixed series and mechanically reproducible objects, the generic rather concerns moving diagrams, allowing many different and heterogeneous parameters to unfold according to common and polyvalent logics. It has to do with similarity and repetition rather than with identity and reproduction. Very much in line with what Branzi argued in 1988 with regards to the cold metropolis, Koolhaas' take on the generic aims to understand homogenisation and heterogeneity at the same time.[124] Koolhaas defines the generic city as being "(…) the apotheosis of the multiple-choice concept: all boxes crossed, an anthology of all the options."[125] Postmodernism remained locked in ironic celebration of differences and capabilities at the same it transformed into variations, Branzi attempted tried to question this very transformation. Andrea Branzi remarked that differences, despite proliferating, were less and less fundamental, becoming mere variations ultimately designating the same reality. For him the great diversity postmodernism was so keen to embrace was already, by the end of the 1980s: "(…) only the formal sign – produced by diversified series, semiological combinatories and variations – of the system's profound unity."[126] Before Rem Koolhaas started talking about the Generic City, Andrea Branzi had already argued that the proliferation of differences and

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[123] Charles Jencks writes: "Of particular relevance was the question of repetition versus differentiation. Is the global environment becoming more the same everywhere, as many people perceive, or more various, or perhaps both at once? The strategies of radical eclecticism and collage city that characterized PostmodernismModernism since the 1970s argued for the desirability of differentiation, but there are many economical and social pressures that increase standardization. Rem Koolhaas, of all the architects involved in this debate, takes a curious position at either end of the argument, at the extremes." Jencks. Idem.
[124] Branzi. Op cit., [1988] 1989.
[125] Koolhaas. Op cit., 1994, in Idem. Op cit., 1995: 1255
[126] Branzi. Op cit., [1988] 1989: 133.

exceptions could not help but produce *generic* outcomes.[127] From this standpoint, Branzi considered the proximity between the contemporary metropolis he observed and the homogeneous metropolis imagined by the Moderns. According to him this production of generic outcomes eventually led to what he called "the [contemporary] cold metropolis" "(…) becoming again some kind of homogeneous metropolis, a unique grey sound, a vast neutral rumor."[128] Far from merely celebrating the non-historical and decentred city produced by the consumerist society and far from being paradoxical and provocative for the mere sake of it, Rem Koolhaas' conceptualisation of the Generic City follows the need to understand this massive transformation according to which the heterogeneous could not longer be dialectally opposed to homogeneity.

Breaking with the usually negative definitions given to this situation, Rem Koolhaas was amongst the first to engage in understanding the profound reversal it imposed upon the way we conceived of urban organisation.[129] For Koolhaas these generic outcomes, these processes of convergence, and this new form of homogenisation and repetition are seen positively. Talking about Maxim Gorki's visit to Cosney Island in the beginning of the 20th century, Koolhaas notably argues that, contrary to what was the case at the time, it is variety that increasingly becomes normal, whereas repetition becomes on the contrary more interesting, even possibly daring, exhilarating.[130] Whereas for modernism homogeneity corresponded to the project of harmoniously articulating differences by forcing it to correspond to some standard and linear continuum, contemporary urban dynamics do not cease to produce differences to which the system seems ultimately indifferent. This system is increasingly immanent to the city, for

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[127] Branzi. Op cit., [1988] 1989: 137.

[128] Branzi. Op cit., [1988] 1989: 134.

[129] This appears for example in clear opposition to Marc Augé's work about what he calls non-places. Marc Augé. *Non places: an Introduction to the Anthropology of Supermodernity* (1992), trans. Eng. John Howe, London: Verso, 1995.

[130] Koolhaas writes: "Maxim Gorki speaks in relation to Cosney Island of "varied boredom". He clearly intends the term as an oxymoron. Variety cannot be boring. Boredom cannot be varied. But the infinite variety of the Generic City comes close, at least, to making variety normal: banalized, in a reversal of expectation, it is repetition that has become unusual, therefore potentially, daring, exhilarating. But that is for the 21st century." Koolhaas. Op cit., 1994 in Idem. Op cit., 1995: 1262.

contemporary urban dynamics are nothing else than the spatial and conditional unfolding and indexation of all other dynamics — from social and economical dynamics, to existential, physical, geological, and cultural dynamics. The contemporary metropolis hence substitutes systematic homogeneity – the generic – to the holistic homogeneity sought by modernism. Homogeneity becomes more operational. It increasingly increases indexation at the expense of representational and symbolical dimensions.[131] Producing equivalence rather than identity, the generic allows homogeneity to nevertheless remain heterogeneous. This may be what Koolhaas keenly understood when deciding to talk about convergence rather than homogeneity. The generic does not work against differentiation, but rather determines it. It is the non-synthetic element that determines, discovers and goes through dialectics between difference and identity. This is why Koolhaas considers The City Of Exacerbated Differences (COED©) and the Generic City to be part of the same model. And this is why Branzi can speak about the contemporary metropolis in terms of "a grand ensemble where all things are different and where everything looks the same".[132]

3.2 Junkspace

It could seem that it is only in "Junkspace" (2002) that this superposition is really addressed by Koolhaas.[133] Contrary to Koolhaas' work and contrary to what Toni Negri contends, Junkspace defines more localised and more circumscribed dynamics than the generic city does. This is what modern explicitation discovers. Latour argues that we must replace what modernity appears to be in theory (i.e. modernisation), the progressive purification of separated and homogeneous domains, with what modernity has been in practice: a constant process of hybridation, a continuous production of larger and more complex systems. I have already argued that this explanation could

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[131] Charles Sanders Peirce. *The Essential Peirce, Selected Philosophical Writings, Volume 1 (1867–1893)*, Nathan Houser and Christian J. W. Kloesel, eds., Bloomington and Indianapolis: Indiana University Press, 1992.
[132] Odile Fillion. *La ville, entretien avec six architectes,* Paris : Le Moniteur, 1994 : 19.
[133] Koolhaas. "Junkspace" (2002), in *October,* vol. 100, spring 2002: 175–190.

be articulated with the more general mechanism described by Sloterdijk between explicitation and immunisation; Koolhaas' texts about the generic city and about junkspace entertains the same relation. The former deals with that which modern explicitation lays bear, while the second deals with the resulting hybrids. Modernist universalism is in fact the pure version, the theoretical misconstruction, of what was really at stake: the generic. Modern explicitation discovers generic truths; it discovers generic constraints. Junkspace thus is the product of the various processes of immunisation that Modernity produced to protect itself from modernity's forces of explicitation.

Although this is certainly pure coincidence, Koolhaas' definition of Junkspace perfectly matches the distinction made by Latour between modernity and modernisation: "Junkspace is what is left after modernization has run its course, or, more precisely, what coagulates while Modernization is in its progress, its fallout."[134] Koolhaas does not say that that Junkspace is the product of modernity, but indeed that of modernisation. Largely connected to Jean Baudrillard's description of the commercial centre Parly 2, near Paris, in *The Consumer Society: Myths and Structures* (1970)[135], Koolhaas's concept of Junkspace emphasises shopping's predatory colonisation of almost every aspect of urban life — from cities' historical centres to suburbs, streets, and increasingly indeed, railway stations, museums, hospitals, schools, airports and the Internet.[136] "Junkspace seems an aberration, but it is the essence, the main thing..." Koolhaas says. "The product of an encounter between escalator and air-conditioning, conceived in an incubator of Sheetrock."[137] The unconscious of the Moderns, it is the "Hyperecology™" developed by the consumerist society: the engineering of maximum comfort and profit whose programme is in constant obsolescence — both always new and already outdated. Junkspace is this space that is always under construction. It replaces development by entropy, design by calculation, planning by permanent evolution. Koolhaas argues that "Junkspace" is the critical counterpart to "The Generic City". And while this

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[134] Koolhaas. Op cit., 2002: 175.
[135] Jean Baudrillard. *The Consumer Society* (1970), New York: Sage publications, 1998.
[136] Koolhaas *and al.* Op cit., 2001.
[137] Koolhaas. Op cit., 2002: 175.

seems to have lead Toni Negri to accord more importance to this text than to the generic city, this idea should not be seen in oppositional terms. Being the critical counterpart to "The Generic City" does not mean that the former would have simply praised dynamics that the latter sees as far more problematic. According to Negri, Junkspace represents the real outcome of the Generic City. It revelas wgar is hidden behind its more operational prerogatives: the collusion with capital and consumerism.[138] Junkspace provides better insights on the morphology of the contemporary city; it paints a better picture of what the generic city is truly about. More representational, more substantial, it is however also more reductive. Koolhaas argues that "hotels are becoming the generic accommodation of the generic city, its most common building block." Hotels turn increasingly into shopping malls and are "(...) the closest we have to urban existence, 21st-century style."[139] The difference with what Koolhaas argues in Junkspace is that here, though shopping may be everything, it is not necessarily seen as the ultimate and inescapable condition.[140]

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[138] Toni Negri. "On Rem Koolhaas", in *Radical Philosophy,* # 154, March/April 2009: 48–50.
[139] Koolhaas. Op cit., 1994, in Idem. Op cit., 1995: 1260
[140] Koolhaas writes: "The only activity is shopping. But why not consider shopping as temporary, provisional? It awaits better times. It is our own fault – we didn't think of anything better to do. The same spaces inundated with other programs – libraries, baths, universities – would be terrific; we would be awed by their grandeur." Koolhaas. Idem.

Thomas Demand. *Filiale* (2012)

Though entirely contaminated by shopping, the generic city should not be necessarily confused with Junkspace. Koolhaas sees Junkspace as a space of disjunctive inclusion, the space whose production and evolution is dictated by escalation and the imminent logics of shopping. But the generic belongs to the space of connections. The generic is the lift itself; its programme, its trajectory. Junkspace is sealed – held together like a bubble. It deploys whole confined environments. On the contrary, the generic is the space of procedures, the space of informational discrimination, stimulated by surrounding noise, looking for compatibilities and referents. Seen this way, generic space is both the envelope and the condition of Junkspace: the container, the lift, the corridors, the bridges and software… Generic space

does not need Junkspace. But Junkspace would instantly die without the generic. Junkspace is merely one programme; one that has pervaded modernity but one single programme nevertheless, while the generic should rather be seen to be the whole operating system. Junkspace explores the actual morphology of the contemporary generic city, but it cannot be seen to correspond to the processes of explicitation from which it derives.

3.3 Generic operations

Following Sanford Kwinter, I argue that the generic is rather like a mathematical DNA which, able to jump over the species barrier, distributes elements in relative indifference to their specific and singular qualities. The generic city hence develops underneath the more evident products of Junkspace. While Junkspace functions through a logic of accumulation, the generic seems rather to unfold according to a logic of subtraction. If Junkspace is what is left after Modernisation has run its course, the generic is what is left once Junkspace is stripped. This follows Koolhaas' introductory remarks according to which the generic is what appears once identities are subtracted.

This subtractive definition of the generic comes close to the conceptions developed by Francois Laruelle.[141] Laruelle defines the generic according to two different orders of manifestation. On the one hand, it is given through the model provided in algebraic knowledge. On the other hand, it is defined through the commercial logic in which it intervenes. In the algebraic model of knowledge, it corresponds to the acquisition of a supplement of universal properties through subtraction and indetermination. Generic formalisation, in algebraic terms, is given by subtraction and indetermination. It is more general, more universal than the particular occurrences from which it was abstracted and that it indexes, but it is also less specific, less determined. In the commercial model, the generic qualifies an object that enters the common circuit through a marking down or a

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[141] Laruelle. Op cit., 2010; Idem. Op cit., 2011.

downgrading.[142]   Although it does not escape the capitalist structure of the economy to which it is bound and in which it intervenes, this commercial definition of the generic shows that it is nevertheless the contrary of branding. Articulating its mathematical and commercial definitions, the generic could even be said to be the opposite of what Pierre Bourdieu identified as the profound generative motive of capitalism: distinction.[143] Bourdieu defined distinction according to the radicalisation of minimal differences. According to him, this term can be seen to designate the procedures and actions through which some people distinguish themselves from others, according to which one product is valorised over others, and, ultimately, according to which capitalism grows and develops. The logic of capitalism is not only "always more". But more precisely: "always different", "always slightly but nevertheless decisively different". According to this definition, the generic is a potential definition of the positivity of the contemporary anonymous city. It is that which cannot be capitalised upon, that which cannot be differentiated because it is precisely, according to Laruelle, *indifferent to difference.*[144]

The generic entertains an ambivalent relation to the capitalist structure in which it intervenes. Effective as a solvent of differences, the generic is nevertheless also the vector through which capitalist equivalence expands. Although I have insisted on the positive qualities Koolhaas identifies in the generic city, his description and his model still very much relate to the way global capitalism indexes the planet, and to the way it spatially expands.

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[142] Francois Laruelle writes: "In the algebraic model of knowledge, the generic is the acquisition of a supplement of universal properties (those of demonstration and manifestation) through a subtraction and an indetermination, a formalization of givens. In the commercial model of prescription medicine or clothes, generic universality is obtained through a mark down or downgrade and the loss of the proper or original name under which the product has been commercialized for the first time, a loss which is equivalent to an inferior form of formalization that plunges these products into the common circuit. There is, however, a difference between these two regimes of the generic. That which is scientific is already beyond–All or beyond–philosophy and only attains its generic regime through a subtraction that is a supplement of paradigmatic (extatico–vertical) properties, whereas the commercial or commodity sphere is philosophical from the start and only attains its generic value through the abasement of its philosophical and global quality." Laruelle. Op cit., 2011: 239.

[143] Pierre Bourdieu. *Distinction: A Social Critique of the Judgment of Taste* (1979), trans. Eng. Richard Nice, New York: Routledge, 1984.

[144] Laruelle. Op cit., 2010: 72.

Generalising the condition displayed by Singapore, Koolhaas' model also clearly portrays the spatial dynamic of contemporary capitalism, that is, an urban substance developing according to present abilities and present needs. It is a condition which, subjected to constant economic valuation, is in constant flux. The generic could be described as the total sum, the general logic, that underpins the expansion and proliferation of what Keller Easterling calls spatial products.[145] For Easterling, these spatial products index contemporary capitalism through marketing and scheduling protocols that supposedly avoid the political, historical, physical and cultural inconveniences of location. But unlike Keller Easterling's spatial products, the generic does not define the mutable abilities of some entities which, like chameleons, would be capable of adapting to and entering any situation. It rather determines topological continuums produced out of a series of mutations. The generic is that which constant.

The generic therefore contrasts with the standard in that it is never the attribute of any typical model. It is never completely represented by any actual entity, but rather it emerges out of encounters and transformations like a common rule that can be deduced from variety. Although the generic can be more explicitly visible in some objects and situations than in others, it always remains an abstraction: its quality is possessing precisely no qualities. Paraphrasing Francois Laruelle, the force of the generic is the force of one space entering other, foreign spaces. Defining its operationality in the field of science, Laruelle argues that the generic defines an "(…) interdisciplinary force of intervention (which, like generic medicine), is defined by a force of marking down or 'downgrading', in general of subtraction through which any product whatsoever is forced to enter into a circuit to which it is foreign."[146] Unlike the general, the generic is not the distilled essence of a group of particulars, but rather the profile formed by a great mound of them. The generic is not on top of the objects it is generated from, but shares the same ground, passing from one locality to another without losing its multiple

[145] Easterling. Op cit., 2005: 1.
[146] Laruelle. Op cit., 2011: 240.

"suitability".[147] Implying at once the downgrading of singularity and the subtractive gaining of universality, the generic defines an *interdisciplinary force of intervention* rather than any general collection of attributes. The generic is no average. Rather it is what Laruelle calls the *Mid-place,* which neither founds nor envelops other objects, but defines the capacity to intervene in another field, group or discipline without being homogeneous. Considering its very equivocal relationship with the market structure of competition and equivalence – and namely with the general principle of translation or money –, Laruelle even radicalises this principle of repetition, linking the generic with the functioning of idempotent operations. While mathematics and computing generally reserve the term to define operations with the same effect regardless of repetition, Laruelle makes *idempotence* the very attribute of the generic itself. Though not "destroying the market and capitalist structure of exchange and equivalence", the generic, no longer seeking to produce difference, nevertheless transforms it.[148] Through generalizing idempotence, Laruelle actually reveals both the generic's controversial relation with capitalism and the profound metaphysical problem it underlines – namely the difference between the thing being represented and the thing in-itself. Because idempotence refers to operations that are indifferent to differences, the generic may indicate the moment where the thing represented (metaphysics) starts merging with the way it is represented (epistemology), but *without* organising their mutual collapse. "The force of the generic (Laruelle argues) is that of the Stranger who comes as a new type of universal."[149]

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[147] Laruelle. Op cit., 2011: 239.
[148] "We shall suggest that genericity, without destroying the market and capitalist structure of exchange and equivalence which is necessary to it as the element in which it intervenes (…) no longer simply reproduces it even with differe(a)nce – Deleuze, Derrida – but contributes to transforming it through its operation which is of the order of *idempotence* (…)". Laruelle. Op cit., 2011: 242.
[149] Laruelle. Op cit., 2011: 240.

Hans Eijkelboom. *Paris, New York, Shanghai* (2008)

Emphasising at the once the continuous problem that Koolhaas' work on the generic posed in relation to Modern standardisation, and the differences that could be identified between the standard and the generic, this first chapter has argued that the concept of the generic could not only be used to define the logic that determine the contemporary expansion of the anonymous city, but also suggested ways in which it could be seen to escape the capitalist structure to which it was bound. I have shown that Koolhaas' position cannot be seen as a simple reassessment of Modernist planning tropes. His work on the generic provided new epistemological footholds used to decipher the complex order of global urbanisation. At once underlining the profound historical dynamics that have shaped the contemporary anonymous city and the differences that can be identified between former models of the homogeneous city and the contemporary one, this chapter has explored the various theoretical models that have guided architecture's relation to the modern city. (The second chapter focuses on the normative logics that have structured the relations exposed in this first chapter. While Koolhaas' generic city provides a model through which it becomes possible to understand the dynamics shaping contemporary global urbanisation in ways that avoid standard models and claims about the unsystematic nature of complexity, the normative logic that it addresses and underlines remains to be explored.

CHAPTER 2

NORMATIVE CONTINUUMS

The first chapter focused on theoretical models of the city. It explored the differences between homogeneous models imagined by modernist architects, the models conceived by critical modernism and those described by postmodernist advocates. It also described the relations between architecture and the city. In addition, it dealt with the increasing acknowledgement of urban complexity in the face of architecture's pretention to organise and enclose. This eventually led to a loss of interest in models, and led to the development of more metaphorical descriptions of the contemporary city. While exemplifying the descriptive turn prompted by post–Modernist critique, Rem Koolhaas' work on the generic city may be seen to closely relate to Modernism. Koolhaas' model of the generic city accounts at once for the increasing complexity and diversification of urban dynamics and for the profound processes of convergence that determine the organisation and development of global urbanisation. As such it can be seen as a decisive contribution to the understanding of the way architecture relates to modernity at large. The anonymous city appeared as modernity's, corresponding to the continuous process of explicitation discussed by Sloterdijk, and to a reality that was never entirely understood by modernism. Following Sloterdijk, it can thus be argued that while modernism can be seen to entertain intense relations with the movement of explicitation, it also reduced explicitation to standardisation.

From this standpoint, I argued that Koolhaas' work on the generic could open new perspectives on the relation between explicitation and immunisation. It has been argued that the anonymous city could not necessarily be said to be generic in itself, for unlike the standard the generic does not correspond to any model that it identically repeats. Contrary to the standard, the generic cannot be the rule and the model at the same time. It cannot be the logic agglomerating different entities while being their prototype. Generic operations produce the anonymous city, while the anonymous city conditioned the emergence of generic patterns and formats. It could be hence argued that, more than being a rational model implied by the many theoretical models related to it, the anonymous is a real abstraction. This follows the way Louis Althusser defined his empirical conception of capitalist rationality.[150] Althusser defines real abstractions according to the abstract identification of invariant structures. Largely structuring his take on empiricism, this concept explains the real inscription, the real embedding and embodiment of these abstractions that inductive reasoning constructs. Although I cannot discuss here the complex and deep implications that this concept has in the work of Althusser, I argue that this broad definition indicates in which it is possible to understand that the anonymous city cannot only be understood in terms of knowledge and theoretical models. This concept stresses that it also constitutes an operational model; one that has profound consequences on the organisation of our environment and that shapes cities we know and experience in ways that exceed their singular aspects. Drawing on Michel Foucault, I further argue that these real abstractions are only real because they actually embody rational logics that are also operational ones. That, like Foucault more generally argues, procedures of knowledge always relate to practices of power, and the capacity of knowing something always relates to the capacity for manipulating it.[151] Following Foucault, this second chapter unfolds according to the idea that the anonymous city is not the product of two

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[150] Louis Althusser *and al. Reading Capital* (1965), trans. Eng. Ben Brewster, New Left Books, 1970.
[151] See notably the introduction to *Security, Territory, Population* (1978–1979). Foucault. Op cit., [2004] 2009.

different continuums that would only at times intersect, but rather the product of one unique and immanent continuum of relations between epistemological rationalities (i.e. that which has been explored in the first chapter) and normative practices. It is on this question of norms and normativity that this second chapter focuses. The chapter seeks to make these relations more explicit, and to explore the normative logics that underpin the different models imagined by architecture as a means of coping with the complexity of urban dynamics. This chapter pays particular attention to the question of modularity, arguing that the relation between the production of immune structures and explicitation poses questions about the way architecture is able to relate to change. It starts by exposing Foucault's understanding of normalisation.[152] Focusing on his work and remarks about architecture will help to make several more distinctions between Modernism and modernity. I will then propose another level of understanding the models that have been explored in the first chapter, and finally will specify what distinctions can be made between standardisation and generic operations.

1. Normalisation

Despite the claim that the complexity of contemporary urban dynamics sheds normative schemes, it must be argued that we are actually not only witnessing a normative inflation in all domains but also and more profoundly, a transformation of the functioning and status of norms. Although economic deregulation seems to have become the ubiquitous principle according to which everything is measured, it must also be remembered that it is only through the proliferation of numerous protocols and regulations that this deregulation is achieved. This largely structures the contemporary economic system, but it also increasingly expands to many other domains, and to architecture more particularly. Arguments about both the complexity of urban dynamics and the forms produced by contemporary parametric architecture cannot alone decently support the idea that we would have escaped normative times that only belong to modernism and urban

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[152] This presentation draws on the above-mentioned series of lectures. See Foucault. Idem.

planning. Paradoxically praised by most of parametric architects, Gilles Deleuze has shown clearly that what could be seen as liberation from the former disciplinary structures notably identified by Foucault, corresponded better to the advent of a new type of normative rationality and mechanisms.[153] Following this argument, I argue that the logic Deleuze identifies in terms of control in fact goes much further back. And that, already analysed by Foucault as functioning alongside disciplinary mechanisms, this logic entertains a relation with the generic that is not absolutely coextensive.

1.1 The urban milieu

While Michel Foucault is generally best known for his analysis of the disciplinary structure of Modern power and Modern institutions, his later work on the question of normalisation has received less attention. This body of work sheds new light on his whole enterprise.[154] In it, he challenges the idea that Modern power is centred on practices of discipline. Digging deeper in the relations between rationality and normative procedures and technologies, Foucault notably argues in these texts and lectures that modernity may have also been, and may be more profoundly, about the increasing development of what he calls apparatuses of security. While Deleuze's famous text on the societies of control marks strong historical distinctions that would seem to go sequentially from sovereignty to discipline, and then from discipline to control only after the second world war, Foucault's accounts of the formation of apparatuses of security from the middle of 18th century suggests that in fact the development of these techniques of control started much earlier. No longer centred on the institutions to which the development of the Modern State has been so closely related, Foucault's work on the problem of normalisation moves away from his previous focus on discipline. The main object is no longer the prison, the architectural model of panoptic power, but the modern city.

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[153] Deleuze. Op cit., [1990] 1992.
[154] Foucault. Op cit., [2004] 2009.

Completing the analysis he made before, Michel Foucault argues that, in fact, the development of modern power is bound not only to the development of disciplinary techniques such as those that appear with the invention of the prison, but also and perhaps more profoundly to the development of apparatuses of security such as those that appear in order to deal with epidemics and the organisation of commerce in the modern city.[155] Analysing the development of liberal forms of government, Foucault argues that it is actually the city which, in the political literature of the 18th century, becomes the model according to which relations between power and space are understood:

"There is an entire series of utopias or projects for governing territory that developed on the premise that a state is like a large city; the capital is like its main square; the roads are like its streets. (…) The model of the city became the matrix for the regulations that apply to a whole state."[156]

No longer corresponding to this autonomous administrative unit cloistered behind surrounding walls, the modern city develops as an increasingly open space, and poses problems that seem at once more variable and more natural than before. Epidemics, social uprisings, and commercial exchange become new problems that can no longer be simply administered, but that must rather be controlled, encouraged, constrained, directed rather than imposed. Foucault identifies three distinct problems: 1. The relation between power and space, which he analyses in the question of the morphological organisation of modern cities; 2. The relation between power and event, which he analyses in the problem of food shortage; 3. The relation between power and normalisation, which he analyses in the problem of epidemics. Foucault's key point is that these problems all appear bound to a new understanding of space. The modern city displays different spatial conditions than the prison did. More open, it develops as a space of circulation rather than a space of enclosure. It does not contain, but rather agglomerates and

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[155] Foucault. Op cit., [2004] 2009: 24–36.
[156] Michel Foucault. Op cit., 2002: 351.

accommodates. Following Peter Sloterdijk the modern city invents a very different envelope. No longer the inclusive sphere of metaphysical, religious, or disciplinary integration, it develops as an open environment defined by the density more than by the nature of the elements it assembles together.[157] Modern cities invent a totally different space. Urban space already develops in ways that no longer fit this extended and external space abstractly formalised by Euclidean geometry and administered by sovereign decisions. It becomes thicker, stratified, subjected to multiple variables, both historical and natural, both political and technological. It becomes this material environment in which the biological dimension of human existence becomes more explicit.

The hypothesis proposed by Foucault is that the modern city carries an understanding of space which, long before the notion of milieu starts to be properly conceptualised by biology and that the strong distinction Modernity made between Nature and Society starts to be questioned, is already bound to the technical scheme of this more relational and dynamic notion. The modern city is hence the site where the technical scheme that corresponds to the notion of milieu emerges even before the notion is properly conceptualised. Foucault is well aware of the fact that architects and the first town planners of the eighteenth century did not actually employ the notion of milieu. But he nevertheless argues that:

"(…) if the notion does not exist, I would say that the technical schema of this notion of milieu, the kind of —how to put it?— pragmatic structure which marks it out in advance is present in the way in which the town planners try to reflect and modify urban space."[158]

According to Foucault, it is principally the town planners who, in the eighteenth century, invented what he calls the apparatuses of security. It is in the modern city that these apparatuses that mark the development of modern power emerge. "The apparatuses of security work, fabricate,

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[157] See notably the chapter entitled "The Foam City", in Sloterdijk. Op cit., [2003] 2005: 535–595.
[158] Foucault. Op cit., [2004] 2009: 21.

organize, and plan a milieu even before the notion was formed and isolated."[159] The conception of space that follows unfolds according to four main ideas:

1. The milieu is a space of circulation. It is where things circulate.

2. The milieu is an assemblage, an agglomeration of both natural and artificial givens. This is crucial, for the milieu hence designates a materiality that is all at once natural and technical, at once made of rivers, forests, mountains and open fields, and made of houses, roads, individuals and living entities. Foucault talks about a period when there were no railways, no electricity, no automobile, no airplanes, no computers and no Internet. But the conception of space he addresses with the notion of milieu already prefigures those developments.

3. The milieu implies that these many entities form dynamic assemblages entertaining mutual relations of cause and effect. It implies, also a long time before the notion is really conceptualised, feedback. The milieu is hence essentially relational, that in which a series of variable elements unfolds.[160]

4. The milieu is this complex environment through which one cannot really affect individual entities, but rather entire populations:

"Finally, the milieu appears as a field of intervention in which, instead of affecting individuals as a set of legal subjects capable of voluntary actions — which would be the case of sovereignty — and instead of affecting them as a multiplicity of organisms, of bodies capable of performances — as in discipline — one tries to affect, precisely, a

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[159] Foucault. Op cit., [2004] 2009: 36.
[160] Foucault says: "The space in which a series of uncertain elements unfold is, I think, roughly what one can call the milieu", Foucault. Op cit., [2004] 2009: 36–39.

population. I mean a multiplicity of individuals who fundamentally and essentially only exist as biologically bound to the materiality within which they live"[161]

Long before the notion of milieu is really conceptualised in the context of natural sciences at the beginning of the twentieth century by Jakob von Uexküll in Germany and Georges Canguilhem in France, Foucault identifies in urban problems the emergence of such a dynamic understanding of space. Starting to talk about apparatuses of security in contra-distinction to disciplinary mechanisms, Foucault argues that it is indeed around problems posed by modern cities that new techniques of government emerge together with a new understanding of space. Although it cannot be said that the topological transformation we are now witnessing dates in fact from the eighteenth century, it may be argued that some related and embryological transformations were already present in this practical understanding of the city in terms of an urban milieu. And although this conception alone cannot explain the difference that can be identified between the normativity implied by Modern standardisation and that implied by generic operations, it must be said that the distinction to which it points between discipline and control mechanisms prefigures in many ways the distinction we can identify between the standard and the generic.

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[161] Foucault. Op cit., [2004] 2009: 38.

Matt Mullican. *Untitled (city views),* (2010)

This distinction can only be made once this distinction between discipline and control is replaced in the more general perspective brought about by the notion of milieu. Once Foucault introduces the hypothesis that it is the development of this notion that allows us to characterise the development of modern biopolitics, the question of discipline becomes a more regional disposition, concerning more specific circumstances, more particular situations, than is somehow included in the more general logic at stake in the open milieu that the modern city represents. I have already argued that, for Rem Koolhaas, the major question concerned the relations between architecture (seen in terms of enclosure) and urbanism (seen to be able to accommodate change and uncertainties). And while it seems quite easy to superpose these arguments, it becomes particularly interesting to remark that it is precisely at the moment when architecture meets urbanism, that it is precisely at the moment when architecture is brought up to the large scale of urban organisation, that, according to Foucault, architecture

really becomes political.[162] Returning to this quite radical argument in an interview with Paul Rabinow, Foucault explains that he did not mean that architecture had not been political before, but that it is in the eighteenth century that "(…) one sees the development of reflection upon architecture as a function of the aims and techniques of the government of societies."[163] And it only then, Foucault continues, that "(…) every discussion on politics as the art of government of men necessarily includes a chapter or a series of chapters on urbanism, on collective facilities, on hygiene, and on private architecture".[164] This is closely linked to the first chapter's argument. It may in fact be argued that, when saying this, Foucault does in fact already identify the movement following which the traditional definition of architecture — i.e. in terms of isolated buildings, in terms of monuments, in terms of representation and symbolism — starts merging with urbanism and town planning, the actual organisation of a given territory and the materialisation of social relations. Thus Foucault does not mean that architecture was not political before. He does not mean that the pyramids in Egypt, the Parthenon in Greece, or the Pantheon and the Coliseum in Rome were not powerful political instruments or did not invest political relations. Rather, he underlines the inversion that turns the city into the primary problem for both politics and architecture.

1.2 Natural and social norms

While architecture seems today driven by a particular emphasis on organic forms and biological dynamics, it seems even more important to address architecture's normative relation to the city: the difference between natural and social norms. Foucault contends that the political problem posed by modernity as far as architecture is concerned lies in the articulation and accommodation of the relations populations entertain with their milieu. The

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[162] Foucault. "Questions à Michel Foucault sur la géographie", in Hérodote, N°1, January–March 1976, pp. 71–85. Reproduced in Michel Foucault. *Dits et Écrits, Vol. 2, 1976–1988*, Paris: Gallimard, 2001.
[163] Foucault. Op cit., 2002: 350.
[164] Idem.

political dimension of architecture results from its ability to provide normative solutions to the stabilisation of these relations that on the one hand concern a multiplicity of individuals who are seen to only exist collectively and are biologically bound to the materiality within which they live,[165] and, on the other hand, deals with an open environment considered both natural and manageable. And this is why the difference between natural and social norms becomes as important as the question of their articulation.

We have seen that the opposition between Modern architecture and contemporary biomorphic practices is actually bound to an opposition between the organic and the mechanic. While Modern architecture unfolded according to mechanic causation and linear standard continuums, contemporary algorithmic practices seem rather to unfold in analogy to what is understood in terms of biological proliferation, spontaneous organisation, and organic complexity. Although this movement is generally considered to be a move away from norms that are associated with the Modern mechanist paradigm and prescriptive relation to urban space, it must be argued that it only develops according to a new normative scheme. It is useful here to focus more closely on the work of Georges Canguilhem. Not only because Foucault's work on normalisation directly follows the hypothesis according to which, for Canguilhem, his former professor, the history of modernity and industrialisation could be read in terms of a history of both rationalisation and normalisation, but also because Canguilhem relentlessly posed the problem of this relation between biological and social norms. Having done so, he provides us with interesting arguments to challenge the assumption that contemporary parametric practices would escape the problem of normalisation. He invites us to enter more speculative territories in which change, randomness and unpredictability reign.

The starting point for Canguilhem is that all living entities tend to establish normal relations with the milieu in which they live: "The living and the milieu are not normal when taken separately, but it is their relation that

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[165] Foucault. Op cit., [2004] 2009: 38.

makes both of them normal."[166] Canguilhem thus starts to understand that the normal never actually corresponds in fact to an absolute or ideal state, but rather to a variable distinction between the normal and the pathological. Medicine especially works this way. Because it cannot rely on ideal states except in relation to given conditions, medicine is for Canguilhem one of the first sciences to work with norms and normalisation. According to him, it is with medicine, and moreover with the reform of the hospital that followed the French revolution that one may observe the starting point of normalisation. Connecting this development with both modern rationalisation and industrial mechanisation, Canguilhem argues that normalisation cannot however be seen according to the extension of biological normality to the constitution of social norms. This is what is delicate to articulate in his work, for it seems that while medicine would display an example of the way the normal can be extended to the norm, normalisation corresponds for him on the contrary to the extension of the norm to the normal. What is biologically normal has hence for Canguilhem nothing to do with what could be established to be socially normal. While they are articulated, for him both domains are in fact incommensurable. For Canguilhem, biological normativity is irreducible to social normalisation. Biological norms cannot be reduced to social norms. The first only express the tendency of all living entities to establish normal relations with the milieu in which they deploy. The second depend on conventions. They are the results of compromises, of political conflict and negotiations.

Although this argument seems to entail that social norms would be external, imposed from the exterior to biological entities responding to internal norms, it also interestingly implies that, while there is no such thing as an isolated form of life, there is also no such thing as isolated norms. This is why Canguilhem is actually very careful about the biological legitimacy that

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[166] "In other words, the normal and the pathological only concern relations between the living and the milieu. It is because living entities are never isolated that there is no life without norms. The thing is that they do not only deploy according to specific normative determinations and power – *puissance* – but that they do so in already normalised environments. This reciprocal relation is very important to Canguilhem, for it is this relation that allows him to both argue that social norms are irreducible to biological normativity, and that they are nevertheless interrelated." Georges Canguilhem. *The Normal and the Pathological* (1946), trans. Eng. Caroline R. Fawcett, London: Zone books, 1991: 80.

is given to certain social norms. At the time, he is particularly attentive to the essential connection that fascism makes between the natural and the social order. For Canguilhem however, this essentialism is only a special aspect of a more universal phenomenon of rationalisation. According to his own words, fascist techniques are only "(…) a special aspect of a universal phenomenon: that of the rationalisation of the adapting techniques of the relationship between humans and the environment."[167] This argument, central to this thesis, is clearly articulated for Canguilhem with fascism. I have already argued how this articulation could have been made more or less loosely. But in Canguilhem's work the relation is clear. It is however not direct, for the passage from the general phenomenon of rationalisation to the actual formation of fascist conceptions seems to entail a certain threshold: the point where an essential and direct connection is made between biological normativity and social norms. We have seen in the first chapter the role played by this threshold in relation to standardisation. The difference between Neufert's two books can be indeed seen to follow this distinction: the first book considers social norms almost as the natural sciences would do. And while it problematically naturalises conceptions that are more connected to social standards than to biological and universal ones, it does not make the dramatic step further that the second book does: trying to identify in the multiplicity of these social standards, the idea of some universal and unique measure from which these standards could in turn be considered in essentialist terms. Canguilhem's account however does not necessarily require this threshold to be passed in order to criticise the rationality at stake in Modern standardisation. Although he valorises technique as what distinguishes between biological normativity and the way humans tend to transform their environment, the rationalisation to which modernity has subjected it is identified by Canguilhem as a danger. Canguilhem does not explicitly speak about modernist architecture, but his arguments can very well be addressed against it. He sees this rationalisation unfolding according to a general mechanisation of the living which, "(…)

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[167] This unpublished course has been consulted at the Archives Canguilhem, conserved at the CAPHES. Georges Canguilhem. "Philosophie et biologie" (1946–48 ; GC 12.1.8), Feuillet 6. I would like to thank Ferhat Taylan for indicating this source to me.

(depreciating) Man to the point of only seeing in him a material that can be used and informed according to appropriate techniques aiming at better economical efficiency and leading to the simplification of politics", can eventually lead to fascism.

The contemporary critique of Modern standardisation largely follows this line of argument. Zeynep Mennan for example argues that the non-standard primarily unfolds according to the redemption of organic complexity against the standardisation imposed by modernism. According to this perspective, Modern architecture is accused to have confused the rationalisation of the techniques of environmental adaptation[168] with industrial progress, hence valorising standardisation on the basis of a reductive mechanical conception of human nature. Mennan explains the relation between modern standardisation and the mechanist paradigm by the formal covering of all norms — from art to social relations and from economy to politics — according to the normativity given by industrial mass production.[169] And it is in those terms indeed that both Le Corbusier and Gropius' conceptions can be read. The question whether one would oppose to this standard and mechanistic reductionism the complexity of biological dynamics remains however much more debatable. While Canguilhem indeed argues that biological normativity is irreducible to any form of rational standardisation, he does still speak about normativity. He hence does not oppose complexity to normativity the way many advocates of the new algorithmic and parametric turn oppose their formal innovations to the former rigidity of norms imposed by Euclidean space. The question of normalisation cannot be opposed to change and unpredictability the way standardisation can be opposed to complexity. I think this is precisely what Koolhaas does not do when talking about the generic. Not only because he emphasises architecture's relation to the city in ways that involve more general political, economical and cultural dynamics, but also because the generic precisely points towards a normative transformation that cannot be

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[168] I use here again this formulation that I do not find specific enough only to render more readable the difficult translation of the French expression: "rationalisation des techniques d'aménagement des rapports entre les hommes et leur milieu d'existence".
[169] Mennan and Migayrou. Op cit., 2003.

overlooked. But before coming back to this question through the lens of modularity, we must continue our theoretical detour through Canguilhem and Foucault's work about modern rationalisation and procedures of normalisation.

1.3 Normation and Normalisation

Although they are closely connected, the conceptions developed by Canguilhem on the one hand, and by Foucault on the other, differ quite significantly when Foucault starts to introduce a distinction between what he calls normation, and what he continues to call normalisation. While Canguilhem is more concerned with the difference between biological normativity and social normalisation, Foucault more generally understands biological questions to inform, through practical recourse to the notion of milieu, distinctions on the level of what he sees to be more hybrid processes of normalisation. The strong opposition that Canguilhem maintains between social and natural norms leads him to understand that normalisation corresponds in fact to the extension of the norm to the normal. Contrary to biological normativity, which, according to Canguilhem, appears quite autonomous and immanent, social normalisation is understood to be external, imposed on a reality with which it does not have any necessary relation, but that it nevertheless contributes to modify and produce. Contrary to biological normativity, the social norm is first established conventionally, while normalisation is then the movement according to which the norm becomes the normal. Normalisation is that by which the norm is at once extended and exhibited. It is that which multiplies the rule at the same time as it indicates it. More than in medicine, it is in Taylorism and the organisation of work and production that Canguilhem sees this normalisation working. Connected to industrial mechanisation, normalisation is hence related to the more general movement of rationalisation to which architecture has been shown to be particularly related. For Foucault, this general process of normalisation mobilises biological questions in ways that

however demand distinction between different modalities.[170] While the hypothesis made by Canguilhem encompasses the question of discipline, for Foucault normalisation corresponds to something other than discipline. Normalisation does not function according to any definitive definition of the normal but according to statistical definitions, according to instruments and techniques that become able to penetrate the variable relation between an entire population and the environment. Normalisation becomes an open ended technology according to which the difference between the normal and the pathological is constantly corrected. For Foucault, normalisation does not correspond to the extension of the norm to the normal but rather to the contrary, the instituting of the norm from the normal. While for Canguilhem normalisation meant the extension of the norm to what is considered to be normal, Foucault argues that it is in fact from the analysis of the normal that normalisation works.[171]

From this standpoint, it is possible to argue that what modernist architects define in terms of standardisation corresponds to what Foucault calls normation in contradistinction to what he calls normalisation. Much closer to his previous analysis of discipline, normation seeks to be exhaustive. Working on finite series and within enclosed spaces, normation privileges the model over the normal. Foucault does not contradict Canguilhem's definition of normalisation, but attributes it to normation. In

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[170] This idea is in fact already present in *The Order of Things* when, identifying the three models according to which human sciences developed — i.e. biology, economy and linguistics —, Foucault argues that: "It is upon the projected surface of biology that man appears as a being possessing *functions* – receiving stimuli (physiological ones, but also social, interhuman, and cultural ones), reacting to them, adapting himself, evolving, submitting to the demands of an environment, coming to terms with the modifications it imposes, seeking to erase imbalances, acting in accordance with regularities, having, in short, conditions of existence and the possibility of finding average *norms* of adjustment which permit him to perform his functions." Foucault, *The Order of Things: An Archaeology of the Human Sciences* (1966), Pantheon Books, 1970: 389.

[171] Foucault describes this in the opening lectures of the series *Security, Territory and Population:* "We have then a system that is, I believe, exactly the opposite of what we have seen with the disciplines. In the disciplines one started from a norm, and it was in relation to the training carried out with the reference to the norm that the normal could be distinguished from the abnormal. Here instead, we have a plotting of the normal and the abnormal, of different curves of normality, and the operation of normalization consists in establishing an interplay between these different distributions of normality and in acting to bring the most unfavourable in line with the most favourable. So we have here something that starts from the normal and makes use of certain distributions considered to be, if you like, more normal than the others. These distributions will serve as the norm. The norm is an interplay of differential normalities." Foucault. Op cit., [2004] 2009: 63.

this case, the abnormal is, following Canguilhem's definition, "logically second but existentially first"[172] in relation to the normal: the abnormal cannot be defined before the norm is defined and the normal produced, but it is the reason why this norm is established in the first place. This is why the couple normation–discipline works especially in delimited spaces and according to specific purposes: education at school, production in the factory, cure in the hospital, punishment and correction in the prison… modernist conceptions of architecture's relation to the anonymous city can hence be described to unfold according to the idea that standardisation can replace the chaotic organisation of the actual city. This is clearly visible in Le Corbusier's urban plans. Producing machines for ameliorating human conditions of existence, architecture unfolds for him precisely according to norms — in his case both human standards and building standards — that could respond to abnormal situations that those norms were logically necessary in order to identify.[173] This is also why Le Corbusier never truly thought about the way the city could be governed. According to him, the city was to be produced, entirely deduced from the plan, but not to be governed. Asking this question would have meant accepting the actual city, and trying to improve different aspects by working on existing parameters. For Le Corbusier, this improvement could only be achieved by the imagination and construction of a completely different city. The standard indeed imposes its own reality. Like normation and discipline for Foucault, it implies that a model be first imagined, then implemented.

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[172] Canguilhem. Op cit., [1946] 1991: 180.
[173] This is very clear in *The Athens Charter*, and also determines the idea that industrial standardisation is for him both the solution and the only way to correctly pose the problem.
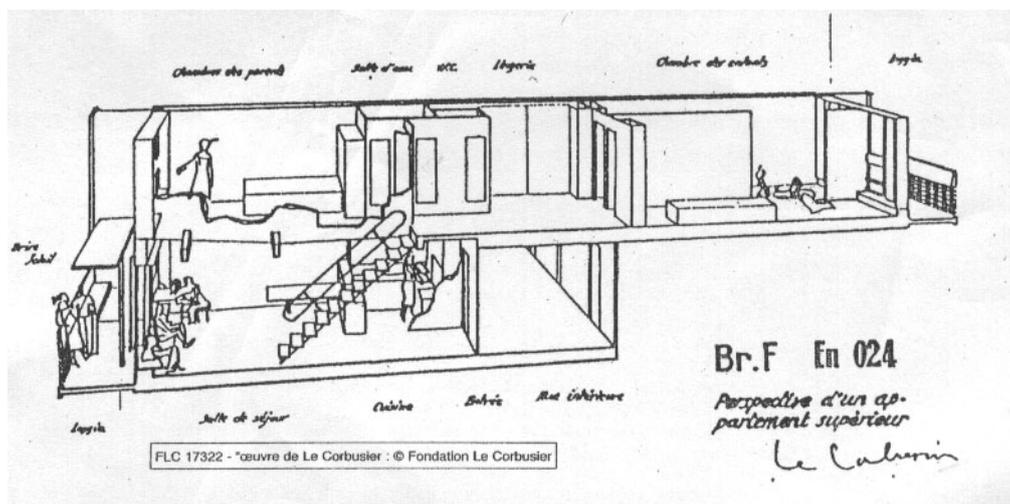
Le Corbusier. *L'unité d'habitation* (1938)

According to Foucault, normalisation works the opposite way. Emerging with the modern city, normalisation develops in the first place precisely by working upon and with its contingent dynamics. It thus starts with the question of government rather than that of planning, by accepting to work from existent parameters rather by imposing an all-encompassing model. This leads to the second aspect of technologies of normalisation, that is, the fact that they are bound to the problem of circulation. The urban milieu opens onto the question of something it cannot completely delineate, something that the milieu cannot prevent, something that nevertheless always flows and circulates. What is to be done with such a force? The question bears on variable phenomena. Things can be sorted, regulated, managed, and encouraged, but not completely and absolutely produced and prevented. This is the third aspect of normalisation, the fact that it is neither about prohibition nor about prescription, but about limitation, about setting up certain limits.[174] Following this definition, it becomes possible to distinguish between two different technologies: on the one hand the technology of discipline and normation;[175] on the other hand the technology of control and normalisation. This opposition allows us to identify a fundamental trait of the technologies of normalisation. Discipline is primarily concerned with normation, that is, with prescriptions bearing on the totality

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[174] Foucault. Op cit., [2004] 2009. See notably the lecture of the 25th of January 1978.
[175] Foucault. Op cit., [2004] 2009: 57.

of the reality considered, and with all its dimensions and details, and which aims at reproducing, according to laws of linear and identical repetition, the norm in homogeneous way. Normalisation functions according to procedures of control, evaluating the minimum level where intervention is both necessary and sufficient.[176] Normalisation does not act directly on the population, but indirectly, modifying the parameters the population depends on, bearing on its material conditions of existence. What is interesting in what Foucault argues is that it shows how it is actually the increasing naturalisation of the city according to the couple population/milieu that allowed normalisation to spread and develop.[177]

This naturalisation appears in different ways. First, the population is biologically and materially bound to the milieu is which it lives and that it hence depends on a series of different variables. Second, the population is made of numerous individuals that have all their subjective preferences and that these are always motivated by desire. Third, the phenomena resulting from these interactions between the population and the milieu, variable and subjected to subjective differentiation, are nevertheless quite regular. These phenomena also display certain constants. Therefore, they are not entirely variable but also quite recurrent and can be analysed, modified and, if not absolutely predicted, at least expected. Giulio Argan, for example, discussed the security measures of capitalist society in reference to the statistical frameworks developed in the context of the International Congress of Modern Architecture (CIAM), which delimited zones of tolerance around

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[176] For Foucault this is a central point: "(…) here I think we come to the central point of all this — all these mechanisms, unlike those of law and discipline, do not tend to convey the exercise of a will over others in the most homogeneous, continuous and exhaustive way possible. It is a matter rather of revealing a level of the necessary and sufficient action of those who govern. This pertinent level of government action is not the actual totality of the subjects in every single detail, but the population with its specific phenomena and processes." Foucault. Op cit., [2004] 2009: 66.

[177] Here again is the question of the articulation between biological and social norms. But according to Foucault, this does not work in the form of identity, where social norms are modelled according to natural order, but it is rather the functioning of normalisation that interplays with these two articulated dimensions: "So you can see that a completely different technique is emerging that is not getting subjects to obey the sovereign's will, but having a hold on things that seem far removed from the population, but which, through calculation, analysis and reflection, one knows can really have an effect on it. I think this is a very important mutation in the organization and rationalization of methods of power takes place with reference to this penetrable naturalness of population." Foucault. Op cit., [2004] 2009: 72.

average values. However, the plans and ideas developed and promoted by Le Corbusier in his texts on the Modulor and l'Unité d'habitation seem much more bound to what Foucault calls procedures of normation. Defining standard models, Le Corbusier's plans are able to replicate this order in linear and deterministic terms. This logic is still largely visible in the way standardisation is promoted by Modern architecture. The general orientation, however, is given by the idea that architecture is an instrument that can correct pathological situations and orientate them towards the normal. Following this, Walter Prigge argues that Modern standardisation hence works according to typologies that are very different from those that traditionally governed architecture. Walter Prigge writes that "in the city of Middle Ages, local prescriptions, formal/structural (Gestaltungvorschriften) functioned like "laws", normative rules set by Law."[178] According to him, the technical founding principle of modern typology consists on the contrary in unifying the measures of plans and building elements that are juridically formalised but only according to average values resulting from negotiations between the State and the industry. Prigge hence reads the Modern typology in terms of normalisation rather than in terms of normation.[179] Although Prigge's account seems to oscillate between what can be said to belong to the couple normation–discipline and what relates to normalisation and control, his description of the normalising functioning of modern typologies is perfectly consistent with Foucault. Beyond the strict standardisation at work in many models imagined by Modern architecture, Walter Prigge also identifies a more implicit continuum according to which standardisation unfolds. Foucault describes this continuum in terms of normalisation, which

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[178] Prigge. Op cit., 2003: 49.
[179] "The diagrams of these structural typologies are instruments that generate typical forms as if they were happening "by themselves": they do not contain, legally speaking, formal requirements but theoretical rules helping to analyse the project in terms of types of modular buildings, through which the self-production of forms can be flexibly controlled. These rules, applicable regardless of regional perspectives in every place and in the same way, are thus economically efficient. This structural typology is not a standard "repressive" — i.e. normative — which sets the laws and prohibitions, but is instead "productive." The modern tyopology is hence a "normalising" norm, that works by the production of variations, and thus by the spread and deviation from the normal average (...) The structural typology of habitat is a device of social normalisation: it is the modern form of the norm, through which architecture bends indivudals' daily typical activities in space to a statistical average, and thus normalises them." Prigge. Op cit., 2003: 49.

ultimately contradicts the logic of standardisation that tries to contain this continuum in terms of normation. Following this distinction, it can be argued that the generic always worked beneath standardisation, and that standardisation was only a particular instance of the generic; one that reduced it to universal and standard values, and whose operational logic was only mechanical. It tended to unfold according to disciplinary mechanisms and a logic of normation, though more subtle mechanisms of adjustment and modulation were already at play. But while the distinction between normation and normalisation can be a good starting point to define the difference between the standard and the generic (especially in relation to the normative question), I will however argue that generic normativity may not be entirely reducible to this logic of normalisation.

2. Norms and complexity

This genealogical discussion appears particularly helpful when considering the functioning of norms in relation to the complexity of contemporary urban dynamics. I propose that while Le Corbusier's standard does in fact correspond to a technology of normation and discipline which, from a definite model, works by identical repetition and linear prescription, Rem Koolhaas' theorisation of the generic may in fact much better correspond to later results of modernity which, working through normalisation and control, produced a new form of anonymous city. This theoretical detour through Foucault's analysis of modern power and normalisation can indeed help us to analyse more precisely the relation between the rational logic at play in the different urban models that have already been discussed, and normative questions. In normative terms, that is, according to the problem posed by architecture's relation to normative proposals, it seems that the main question bears on the question of change and, more precisely, on the question of modularity. If the problem posed by Koolhaas around the question of the generic concerns the problematic relation between architecture's forces of enclosure and the relative unpredictability of urban dynamics, then the main question to ask is how architecture previously

conceived the relation between structure and change. It is from this point of view that I intend to show that the generic can help us to understand that far from merely unfolding diversity, difference, and relatively undecipherable discrete dynamics, complexity also produces invariants, constants, and relies on more generic structures. It will be shown that, in turn, these generic structures can be defined in ways that do not only correspond to the mechanisms of control identified by Deleuze, but also provide a new topological platform that helps us to navigate more accurately through complexity.

2.1 Modularity

Considering both Neufert's work on Modern typologies and Le Corbusier's conception of the Modulor, it seems possible to define the Modernist conception of modularity according to three main characteristics.[180] The first involves structural polyvalence. The definition of standard measures relates for modernist architects to the capacity for accommodating differences in ways that should no longer be expressed as private interests and singular preferences. The entire valorisation of the standard follows this definition of an anonymous house, of an anonymous building and, ultimately, of an anonymous city in terms of its capacity to suit everyone. I have already argued that this capacity entailed for modernist architect the possibility of defining everyone's needs. Nobody in particular, but rather the standard Man, humanity understood universally, according to the standard needs that architecture proposes to fulfil. I suggest this remains an important argument for the way this thesis seeks to engage with the notion of the generic. Although it no longer seeks either universality or a fortiori the idea that this universality could be defined in standard terms, this idea of determining minimal structural conditions rather than singular objects and expressions is what remains central to the way I understand architecture's relation to the urban environment. The second characteristic defining the modernist conception of modularity is given by its inherent functionalism: the idea that

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[180] See Ernst Neufert and al. Op cit., [1936] 2012; Le Corbusier. Op cit., [1945] 2004.

this polyvalence does not unfold out openly, but rather is folded up hierarchically. The typological rationalisation proposed by Neufert defines strict boundaries between different types. And while Gropius seems keen to define elements that, while performing definite functions, can also be used for different purposes, this does not escape the strict functional division that, for example, determined the the Bauhaus school design. While this functional hierarchy does allow space for possible permutations, the linear logic of standardisation remains dependent on the strict differences that are made between different types of objects and functions. This is also clearly present in Le Corbusier's urban plans, whose standard and harmonious unity depends on the strict spatial divisions that are made between the different elementary functions that compose the anonymous city: from the function of circulation to the function of habitation, from the function of production to that of administration and that of leisure, every function occupies a different segment of the entire plan. This functional division is what allows us to understand the third and perhaps principal characteristic of standardisation: the idea that modularity is essentially seen in terms of deterministic combinations, in relation to a fixed set of programmed possibilities. The first chapter developed this idea. But here the rational logic of planning involved in modernist standardisation acquires its profound normative dimension. As we have seen, this is why although modernist standardisation can be seen to relate to problems of normalisation, it essentially remains on the side of what Foucault calls more specifically procedures of normation and discipline. Once again the problem is one of normalisation: it is a question of modulation. But faithful to its standard conception of universality, modernism proposes solutions that are more deterministic than probabilistic.

The logic developed by the representatives of what I proposed to call critical modernism and that, generally referred to as the radical movements of the '60s and '70s, include members of Archigram, Archizoom and Superstudio as well as the more solitary trajectory of Constant, largely draws on this conception, but transforms it quite decisively. Projects such as No-Stop City (Archizoom, 1970–1971), already discussed in the first chapter, are

exemplary cases.[181] Like the modernists, they start by considering that the structure should be polyvalent. The main difference appears in the way they understand possible permutations. For them, function is no longer attached to structure. Structure is no longer necessarily dependent on the hierarchical distribution of different functions, but a more abstract and anonymous entity that can accommodate their probabilistic unfolding. This anonymous structure allows them to understand an open-ended permutation of functions, to which they attribute a playful dimension. The users having revealed their permutation, these functions are no longer necessarily fixed in advanced as was the case for modernist architects. But while their structure is open-ended and can expand indefinitely, their projects rely on fixed entities. The open structure is in fact populated by an open ended number of fixed and definite entities. Critical modernism hence reverses the picture, for their models no longer rely on a determinate though polyvalent structure but rather on elementary entities that can only expand quantitatively.
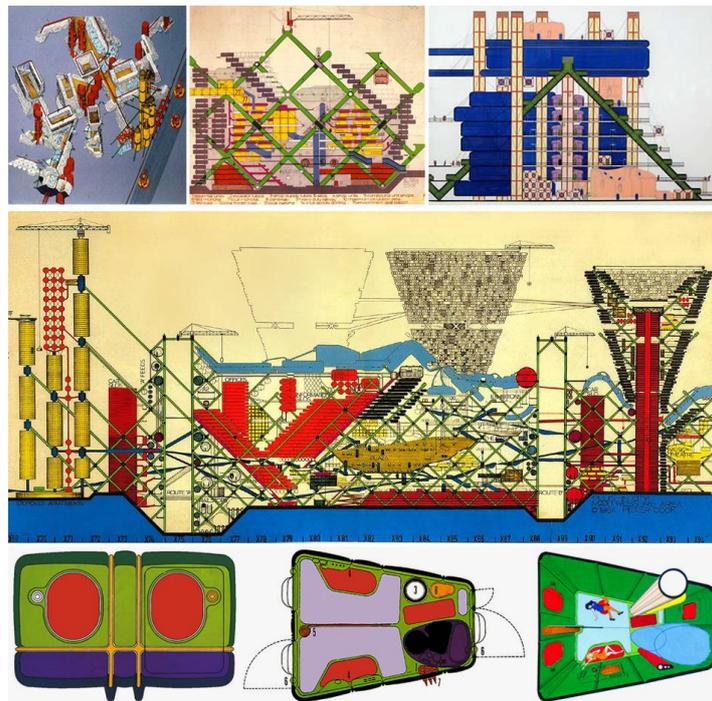
Archigram. *Plug in City* (1964)

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[181] Branzi. Op cit., 2006.

From this standpoint, I would argue that it is possible to define the relation between the generic and modularity in terms that both follow these previous conceptions and radically transform them. Following Koolhaas, it seems possible to argue that, more than starting with a structure, the generic conception of modularity starts with an inductive attention paid to conditions. Generic modularity, perhaps more visible in Koolhaas' theoretical models than in his architectural practice, starts by identifying generic constants and generic requirements, rather than with design questions. Organisational constants as well as programmatic and potential ones are identified, unfolding according to the inductive identification of emergent capacities. These constants traverse Koolhaas' theoretical texts and his design proposals. From his project for the parc in La Villette to the analytic relation his text on the generic city entertains with the actual organisation of cities such as Singapore and Atlanta, this problem is recurrent throughout Koolhaas' work.[182] Emergent, complex, and undetermined conditions come first, and it is only then that one can start thinking about the minimal structure able to accommodate these various requirements. This minimal structure accepts no other requirements than the idea that it should allow polyvalent and open-ended permutations. This time however, these permutations are no longer only open-ended quantitatively, but also qualitatively.

From this standpoint, I would argue that it is possible to understand the concept of the generic as providing a different understanding of the relations between complexity and normativity than what has been theorised by both the Modern Movement and critical modernism. While engaging with these relations in ways that still depend on what Foucault defines in terms of normalisation, it also indicates the possibility of considering norms differently. No longer understood in terms of standards, generic normativity cannot be understood according to the definition of average norms. Standardisation worked through the definition of the normal in terms that correspond to lowest common denominators. By arguing that the generic city represents the apotheosis of the multiple choice concept — all boxes crossed

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[182] See notably Koolhaas. Op cit., 1995; Koolhaas and al. Op cit., 2000; Idem. Op cit., 2001.

— Koolhaas points towards another logic. Less reductive than the idea of the lowest common denominators, the generic indicates converging points that are closer to the paradigmatic. While standardisation always refer to a previously determined model that is then replicated in linear and identical terms, and while it essentially refers to modularity in terms of a fixed set of possibilities, generic norms can be seen to be paradigmatic in the sense that they correspond rather to abstract functions that are not necessarily concretely present in all the particular instances it accommodates. Generic normativity hence effects an open-ended modulation of probabilities rather than a fixed set of permutations. Because structure is not opposed to fixed entities which, as with the cellular automata at the basis of critical Modernist models, entail only quantitative modulations, generic normativity rather refers to structures that are, as Laruelle argues, indifferent to differences. As such, they entail the possibility of qualitative modulations affecting both the entities present in the paradigmatic structure and the paradigmatic structure itself. Although this particular type of modulation can be seen to come close to the logic of control identified by Deleuze, I argue that it is this structural element that prevents it from being fully associated with the logic Deleuze described in terms of universal modulation.[183] Deleuze argued that disciplinary mechanisms of normation could be seen to seek ideally to concentrate and distribute in space, to order in time, and to compose a productive force in analogy to the industrial machine. But he defined the different control mechanisms as inseparable variations. According to the new common model or language of the digital and numerical code, these mechanisms were seen by Deleuze to be essentially short-term, corresponding to rapid rates of turnover that ultimately found their logic in a universal system of deformation: "Like a self-deforming cast that [would] continuously change from one moment to the other, or like a sieve whose mesh will transmute from point to point".[184] Following Laruelle, it may however be argued that the generic no longer seeks to produce difference, that it does not work as a universal system of deformation, but rather

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[183] Deleuze. Op cit., [1990] 1992.
[184] Idem.

through the more structural and operational function of idempotence.[185] Indifferent to difference, this function defines the generic as a multiple and relatively undetermined force of intervention. Generic normativity may hence escape the cybernetic logic of modularity as much as it escapes the mechanist logic of standardisation. No longer merely allowing for permutations, it does not either seek, as with the mechanisms of control defined by Deleuze, to work with difference, to follow permutations in their detailed organisation, but rather work with indifference, with those structural invariants that, though not completely escaping the principle of universal equivalence to which they are part, nevertheless transform it.[186]

2.2 Non standard normativity

From this relatively vague standpoint, it seems possible to argue that, while not completely moving away from the problems posed by both standardisation and differential modulation, the generic points toward the possible definition of a non standard normativity. Although the relation that this non standard normativity may entertain with the more general process of normalisation described by Foucault remains to be addressed, it seems nevertheless possible to argue that, because it contrasts with both Modern standardisation and post-Modern logics of control, generic normativity cannot be reduced to processes seen to correspond essentially to modes of capitalist indexation. This indifference Laruelle talks about can in fact be seen as a new type of anonymity. In contradicting both logics of standard homogenisation and logics of differential modulation — logics that, according to Deleuze, can be defined as the management of differences —, this anonymity shows how the anonymous can potentially escape the logics of economical evaluation to which the development of capitalism is bound. This indifference may have nothing to do with the universal principle of equivalence according to which the market is defined. Despite making bold claims according to which "the force of the generic [would be]   that of the

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[185] Laruelle. Op cit., 2011: 242.
[186] Laruelle. Op cit., 2011: 240.

Stranger who comes as a new type of universal",[187] Laruelle remains quite prudent on this matter. I have already argued that the main problem that Koolhaas' work on the generic city may involve is the fact that it mostly stands on this ambiguous line where the generic can be seen to escape from the standard while mediating new forms of standardisation. And it is according to this ambiguity that I will now discuss its relation to the idea of non standard normativity.

Following Foucault's understanding of normalisation, Walter Prigge shows that although Modern standardisation unfolds according to the mechanist understanding of identical and repetitive relations between the model and its copies, the modern continuum to which it is bound also more profoundly and more generally unfolds according to recursive modulations that do not only leave room for variation between the different elements of a series, but also reverse the way the unifying norm indexes the series. The series no longer unfolds according to the norm it represents and repeats in order to produce the normal. Rather it is the normal which, identified quantitatively in terms of statistical regularities and constants, becomes the norm. From this standpoint, I have argued that the differential modulation identified by Deleuze to constitute the logic of control could be seen not only in distinction to the disciplinary mechanisms described by Foucault, but also in continuity with what the later describes in terms of normalisation and apparatuses of security. Although Foucault mostly understood mechanisms of normalisation according to management, control and the variable adjustment to a norm that was still mainly defined in average terms, Deleuze's definition of control extended this logics to mechanisms of modulation that work in closer relation to the production of difference.

From this standpoint, I would argue that, while allowing us to draw another and more complex history of modernity, the recent debate that has arisen around the notion of non standard architecture is not convincing when arguing that it would escape the modern regime of normalisation. Championed by the French theoretician of architecture Frederic Migayrou and Turkish architect Zeynep Mennan who, in 2003, organised the exhibition

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[187] Idem.

Architectures non standard (Centre Pompidou, Paris, 2003), this notion emphasises the development of new practices.[188] These practices have in common their use of computational algorithm to generate new complex forms that would have been unthinkable before. Exemplified in the works of Frank Gehry, Greg Lynn, and Zaha Hadid and Patrick Schumacher, that they may indicate a completely different genealogy of modern rationality in architecture, according to Mennan. Rather than being grounded in the purist and standard models imagined and designed by people like Le Corbusier and Walter Gropius, this alternative genealogy would rather be connected with the Baroque than with Classicism, and could be related, notably, to Antoni Gaudi. Mennan argues that this trajectory traces the underlining current of modernity which, having been despised by Modernism, comes back to the fore. Focusing on formal questions and favouring free association and free creativity over measure and analysis, this trajectory frames, beyond postmodernism, the rational definition of what I call generative architecture.

While Modern standardisation considered the programme as a condition, generative architecture defines its own programme. It generates it, having only analogical and metaphorical relations to its external conditions. Mennan describes the development of a new formal vocabulary that, from the embryologic variations of Greg Lynn and the slime-like structures of NOX to the hyperbodies imagined by Kas Oosterhuis, depicts a new interest for the organic, the dynamic and the animated:

"Formal stability collapses due to an architectural environmentalism and vitalism that constantly transfigures the form, controlled by morphogenetic capacities that are in constant development, following both rational and sensible deployment. The right angle capitulates in a relaxation that releases an open, fluid, supple and adaptive inflexion; form explodes, goes beyond itself following constant changes and variations, integrating and registering forces and information, configuring itself as well as its environment."[189]

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[188] Mennan and Migayrou. Op cit., 2003.
[189] Zeynep Mennan. "Des formes non standard, un "gestalt switch"", in Zeynep Mennan and Frederic Migayrou. Op cit., 2003: 34.

Talking about what Charles Jencks has alternatively called "the new paradigm in architecture", the "second stage of postmodernism", or "complexity two" in terms of non standard architectures, Zeynep Mennan and Frederic Migayrou develop ideas that can be more closely associated with what Charles Jencks now calls critical modernism than to what is now commonly defined under the label of postmodernism.[190] Yet its legacy seems more postmodernist than modernist, as it does indeed focus more on pure formal concerns than anything else. The fluid, supple and adaptive morphogenetic capacities Zeynep Mennan discusses seem unrelated to the more serial and hence both more discrete and more linear continuum that determined the Modern drive for standardisation. The continuum in question appears to be able to change. It is mutable, metastable, in constant development as it changes according to a growing number of related parameters. It no longer unfolds according to the strict compatibilities that could be made between stable and solid objects and elements that were defined according to Euclidean geometry and Cartesian metaphysics. Rather it follows the constant mutations of fluxes of information that can redefine both content and form over time. While Mennan argues that new computational technologies allow the emergence of new morphogenetic capacities that, by generating moving forms that are able to change over time, could be seen to extend non identity to infinity, it is more difficult to agree with her when she contends that this is sufficient to challenge the idea that these forms no longer embodies models implied by a norm.[191] Foucault's distinction between processes of discipline and normation on the one hand, and of control and normalisation on the other hand, allows several distinctions here. First, it must be said that, if non-standard forms are indeed an enunciation of non-identity that is extended to infinity, then the non-standard is indeed opposed to standard normation, but not necessarily to normalisation properly speaking. Second, if it is true

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[190] Jencks. Op cit., 2002.

[191] "The non-standard form is a statement of non-identity extended to infinity, it is a powerful challenge to the entire organization of the human experience and philosophical thought, which always oscillate between order and chaos, identity and difference, invariable and change, universal and singular, essence and appearance. Generated and managed by an extra-formal normativity, these antinomies define the form as the incarnation of a model implied by a norm. Mennan. Op cit., 2003: 34.

that the antinomies she speaks about have indeed defined, under the authority of an extra-formal normativity, the form as the incarnation of a model implied by a norm, this seems again only true of standard normation, but not necessarily of normalisation. And third, it must be noted that, focusing exclusively on the formal and generative dimension of architecture, Mennan dismisses from the start the possibility of addressing the extra-formal normativity that can be seen to bear on the production of non-standard forms. Contrary to the way non standard architecture seems mainly discussed in total disconnection from the normative and hence political relation it entertains with the contemporary city, I would argue that, precisely because architecture has increasingly and continuously been subjected to the autonomisation and complexification of urban dynamics, it is only by continuing to address what constants and norms shape them that architecture can be truly consistent with the technological, economical, political and cultural transformations in which it participates.

The argument has already been made that non-standard architecture — and notably in the case of parametricism which, Patrick Schumacher claims, represents the new global style for architecture and design (see Schumacher 2009) — is a manifestation of "the cultural logic of late neoliberalism."[192] Luciana Parisi notably argues that its "(…) postcybernetic relational operations of positive feedback, structural coupling, and mutual correspondence are now defining the ubiquitous surface of smooth design".[193] But while she recognises this, she also argues that she is "(…) not particularly concerned with criticizing parametricism or its excessive formalism for its inability to address infrastructural issues and the political implications of lived space" (Parisi: *idem*). Although this critique is not the particular subject matter of this thesis, it is however in relation to this argument that I rather explore the possibilities entailed in Koolhaas' work on the generic to more directly engage with these political questions. Contrary to Parisi, I contend that it is only by analysing architecture from the outside,

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[192] See notably Owen Hatherley. Op cit., 2010; Ingeborg M. Rocker. "Apropos Parametricism: If, in what Style Should We Build?", in Log, No 21: March 2011.
[193] Luciana Parisi. *Contagious Architecture: Computation, Architecture and Space,* Cambridge, MA: MIT Press, 2013: 86.

through its hermeneutic relation to present urban conditions, that we may indicate ways in which architecture can really provide alternatives to its dominant relation to control mechanisms that are ultimately indexed on the global principle of equivalence defined by the market. While it is not yet the object of the present project to explore the ways the idea of generic normativity can provide an alternative to the formal and logical arguments proposed by Parisi to distinguish between the topological logic of control and what she calls mereotopological space events, this thesis takes a different perspective on architecture. Much more concerned with this hermeneutic relation between architecture and urban dynamics than with the relation between architecture, computation and formalist questions, this thesis similarly considers the generic according to its epistemological and operational dimensions, but according to architecture's external relation to present urban conditions rather than according to internal questions of design. This may also be seen to unfold according to the distinction I have proposed to make between inductive architecture and generative architecture. While the question for generative architecture may be more about the way computational technologies transform what architecture can do in terms of the production of forms and objects, the question for inductive architecture is more about knowing how architecture can build reflexively on the relation it entertains with the city and the way it envisions transforming it.

From this point of view, I contend with Frederic Migayrou that the growing complexity of urban dynamics, understood to be notably following the "(…) instauration of a continuous and homogeneous computational field" on the one hand, and the fragmentation of most inclusive spheres on the other, cannot be opposed to the Modern standard in terms of antinomic deregulation and randomness.[194] Mennan argues that:

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[194] Migayrou. Op cit., 2003: 13.

"Non standard architecture is the adaptation of serial modes of production to changing modes of conception, orientating simultaneously mental and physical processes towards a continuum that truly impose the norm's fluctuation."[195]

According to what has been argued before about modularity and control, it may however be argued that this continuum, understood in more structural and generic terms, cannot be merely identified with formal conceptions that would impose to the norm to fluctuate. I would rather contend that, as it was argued before, the concept of the generic rather points towards another understanding of normativity. Far from imposing fluctuation, it proposes to understand the establishment of structures that, drawn from invariants identified through an inductive method, could rather be seen to be indifferent to differences that it neither proposes to directly generate nor to simply homogenise. Following Koolhaas, it is repetition and anonymity that may become more interesting when, in the domains of industrial production and information technologies, capitalism seems much more driven by the demands of singularisation than by those of standardisation. While customisation becomes the new key word for capitalism, the virtues of anonymous structures may become more blatant. This does not mean that we ought to reclaim the way modernism used to valorise standardisation. Rather we ought to consider that there may still be something particularly interesting to match the political challenges prompted by capitalist driven urbanisation. More than working towards modularity, we need to look at polyvalent structures again. Here I turn to the mathematical and philosophical work of René Thom on topology. Thom has looked at the relations between the local and the global in terms of an articulation between discrete and continuous processes; these kinds of relations need to be further examined.[196] The transformations implied by his work are enormous and difficult to apply directly to architecture theory and urban studies. He distinguishes between the substrate space of empirical observation, which should not be limited to direct human perception faculties, for it includes all

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[195] Mennan. Op cit., 2003: 34.
[196] Thom. Op cit., [1980] 1983.

kinds of technological instruments that can extend these faculties, and the ideal mathematical space, which orientates the qualitative properties of the substrate space. This distinction is particularly relevant. I agree with Mennan when she argues that "Continuity is a property of the ideal space in which the dynamics that are at the origin of morphology play, even though it presents itself as a discontuinty in the substrate space."[197] The generic is better understood in terms of an abstract structure than in terms of ideal space; however I argue that the conceptions developed by Thom follow Mennan's distinction, and that it is through this distinction that it may be possible to discuss the relation between the discrete and the continuous, between the space of multiple and differentiated actualities and the virtual plane to which they are bound, to speak more like Deleuze, in ways that would repeat neither the arguments of absolute idealism, nor the grandiloquent contextual explanations given by critical theory. Whatever the complexity and subtlety of these transformations, whatever the profound mathematical and geometrical mutations they imply, it seems that the definition of the non standard in architecture cannot be discussed seriously if it is not previously and resolutely considered in relation to the material, technical and rational continuum that characterises modernity. Although many of these generative architects associated with the development of non–standard conceptions may indeed be looking for a new formalism, that is, an indexical rather than symbolical formalism, I would argue that these transformations go beyond the formal and semiotic perspective adopted by post–Modernism. This transformation entails profound mutations in the modern project of rationalising environmental adaptation. Considered as mere biological dynamics, non–standard conceptions risk floating like mere spatial metaphors, indexing the capitalist structure of social distinction and economic valuation much more readily than they respond to the challenges prompted by the advent of the Anthropocene.

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[197] Mennan. Op cit., 2003: 39.

3. Norms and models

This problem invites us to think again in terms of structures and models. Once again, this thesis does not focus on generative models that, from interactive to parametric architecture, define new relations between algorithms and building, between computation and conception, and between architecture and culture. Rather it focuses on models that can be seen to be the extrapolation, generalisation or radicalisation of a present condition. This appears quite clearly in Koolhaas' work. I have already argued that his text on the generic city was in fact mainly a generalisation of conditions observed in Atlanta and Singapore. Presenting an extrapolated and radicalised version of these conditions, however the generic city does not merely simplify the more complex dynamics at play in these cities. Very much like the models imagined by critical modernism, it must be argued that the generic city already underlines an analytical relation to this complex dynamics that is not directly descriptive, but also, and at the same, speculative. It is this speculative dimension that renders this model particularly interesting. In addition to analysing realities already at play in these cities, this speculative quality of Koolhaas' model makes it also capable of registering possible futures, and hence of understanding the present conditions according to their potential futures. Following René Thom, I would argue that the relation between generic structural invariants and complexity does not follow the necessary distinction between epistemological constructions and ontological realities. Typological invariants were categories according to which complexity could be pinned down to a simple relation between forms and functions. The topological quality of generic models on the contrary relates to their abstract and speculative dimensions and to the fact that, while uncovering generic morphologies, they also constantly reflexively relate to the conditions that make these uncoverings possible. Koolhaas' text on the generic city constantly oscillate between these two dimensions. Alternatively discussing emergent generic properties, standard forms, and the contemporary city in generic terms, his text reveals a logic that is also more

generally at play in complexity theory. Following Mennan here, I would argue that:

> "While a typological pulse remains recurrent in their (i.e complexity theorists') search for common rules and simple and iterative methods for the generation of complex forms, these theories do not seek to derive ideal invariants from empirical morphologies, but rather seek to develop a new language to decrypt and rationalise forms in motion"[198]

This last section analyses the generic as a general epistemological structure. In the first chapter, I argued that the generic pointed towards another epistemological model. Underlining very different relation between difference and repetition, it defined another form of the universal. René Thom's insights on the possibility of a potential new formal language to decrypt and rationalise forms in motion will help show that the generic may reveal another type of normativity. I would like to argue that a resolutely vague conceptualisation of the generic in relation to change can be useful in developing strategies to decrypt accurately complex urban dynamics. Contrary to the strict homogenisation drive that characterise standardisation in relation to its linear understanding of typological variations, the definition of generic indifference may provide architecture with conceptual instruments to enhance its structural relation to change. I contend that generic models can, by defining constants that are, following Laruelle, indifferent to difference, positively transform architecture's relation to structural invariants, and hence in relation to both potential and change.[199]

3.1 Descriptive and operational models

Models are usually criticised for being normative. Arguments about complexity are increasingly mobilised in order to judge models as reductive

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[198] Idem.
[199] Although I do not directly address his work, the work of Pier Vittoro Aureli on the generic language of architecture is relevant here. See notably Pier Vittoro Aureli. "The Common and the Production of Architecture: Early Hypotheses", in David Chipperfield, Kieran Long & Shumi Bose (eds), *Common Ground: A Critical Reade*r, Venice, 2012.

and normative perspectives, products of a failure to acknowledge complexity. Whether it concerns whole urban masterplans or building scale models, the argument seems the same: while urban scale alone is already beyond the scope of any masterplan, actual buildings are necessarily bound to escape the plans and models made by the architect. I would however argue that all models are not necessarily reductive and normative in ways that, as we have seen in the previous sections, they were in the models imagined by modernist architects. This is certainly not in the case of the models I discuss here.

I am not referring to the concrete scale models used in the design process, but rather to these theoretical models that entertain an inductive relation with actual urban conditions, and that, while not directly informing the design process, nevertheless define certain orientations with regard to the relation between architecture and the urban environment. However, I will largely draw here on Albena Yaneva's ethnographical work on design. Her conception of architectural scale models, and the way they participate in the design process and relate to buildings can be analogically translated in the case that this thesis explores: namely theoretical models and the way they participate in the definition of architecture in relation to urban conditions (see Yaneva 2009).[200] The opposition Yaneva identifies between physical models or diagrams that are now mostly used by architects to communicate about their projects and to document them after they have been completed and the foam models that are used by OMA's architects as experimental tools leads her to argue that far from being purely representational objects, architectural models are at once operational, indexical and heuristic parts of the design process. Following this definition, I would argue that the models I have been discussing from the beginning of this text are both rational constructions and normative proposals. Applying Albena Yaneva and Albert C. Smith's definitions, it is possible to posit that the theoretical models imagined by architects — should they involve actual architectural models,

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[200] Albena Yaneva. *Made by the Office of Metropolitan Architecture: A, Ethnography of Design,* Rotterdam: 010 Publishers, 2009.

drawings, or purely literary forms — possess a double dimension.[201] On the one hand they imagine possible futures. They are experimental machines, not only imagining future representations but also testing various scenarios, accommodating present constraints and possible configurations. On the other hand they entertain specific though changing relations with what Smith calls the reference standards. Architecture models are not freewheel machines. They are measuring machines that do not only set their own standards, but are also set against the backdrop of existing standards. Measuring the unknown always goes in comparison with a carefully conserved known – the reference standard.[202] It seems hence possible to argue that architecture models — whether they be scale models participating in the design of a building to come or pure theoretical projections involving architecture's general relation to the city and present conditions — are in fact machines for imagining and accommodating the future under the constraints of controlling measures, whether they are reference standards or normative schemes. As discussions are emerging on the definition of non–standard conceptions in architecture and urbanism, it is important to keep in mind this double dimension of models. It is only from this point of view that, distinguishing between the term "standard" and the less frequently employed notion of "norm," that it is possible to understand the difference at stake between the standard and the generic in their relation to models and to change. Considering that the theoretical urban models produced by Koolhaas are both descriptive and operational, I would argue that the generic plays a double role in his work: one the one hand it defines a specific relation to knowledge and to the heuristic value of conceptual models; on the other, it indicates ways in which the forces of enclosure and structural determination at play in architecture can accommodate the complex and unpredictable nature of urban dynamics.

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[201] Albert C. Smith. *Architectural Model as Machine: A New View of Models from Antiquity to the Present Day.* Montreal: Architectural Press, 2004.
[202] The argument here is comparable to what Bruno Latour argues when he affirms that no measure can be made without what he calls measuring measures. For Latour, these measuring measures cover the general meaning that is given to the term standard in English. Like the standard meter measure or the many standards stated by the International Organization for Standardization, they are for Latour at once benchmarks and frames of reference. See notably Latour and Hermant. Op cit., 1998.

3.2 Making norms explicit
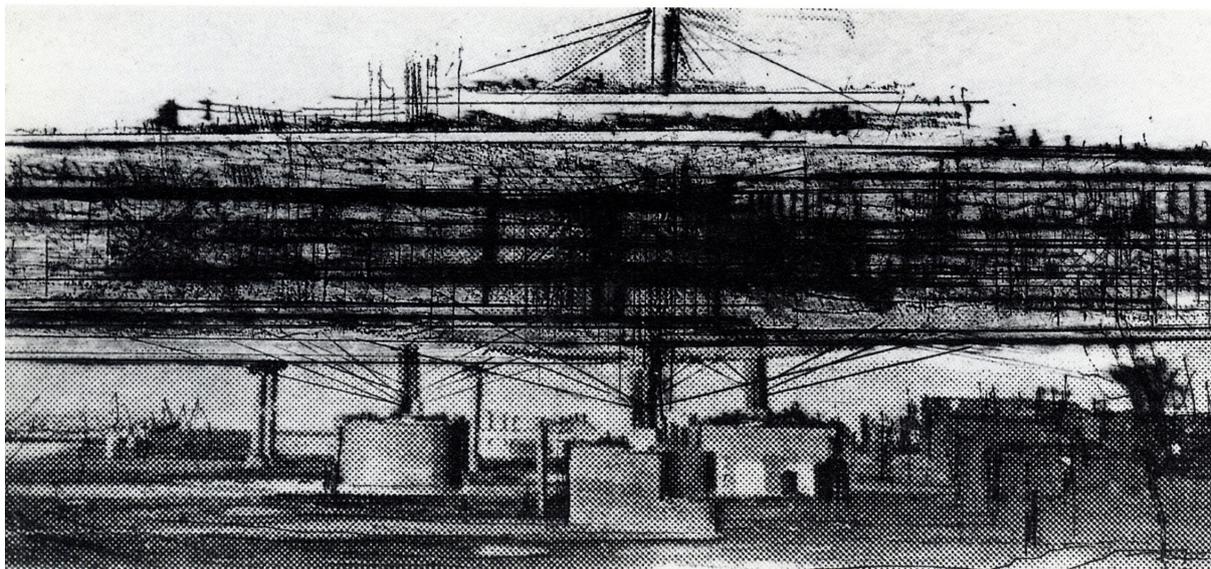
Constant. *New Babylon* (1960–1970)

Despite largely emphasising representation, Albert C. Smith's descriptions are very useful in understanding the many transformations this relation between models and norms has been subjected to throughout history. While this relation to the future seem to have remained quite constant throughout history, their relation to the established and establishing standards has profoundly changed. From the guiding plans that the Greek used to contemporary computational models, it can be argued that architectural models have always been scale devices that, according to Albert Smith's definition, "(…) help humans to extend their intellectual might in an attempt to understand and define the measure of a complex whole."[203] But the way these guiding plans were used to achieve the harmonious standards of form and proportion that represented the ideals of Greek architecture has almost nothing to do with the way Marcus Vitruvius defined their technical relation to the complex structures of domes and spheres that dominated Roman

[203] Smith. Op cit., 2004: 64.

architecture.[204] It was however only during the Renaissance that the relation between models and reference standards changed dramatically. The relative decrease of religious or traditional standards and the growing influence of Humanist philosophy and principles according to which Man became the measure of everything gave models a more experimental character. For both Michelangelo and Leone Battista Alberti, their engineering dimension became as important for the architect as for the patron.[205] Allowing both study and communication on the project, small-scale models enable all the involved parties to take prior account of the relevant considerations and to envisage the future with more clarity. Made of many materials, models become actual mechanisms to think, foretell and conceive future designs. Considering the architect as the paragon of the Renaissance figure, combining skills in music, mathematics, painting, philosophy and engineering, Alberti largely participated in defining models as projecting and demonstrating design machines.

These important breakthroughs are similar to those identified by Peter Sloterdijk. The first important transformation corresponds to the progressive passage from metaphysics and religion to humanism and rationalism. Copernicus' explosion of the geodesic model of the universe has had a profound impact on architecture models. Much more concerned by space than many other disciplines, architecture has been deeply affected by the conception of an infinite universe. But very much like what Quentin Meillassoux argues about the counter-Ptolemean revolution performed by philosophy and especially phenomenology since Kant, architecture has also, notably in the case of modernist architecture, deeply reterritorialised this infinity on the human subject.[206] Mathematics nevertheless becomes the decisive science that sets new norms determining the way architectural models will work and the laws they will follow. Since Leonardo Da Vinci, the

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[204] Far from only representing ideas of future buildings, models became actual engineering mechanisms that were used both to invent forms and for testing different parameters, acknowledging problems of size and feasibility, notably by understanding the proportional strength of material limitations of the small-scale model. See Smith. Op cit., 2004: 8–17.

[205] Leon Battista Alberti. *On the Art of Building in Ten Books*, trans. Joseph Rykwert, Cambridge: MIT Press, 1988: 33–35.

[206] Quentin Meillassoux. *After Finitude: An Essay on the Necessity of Contingency,* trans. Ray Brassier, London: Continuum, [2006] 2007.

scale model had been informed by geometry, physics and calculus. But it is only with Descartes that it became a mechanism. Following the idea that all living bodies are in fact seen, like the universe itself, as machines, forms of automata mechanically responding to simulation, the scale model became a conceptual machine moving in a mathematically measurable clockwork system.[207] Once again, it seems possible to argue that the history of relations between models and norms in architecture throughout modernity unfolds according to the same history of explicitation that Peter Sloterdijk describes. However, very much as Sloterdijk argues, the relation between models and explicitation does not only concern rationality in terms of knowledge, but in terms of normalisation. While the conditions on which life depends are made more explicit, it is also in technical terms, in terms of adaptation and manipulation. The general dissolution of absolute reference standards and the growing autonomy attributed to conventional norms have hence determined the general relation that developed between models and norms. This may be what Sloterdijk saw in Constant's critical utopia. Contending that Constant is "(...) the most important visionary and analyst of the second culture of the city (...)", Sloterdijk argues that the models for Constant's famous *New Babylon* (1960–1970) were perhaps less envisioning the future than describing present and emergent conditions.[208] For Sloterdijk, Constant's models are not just projections. They are also descriptions, displaying not only metaphorical, speculative, and visionary eloquence, but also reflexive, analytical and theoretical qualities. This may be what differentiates them the most from both the prescriptive models designed by Le Corbusier, and the speculative models imagined by El Lissitsky.[209] Certainly the revolutionary dimension of El Lissitsky's work made his models much more radical than those designed by Le Corbusier. Le Corbusier was perhaps less modern than El Lissitsky, for his affirmation of the new never escaped the humanist perspective according to which the techno-scientific explicitation that characterised modernity should be adapted to human

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[207] Smith. Op cit., 2004: 73.
[208] Sloterdijk. Op cit., [2003] 2005: 583.
[209] See Stedelijk Van Abbemuseum and El Lissitzy. *El Lissitzky, 1890–1941: Architect Painter Photographer Typographer*. Utrecht: Municipal Van Abbemuseum, 1990.

nature. For El Lissitsky, on the other hand, progress can only be made by accepting this explicitation, and by following it and accommodating it beyond any given conception of human nature. The model imagined by Constant follows another path. While the opposition to Le Corbusier and his faith in deterministic scheme seems indispensable for somebody who started to experience change, superposition, modulation and chaos, Constant also departs from El Lissitsky in reintroducing a critical dimension. While the revolutionary conditions in which El Lissitky conceived his Prouns allowed him to concentrate only on the future, the fact that Constant's model was conditioned by a revolution that was yet to come gave it a more critical dimension. Although speculatively imagining large meta-structures which, built on piles, would spread over the actual physical territory like immaterial and post-historical metaphors, they also present themselves as reflexive models displaying analytical and theoretical qualities concerning the more general nature of models. The difference with these more recent models is that they are both speculative and critical. Their analytical and theoretical qualities do not only concern models' relation to the future but also their relation to "(…) the concrete interpretation, although indirect, of the present."[210]

It is according to this general argument that I now wish to turn to Koolhaas' work on Lagos. Not yet published in its comprehensive form, Koolhaas' Lagos project is the third he conducted with the Harvard Project on the City. Contrary to many of his other works, this project seems to look at a situation that has nothing to do either with modern standardisation or with the generic. It could at first glance seem that as much as it may appear to be the great other of contemporary globalisation and the great other of Modernisation, Lagos stands as an alien case amongst Koolhaas' research projects. It is however here that his generic conception of theoretical models confronts most radically the questions raised in his text on the generic city.

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[210] Sloterdijk. Op cit., [2003] 2005: 581.

CHAPTER 3

CONTINUITIES AND CONTRADICTIONS, THE EXAMPLE OF LAGOS[211]

The previous chapters have explored both the rational and normative logic which underlines architecture's relation to the modern city. Although they have explored variations and differences between different logics and models, I have also argued that it is possible to isolate continuous dynamics that have generated the abstract model that I proposed to call the anonymous city. Producing increasingly anonymous conditions, modernity has been thoroughly defined in terms of explicitation and in terms of this movement identified by Peter Sloterdijk as one that has made our relation to our environmental conditions of existence always more explicit.[212] From this standpoint, it has been argued that Rem Koolhaas' work on the generic should not be seen to be defining a standard model. On the contrary, it has been shown that this work was part of a broader discussion about conceptions that have run throughout the entire modern history of

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[211] Although this chapter starts by going through relevant historical and geographical facts about Lagos, it does not constitute a study of Lagos as such, but rather an analysis of Koolhaas' research project on this city. Considering that Koolhaas did not abandon the idea of publishing a book about Lagos despite it being continuously delayed, it has however been impossible for the moment to access other material than what has been already published. Focusing on this published material, this chapter also explores the many reactions, comments, and articles that have since then been published. Mostly critical, these accounts provided elements to which Koolhaas' approach can be contrasted. This chapter does not merely put Koolhaas' account in the context of these critiques. Rather it goes through them in order to further pursue and develop the claims made in this thesis. See Rem Koolhaas and Bregtje van der Haak. *Lagos Wide and Close: An Interactive Journey into an Exploding City,* The Netherlands: Submarine DVD, 2006; Idem. *Koolhaas/Lagos,* The Netherlands: Pieter van Huystee Film, 2003; Koolhaas. "Fragments of a lecture on Lagos" (2002), in Okwui Enwezor and al. (eds.), *Under siege: Four African cities. Freetown, Johannesburg, Kinshasa, Lagos,* Dokumenta 11_Platform 4, Ostfildern-Ruit: Hatje Cantz, 2002: 173–184; Koolhaas and al. Op cit., 2000.

[212] Peter Sloterdijk. Op cit., [2003] 2005.

architecture. Ultimately unfolding in architecture's relation to urban space and the city, this discussion essentially concerns relations between the different and the same, the particular and the universal. I have shown that this discussion addressed crucial questions about planning and complexity. Notably discussing architecture's normative disposition in terms of modularity, I have shown that the problem of knowing the degree of complexity that architecture is able to accommodate may in fact constitute the most tangible diagrammatic question according to which it becomes possible to read architecture's relation to modernity in continuous terms.

It is precisely because Koolhaas' work on the generic addresses these questions, because it aims at reframing the articulation between the different and the same, that it can be seen as a decisive contribution to the analysis of contemporary global urbanisation, and to the definition of new relations between architecture and the city. From this standpoint, I argue that Koolhaas' Lagos project is the best example to further explore this question, and to disconnect the question of the generic from that of determining the most or least generic city. Choosing to discuss Lagos has nothing to do with its being generic or not. Rather it is precisely because Lagos appears immediately far less standardised than many other cities that it is an interesting situation to explore the generic in terms of relations between the different and the same, in terms of a principle of organisation, rather than in terms of a fixed set of qualities and attributes. This follows what has been previously said about the move from typology to topology. What is important is the logic of transformation, and not the model that is replicated.

The complex and marginal relation that Lagos entertains with modernity is another reason to focus on Lagos. Having been subjected to a series of modernisation failures, Lagos displays conditions that are paradigmatic of the analysis of global urbanisation and the Anthropocene. The anonymous city here further contrasts with the homogeneous metropolis imagined by modernists architects, but not because it would not have yet been affected by good modernist plans. Lagos rather appears to display conditions that, following Latour, can be seen as the unconscious of the Moderns. Not the chaotic conditions they wanted to suppress through

standardisation, but that which standardisation produced along the forces it could not contain. The actual organisation of Lagos shows ways in which modernisation's failures have been systematically reappropriated, deviated and subverted from their initial programme, and this following dynamics and functions that modernisation plans precisely aimed at suppressing. Far from representing past conditions from which modernity would have emancipated the West, Koolhaas argues that Lagos may display conditions that modernity may be catching up with in the future. I would argue that Lagos does at least display conditions that are both paradigmatic of our current Anthropocene era, and subjected to generic dynamics that the exceptionality of this city may only make more explicit.
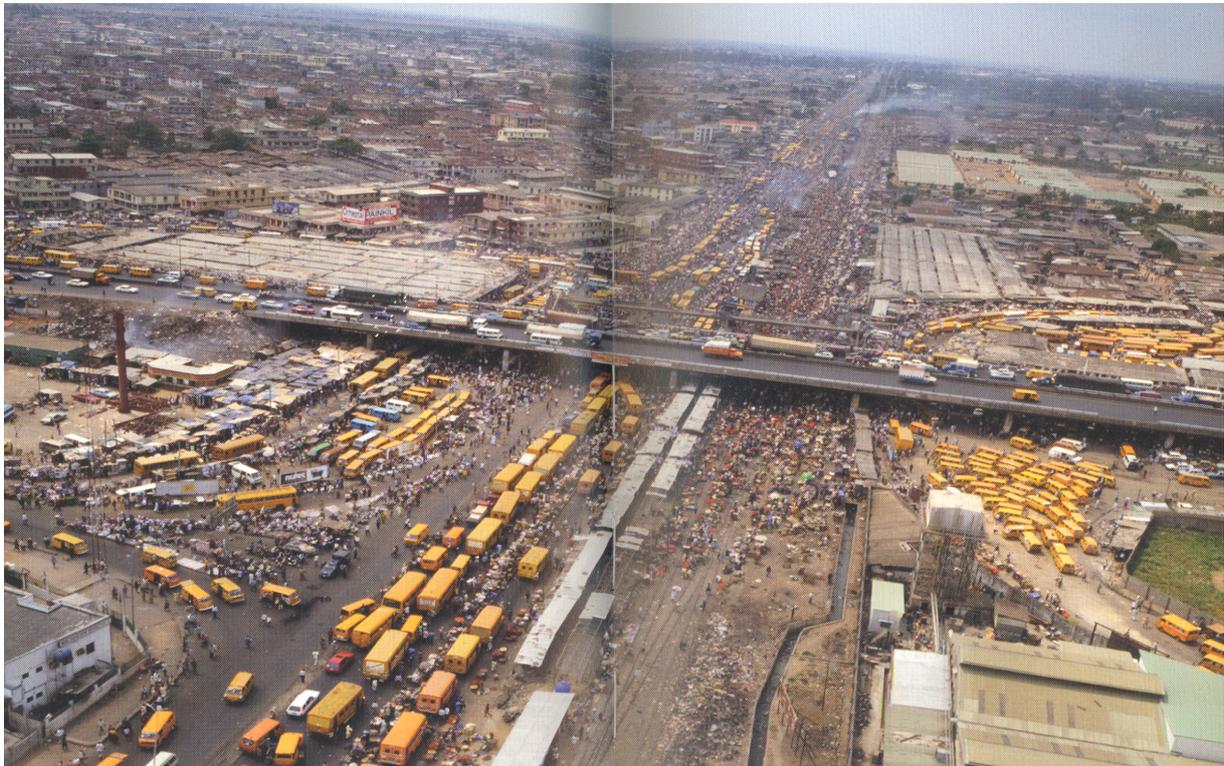
Rem Koolhaas and Edgar Cleijne. *Lagos* (2000)[213]

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[213] This image is extracted from the collective book *Mutations*. See Koolhaas and al. Op cit., 2000.

1. <u>Explosive urbanisation</u>

The capital of Nigeria until it was officially moved to Abuja in 1991, Lagos is world's 25th biggest city. With 13 million inhabitants as of a 2013 survey, it can be said to be at least the size of London, while dramatically lacking the corresponding infrastructures.[214] I would argue that this comparison plays an important role in Koolhaas' original, provocative and radical argument according to which Lagos is not waiting to become modern, but rather represents a highly developed condition to which modernity may lead[215] But more decisive than these static figures is Lagos' explosive urban growth. In 2008, UN Habitat estimated that Lagos had a growth rate of 5,7% per year, which roughly means that Lagos was at the time growing by 2000 inhabitants per day. Although this explosive growth could appear simply contingent, it corresponds to social and economic dynamics that have roots in the long-term history of Lagos as much as they are determined by present global dynamics. The comparison between Lagos and London underlines their respective position in relation to contemporary dynamics in the global economy and geopolitics, but it also points to the long colonial history that links the two cities. Koolhaas has been criticised repeatedly for not accounting for the historical, social, political and economical causes of what he seems simply to analyse in terms of formal order and morphological complexity. I would like to start this chapter by actually addressing Lagos' history, in order to decipher some of the dynamics that may be at play in shaping the contemporary conditions that Koolhaas observes in his work. Though I draw on Matthew Gandy's work on Lagos, I do not entirely follow his critique of Koolhaas. Gandy mainly argues that Koolhaas' formal analysis eschews historical, social and political dynamics as much as it eschews the

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[214] Source UN Habitat 2013: http://www.devinfo.info/urbaninfo/. This figure contrasts with the numbers given by Lagos State's census of 2006, which only surveyed around 8 million inhabitants. Source National Bureau of Statistics of Nigeria: http://www.nigerianstat.gov.ng/. But it also largely exceed the figures given by UN Habitat in 2008: 9.5 million inhabitants. Source Lurg.org, Lagos Urban Research Group:
http://lurgnetwork.wordpress.com/category/lagos-facts/
[215] This is the main argument developed by Koolhaas about Lagos. See notably the introduction to the film Koolhaas/Lagos, Koolhaas and van der Haak. Op cit., 2003; and Koolhaas and al. Op cit., 2000.

actual practices that shape the city. Seeking at once to expand, radicalise and divert some of Koolhaas' proposals, this chapter does not oppose his project, but rather parallels his analyses. Although it explores the reasons why his work eschews a certain number of questions, this chapter does not consider Koolhaas' approach to be essentially wrong. Rather it uses his account in order to further analyse relations between modernity, the anonymous and the generic.

1.1 Lagos and London

The comparison with London appears especially interesting as an approach to Lagos and Koolhaas' contention that the West that is catching up with Lagos rather than the contrary. Exemplifying the condition of the modern Western metropolis, London combines a high density of people with a high density of efficient infrastructures. Lagos on the contrary combines an extremely high density of population with an extreme lack of infrastructures. The administrative limits of the city of Lagos define an area of approximately 1,000 km^2. According to UN Habitat statistics, this stands for a population density of approximately 13,000 inhabitants/km^2. Although this does not place Lagos amongst the most dense cities in the world (e.g. Manila, the most dense city in the world with 43,000 inhabitants/km^2, or Delhi with almost 30,000), it makes it far more dense than London which, according to the OECD has 1,608 inhabitants/km^2. Due to the largely informal development of Lagos, these figures do not account for the high disparities between the upper class housing zones and the large slums that host the majority of the population. While London manages this density through a dense meshing of formal infrastructures — from transport systems to energy networks, political organisations, and the omnipresence of signs and voice messages telling the population how to circulate, how to behave and what to do when in the train or in the tube's corridors —, Lagos seems to rely essentially on direct and informal interactions between people. Following Abdou Maliq Simone, in Lagos as in Johannesburg, people are

infrastructures.[216] I would indeed argue that this accounts for the negative image of infrastructures according to Latour: considering the increased role played in most Western cities by formal, informational and mechanical infrastructures, Latour has often argued that these infrastructures perform actions that were before or would otherwise be performed by humans.[217] While Saskia Sassen considered London to be one of the best examples of what she called global cities (i.e. cities indexing capitalist globalisation as major financial centres, communication hubs, centres of information, and places where social, economical and cultural disparities are the greatest), Lagos seems indeed rather paradigmatic of cities of the global south: uncontrolled and explosive growth of population, massive corruption, exploitation of natural resources by foreign companies whose investments and profits fly over the heads of the majority of this population, concentration of rich areas in few small and well protected residential locations with slums expanding in every direction. GDP alone speaks for the great disparities between the two cities: Lagos' GDP in 2010 was said to be 80 billion USD, while in 2008, London's was 560 billion USD.[218] This very general comparison between London and Lagos reinforces the idea that Lagos indeed represents a condition totally alien to Western modernity. But it may at least be argued that, while Koolhaas provocatively reverses this idea by arguing that it may not be Lagos that is catching up with modern Western cities like London and Los Angeles, but rather London and Los Angeles that may be catching up with Lagos, Lagos' deterioration has been proportional to the development and accumulation of capital in these Western cities.[219]

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[216] See notably Abdou Maliq Simone. *For The City Yet to Come: Changing African Life in Four Cities*, Durham: Duke University Press, 2004; Idem. "People as Infrastructure: Intersecting Fragments in Johannesburg", in *Public Culture*, 16(3), 2004: 407–429.

[217] See notably Latour and Hermant. Op cit., 1998.

[218] Source: OECD. http://stats.oecd.org/Index.aspx?QueryId=48227

[219] See notably Matthew Gandy. "Learning From Lagos", in *New Left Review* #33, May–June 2005: 37–52.

1.2 Colonial past

The colonial history of Nigeria provides unavoidable evidence with which to understand Lagos' present situation. Situated on the northern shore of the Gulf of Guinea in West Africa, Lagos developed from the island principality of Oko, initially populated by Yoruba fishermen and farmers. From the sixteenth century on, the Portuguese progressively transformed it into a busy slave-trade centre. The British took over the city in 1861, but is only after the 1884 Berlin conference conferred the protectorate of the region to Britain and the military expeditions conducted by Frederick Lugard, that the unified colony of Nigeria was created in 1914. Whereas the colonial administrator preferred the hierarchic structures of the Muslim emirs in the inland North to the more decentralized Yoruba power structures of the coastal South to enforce indirect colonial rule, the capital was nevertheless established in Lagos. Despite many debates, Lagos remained Nigeria's capital until it was definitively moved to Abuja in 1991. This largely explains the great disjunction there has always been between the colonial elites and the African majority. The explosion of immigration to the capital notably due to the ecological disaster provoked by the exploitation of oil in the Niger delta — notably by the Dutch company Shell — only made this worse. In Gandy's words, "European villas with wide verandas and sweeping gardens (contrast) with the growing congestion of the 'African quarter', while the advanced gas, electricity and street lighting of the high-class commercial and residential districts compared favourably with the colonials' homelands".[220] Although this colonial partition is quite common to major African cities, the explosive growth to which Lagos has been subjected since the sixties seem to have pushed this logic to extremes. The sanitary crisis provoked by an epidemic of plague provoked a reaction from the colonial administration which, after years of relative indifference to the poor areas, decided to create the Lagos Executive Development Board in the 1920s. By the 1950s, the Board had however become more interested in land speculation than in infrastructural improvements in water supply, drainage, sanitation and housing for the

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[220] Gandy. Op cit., 2005: 43

majority of the population. The independence of Nigeria does not seem to have changed the situation. Gandy argues that the optimism that characterised Independence era Nigeria did not mask for long these latent and continuous economic and political tensions.[221]
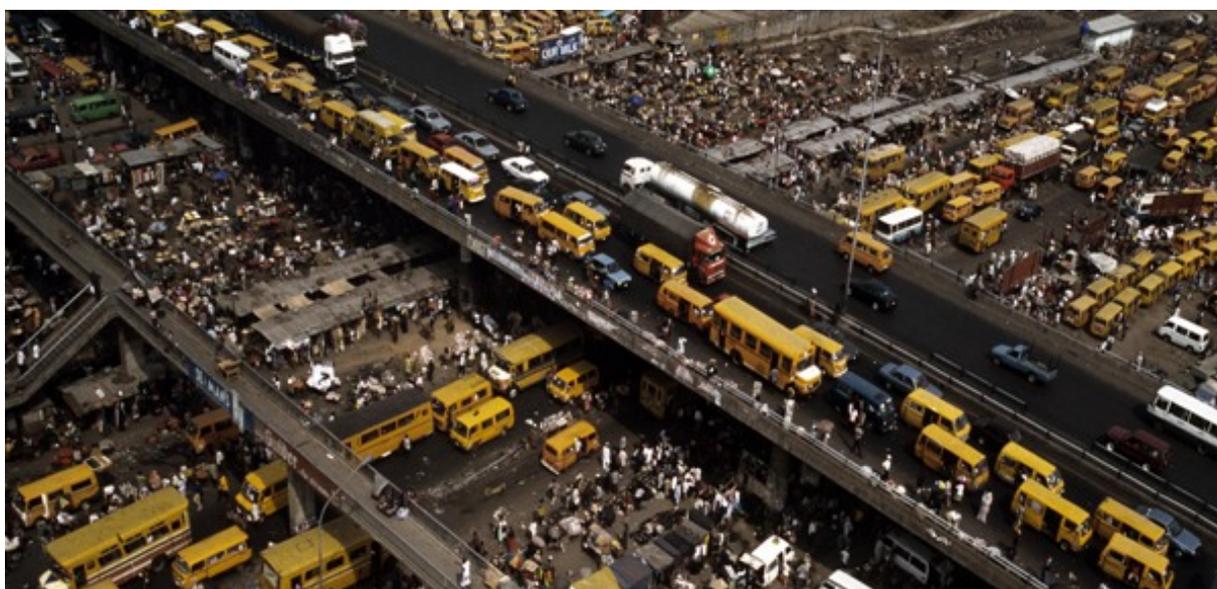
Koolhaas and van der Haak. *Lagos wide and close* (2006)

1.3 Beauty and the beast

Despite these endemic problems and tensions, Lagos has since then been repeatedly presented as the jewel of African economical development. Very much like its South African counterpart Johannesburg, Lagos is considered to be not only one of the main economical driving forces of the continent, but also an important cultural centre where Africa seems to be propelled into

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[221] "Fast growth in conjunction with minimum social investment led to overcrowding, exorbitant rents and arduous commuting distances, worsened by a gradual deterioration in rail, tram and ferry services. A critical trend was the growing dislocation between employment opportunities and the availability of affordable housing. By the mid-1960s land values in central Lagos neared those of similarly sized United States cities and the little space available for development was consistently allocated to elite low-density developments, in a continuation of colonial housing policies. The new ruling class and their generally Western-educated architects, engineers and planners favoured prestige projects that could attest to their vision of African modernity; Lagos soon boasted one of the continent's first skyscrapers". Gandy. Op cit., 2005: 44.

modernity.[222] Unlike Johannesburg, which hosted the Football World Cup in 2010, Lagos has not yet hosted a major international event. But the emphatic claims that surround the construction of Eko Atlantic City, Lagos' new financial and leisure district, suggest with confidence that Lagos could soon become another global city.[223]

Built on land reclaimed from the Atlantic Ocean right at the entrance of Lagos' bay, the Eko Atlantic City is envisioned by both the Lagos State government and its private associate in the project South Energyx as the African city of the 21st–century. The project recalls the situation that prevailed in the years when Lagos saw its first skyscrapers emerging on theskyline. While most of the city continues to struggle with the endemic lack and failure of basic urban infrastructures, the promoters of the project, both public and private, argue that the new city — since the project is not called the Eko Atlantic District but the Eko Atlantic City — will "combine space for residential, commercial, financial and tourist development."[224] While the city struggles to fulfil basic infrastructural needs that the state is too indebted to guarantee, the same state is however one of the main funding agents of what literally appears to be an urban transplant. This gigantic project is designed to spread over 10 km^2 of an artificial island extending Lagos' boundaries over the ocean. Discussed with Chinese and Dutch experts, it started in 2003. The main contractors are China Communications Construction Group, a global company specialised in dredging and landfill operations, and the Chagoury Group, one of the largest conglomerates in Africa. South Energyx is a subsidiary of the Chagoury group. Created specifically for this project, in 2006 it was awarded the concession to supervise land reclamation, develop infrastructure and "act as the exclusive authority over the development of Eko Atlantic" after completion in 2015.[225] While it is expected to act as a global catalyser and attract investments capable of transforming Lagos into

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[222] See notably Sarah Nuttall and Achille Mbembe (eds.). *Johannesburg: The Elusive Metropolis,* Duke University Press, 2008; and Enwezor. Op cit., 2002.
[223] This according to the definition given by Saskia Sassen. See Sassen. Op cit., 2001.
[224]See on the official website for the promotion of the Eko Atlantic City: http://www.ekoatlantic.com/press-pr/south-energyx-eyes-londons-partnership-for-eko-atlantic-project/
[225] http://www.ekoatlantic.com/media/timeline

"the new financial epicentre of West Africa by the year 2020"[226], the Eko Atlantic City is also designed to protect Lagos' littoral from erosion and flooding. Made of concrete blocks designed in the form of X's, the Great Wall of Lagos will enclose the new artificial island and protect the bay over more than 8 km. The Clinton Global Initiative recognised Eko Atlantic as: "An environmentally conscious city, built with nature to restore an original coastline and to protect Victoria Island, Lagos, from the severe risk of ocean surge and flooding...".[227] But it seems quite difficult to argue that this transplant from Dubai, designed according to standard plans and schema that have nothing to do with Lagos' general situation and problems, will restore, in harmony with nature, the original coastline of Lagos. Despite the fact that it may prevent the bay from future surge and flooding, this project is nothing else than a standard product designed to attract capital and generate investments that are not likely to benefit the city in general.

This project perfectly depicts the 1960s situation Gandy describes. The fact that the last elections appeared to be the most transparent the country has ever known does not seem to have truly inverted the structural tendencies that have determined Lagos' explosive and uncontrolled growth since then. While in the 1970s, old working-class areas were taken down to make way for the many bridges, viaducts, and flyovers that were needed for the development of the oil industry, the money that this generated never really benefited the population that were first affected by these major transformations. The combination of the successive military dictatorships that have ruled the country since 1966 and of the later policies of structural adjustment conducted under the tutelage of the IMF — from the slashing of tariffs and agricultural subsidie to, devaluing the naira, stripping out what remained of public education provision, deregulating finance, selling off state-owned industries and indulging in narco-profiteering on a massive scale — have profoundly exhausted both the country and the landscape. The Eko Atlantic City may now appear as a sign of Lagos' dynamism and economic growth. But its proximity with the floating slum of Makoko also

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[226] http://www.chagourygroup.com/real-estate/eko-atlantic/
[227] Idem.

reveals that these structural divides are even more critical than they used to be.

Faithful to the performative power of spectacular figures, Koolhaas repeatedly refers to Lagos' projected population numbers to argue that: "Every hour, more than 50 people start their new lives in the African city of Lagos".[228] But these figures mask crueler facts. Joseph Godlewski argues that between 1975 and 2000, Nigeria earned almost $250 billion in oil revenues. Yet during the same period the average income declined by more than 15 percent, while the number of people living with less a dollar a day more than quadrupled.[229] This reality can also be read in the urban landscape, where the dilapidated structures that were built to support the oil boom "(…) now encircle much of the inner core of the city, casting their shadows across the shacks and stalls that have colonized every available space".[230] The systematic exploitation of oil resources by dictating elites facilitating the profit made by international companies that were exempted from any social engagement generated "an extreme income polarization, hyperinflation, currency collapse and rising poverty and unemployment, as industrial and agricultural exports were devastated by the overvalued naira" — Nigeria's national currency.[231] Lagos' situation was made even worse by the decision to move the capital to Abuja. Wanting to get closer to their domestic base in the North of the country, the military oligarchs diverted many crucial investments Lagos needed in order to build their own shining city in Abuja. Due to this strategic move and to Nigeria's growing debts most of the infrastructure programmes planned in the 1970s — from the port and airport to roads, bridges, oil refineries and steel mills — were abandoned incomplete or left deteriorated beyond possible repair.

According to Gandy, "Lagos provides ample evidence for Mike Davis's contention that rapid urban growth in the context of structural adjustment, currency devaluation and state retrenchment has been a 'recipe for the mass

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[228] See Koolhaas' introductory remarks to the first film the project produced about Lagos. Koolhaas and van der Haak. Op cit., 2003.
[229] Joseph Godlewski. "Alien and Distant: Rem Koolhaas on Film in Lagos, Nigeria", in *Traditional Dwelling and Settlement Review*, Vol. 21 # 2, 2010: 16.
[230] Gandy. Op cit., 2005: 45
[231] Gandy. Op cit., 2005: 46

production of slums'".[232] The contrast is sharp between the Eko Atlantic City and what makes up the majority of Lagos' built space. Gandy argues that fewer than 5% of Lagos households are directly connected to the municipal water supply. The majority are left to illegal connections controlled by various gangs, private vendors and other informal installations. Waste water traverses the city in open drains while general waste accumulates in massive dumps where many people earn their living by collecting, selecting and selling recyclable materials. The electric system is known to be unreliable, and most of the people rely on private generators to supply most of the power. "Kerosene lamps light the shelters and market stalls where the blare of music contends with the generators' roar" Gandy writes; "(…) Most of the public street lights were stolen or destroyed years ago and at night the streets are eerily deserted, enveloped in darkness, save where illuminated billboards cast a faint glow across unmarked intersections, scattered with the debris of old car crashes."[233] The Eko Atlantic City provides a good example — and may be an intensification — of the way these harsh conditions coexist with much wealthier parts of the city. These historically colonial quarters have largely been turned into gated communities which, guarded by private companies, are almost militarily protected from their surroundings. Nigerian architect and anthropologist Tunde Agboda speaks about an architecture of fear.[234] Close to the apparatuses that were used in South Africa during the apartheid but also sometimes like the strategies used by the Israeli army in Jerusalem and other occupied territories,[235] Agboda describes a generalised distribution of defensive devices turning Lagos into a highly segregated city in which the marks and material manifestations of seclusion are heavily present. From high walls and various other types of fences to barbed wire and piled glass put on top of the walls surrounding individual properties or larger residential areas, an entire repertoire of defensive and almost military

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[232] Mike Davis, 'Planet of Slums', in New Left Review # 26, March–April 2004:10–11 ; Gandy. Op cit., 2005: 49.
[233] Gandy. Op cit., 2005: 52.
[234] Tunde Agboda. *Architecture of Fear: Urban Design and Construction Response to Urban Violence in Lagos, Nigeria,* Paris: IFRA, 1997.
[235] Michal Givoni Sari Hanafi and Adi Ophir (eds.). *The Power of Inclusive Exclusion: Anatomy of Israeli Rule in the Occupied Palestinian Territories,* London: Zone Books, 2009.

architecture reinforces the strong historical division between low to medium density areas and the compact and anarchic slums that seem to extend continuously.[236]

Aerial view of Makoko. DR (2004)

Compared to this reality, the project of the Eko Atlantic City and its promise of an African Modernity that will attract foreign investors and connect Lagos to the expanding lines of global financial capitalism seems to belong to a very different world. It seems however possible to argue that what it promises is not so different from what the big infrastructural developments supporting the oil boom were promising in the 1970s. Considering what happened then and the similar type of political and economical assemblages on which this project is based, it seems possible to imagine a similar scenario. Benefiting the oligarchs in charge of the country, foreign investors, international companies, and a few privileged Africans, this

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[236] Commenting on Agboda's book, Godlewski writes: "The general appearance of most buildings in the low to medium density areas of Lagos is like that of fortress/strongholds. . . In the areas around the houses, strong assertions of territoriality were made through the building of fences of various types." Godlewski. Op cit., 2010: 16.

project could very well increase the debt and political disengagement of the State from its responsibilities towards the majority of the population. It seems thus possible to imagine that what appears now as the promise of a shining future for the city will end up like those heavy infrastructures that, abandoned incomplete or left deteriorated beyond any possibility of repair or even destruction, make up Lagos' present dystopian landscape.[237]

2. <u>Koolhaas in Lagos</u>

This speculative scenario shares much with Koolhaas' radical and provocative hypothesis. As he has stated, Koolhaas was driven to Lagos by a will to understand a city that was probably amongst those to change the fastest in the world. His main contention, however, is that, far from representing conditions en route to entering modernity, Lagos presents conditions that modernity may on the contrary only be catching up with:

"We are resisting the notion that Lagos represents an African city en route to becoming modern… Rather, we think it possible to argue that Lagos represents a developed, extreme, paradigmatic case-study of a city at the forefront of globalizing modernity"[238]

Contrary to the common idea that African cities may only be catching up with modernity, Koolhaas quite radically suggests that Lagos may on the contrary represent the future of modernity. Connected to this hypothesis is the argument, implicitly running throughout the study, that Lagos' apparently undecipherable chaos in fact produces forms of organisation that we may learn from. Central to his discussion of the opposition between architecture and urban complexity, the concept of the generic is not explicitly brought to the fore here. But I would argue that it nevertheless runs throughout his entire account and renders his analysis of the generic more complex. No longer attached to the relation it entertains with Modern forms of

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[237] See Gandy. Op cit., 2005: 45-46)
[238] Koolhaas and al. Op cit., 2000: 653

standardisation, no longer attached to these highly ordered and formalised cities that lead him to the model of the generic city, his analysis of Lagos rather looks at the qualities of informal and vernacular forms of urbanism that, though unplanned, are nevertheless not less generic. Not less generic here essentially means two things: on the one hand it means that, although highly diverse and heterogeneous, urban dynamics and morphological organisations appear in Lagos to be also highly repetitive, relatively homogeneous, and determined by more structural rules; on the other hand, it means that although highly specific and contextual, the problems that Lagos copes with and the particular solutions it has recourse to appear to be much more paradigmatic.

2.1 Stardust Lagos

While Koolhaas has not given up the ambition of publishing a whole book on Lagos, this project has been continuously delayed, and it is at the moment only through fragmentary publications, lectures, and two films, that it is possible to account for what this project has produced. The first results have been published along with other cases studied by the Harvard Project on the City in the collective book *Mutations* (2000).[239] This publication consists in a short text written by Koolhaas, which accompanies the aerial photographs taken by Edgar Cleijne. The project has also been part of the international art exhibition Documenta 11 (2002), in Kassel. Koolhaas gave lectures both in Lagos and Kassel, leading to a publication in the book edited for the occasion by the Nigerian curator Okwui Enwezor.[240] Further evidence of the work done on Lagos can be found in the two films made by Dutch film director Bregtje van der Haak: *Koolhaas/Lagos* (2002) and *Lagos: Wide and Close. An Interactive Journey into an Exploding City* (2005). Although they remain quite fragmentary compared to the other studies that have been published on their own by the Harvard Project on the City, these different works provide an interesting basis on which to engage with Koolhaas' work on Lagos.

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[239] Koolhaas and al. Op cit., 2000.
[240] Enwezor. Op cit., 2002.

These fragmentary accounts have triggered a lot of interest around Lagos, but they have also been subject to various criticisms. Although Koolhaas' project is not isolated, it can be argued that it is notably due to his project that the city has recently received much more attention. Replacing this project in the context of the growing attention that has been paid to Lagos in particular and to African cities in general, Gandy has notably shown that it did not "(...) (come) so much from development specialists or Africa scholars but from a high-profile convergence of architectural and cultural theory and critical urban studies, often focused around major international art exhibitions".[241] Emphasising the active role that both Enwezor and Koolhaas played in this process, Gandy further argued that this growing interest should not mask divergent approaches and interpretations. Gandy distinguishes between two dominant approaches. The first is "an eschatological evocation of urban apocalypse" that presents Lagos as a giant chaos dominated by poverty, violence, disease, political corruption, uncontrollable growth and manic religiosity.[242] This perspective often reinforces the sense that it represents the great dystopian other of globalisation. Lagos appears to be a nightmare heavily contrasting with Western dreamlands, where informality means crime, and where the combination of political corruption and a dramatic lack of infrastructure constantly threatens the city's total collapse.[243] Despite sharing the same first observations, the second privileged approach sharply contrasts with this perspective. This is notably the case of Koolhaas who, as mentioned before, radically reverses this argument. According to him, the chaotic dimension of Lagos' development only highlights "the homeostatic complexity of newly evolving socioeconomic structures, with the city conceived as a series of self-regulatory systems".[244] Lagos' chaotic organisation is no longer seen to be

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[241] Gandy. Op cit., 2005: 37.
[242] Gandy. Op cit., 2005: 38.
[243] See Pep Subirós. "Lagos: Surviving Hell", in *Africas: the Artist and the City*, Barcelona : Centre de Cultura Contemporània de Barcelona, 2001: 34-45. See also Robert Kaplan. *The Coming Anarchy*, New York 2000: 5-15; Peter Richter. "Flirt mit dem Desaster: Was macht die 'documenta' in Nigeria?", in *Frankfurter Allgemeine Zeitung*, 24 March 2002.
[244] Gandy. Op cit., 2005: 39.

abnormal. Rather it may prefigure another model, completely ignored by the standards prevailing in Western modernity.

2.2 Change

The first thing that drove Koolhaas to Lagos is the question of change. Part of the research programme he conducted at Harvard Design School between 1996 and 2001, the Lagos project unfolds according to the claim that the city has not only changed significantly, but continues to do so at an incredible speed.[245]

Lagos appeared to Koolhaas as a possible manifestation of radical 21st–century urbanism.[246] This may seem too provocative to be considered seriously. But I would argue that it is precisely this kind of provocative argument that makes Koolhaas' account so interesting and worth studying. This argument is not an apology of the apocalyptical scenario to which modernity would necessarily bound. Koolhaas does not announce modernity's premonitory funerals, but rather explores in Lagos conditions that can be read symptomatically. Lagos is a symptom of global urbanisation. Koolhaas adds the idea that the solutions invented there every day to cope with this situation may not only work, but may address challenging questions to architecture and more formally modernised cities. The important aspect that Koolhaas emphasises again concerns the problem of architecture's relation to urban complexity, and challenges the idea that the chaotic is necessarily opposed to harmonious order. Lagos indeed shows that order is not necessarily harmonious, and that discovering homogeneous and simple rules of organisation does not necessarily mean deterministic planning. Constant change also produces certain forms of order, which may not be obvious, but may be more implicit. However, it is possible to decipher them: what appears at first complete chaos, the dystopian result of an history marked by military dictatorship, natural disasters, economic crisis, explosive

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[245] This is what Koolhaas explains in his introductory remarks to the first film produced within this project. See Koolhaas and van der Haak. Op cit., 2003.
[246] See Koolhaas and van der Haak. Op cit., 2006; Koolhaas. Op cit., 2002; Koolhaas and al. Op cit., 2000.

growth and heavy debts, nevertheless produces (alternative) regimes of order. This is notably how Tim Hecker describes Koolhaas' project: "In essence, Lagos appeared to be the epitome of disorder on a massive scale, but (Koolhaas) wanted to examine what regimes of order lurked beneath a veneer of urban chaos".[247] Koolhaas contends that behind apparent chaos and dysfunction lies something in fact highly ordered, even systemic, something that works. Insisting on emergent properties, he argues that Lagos is in fact at once a dystopian manifestation of the possible future of Western cities and a manifestation of radical 21st-century urbanism, a radical manifestation of (non-Western) modernity.

Criticised by different scholars for being superficial and for eschewing real forces at play in this city, Koolhaas' approach nevertheless provides an interesting lead concerning the transformation of this relation between architecture and the city that, despite having been solved by modernism in terms of standardisation, seems to have then simply been rejected by a postmodernist valorisation of complexity as sheer (and subjective) diversity. Although Koolhaas' argument here seems indeed to share much with the way postmodernism repeatedly praised differences, contradictions, complexities, diversity and, in brief, everything that was supposed to reassess architecture's normative relation to the built environment, I would argue that his attempt to understand the implicit order lying underneath Lagos' urban chaos is what needs to be further developed. Koolhaas seems to have derived this idea from the aerial visit he made on board the Nigerian president's helicopter, but I would argue that a more careful exploration is necessary, namely through a methodology of topological navigation.

2.3 Order from the air

Faithful to his more general approach to changing situations, Koolhaas' method is one of cold observation, limiting subjective judgement and

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[247] Tim Hecker. "The Slum Pastoral: Helicopter Visuality and Koolhaas' Lagos", in *Space and Culture,* vol. 13 # 3, August 2010: 257.

emphasising function.[248] Cultural theorist Frederic Jameson argues that Koolhaas' aim is to "explore a new reality", not to come up with solutions.[249] But while Jameson eventually suggests that this method could prove to trigger new critical possibilities and strategies, many authors argue on the contrary that this "amnesty of the existent" cannot but ultimately be complicit with the forces shaping the reality Koolhaas observes.[250]

Hecker argues that Koolhaas' attempt "(…) to show Lagos as rational and organised instead of a city of apocalyptic chaos" is largely undermined by his rhetorical argument according to which Lagos must be first presented "(…) as a mirage of disorder, chaos, unbelievable population density, and an apparent breakdown of conventional forms of infrastructure" in order to be then almost magically "recovered as an icon of human ingenuity" providing more paradigmatic solutions.[251] Following Hecker, it can indeed be argued that this reversal of chaos into systematic order is actually bound to the aerial perspective Koolhaas and his collaborating photographer took from the presidential helicopter. Koolhaas indeed approached the city following three main steps. The first time, Koolhaas recalls that, out of fear and intimidation, they merely visited Lagos by car, without adventuring further into the city's violent atmosphere:

"Our initial engagement with the city was from a mobile position. Partly out of fear, we stayed in the car. That meant, in essence, that we were preoccupied with the foreground . . . Lagos seemed to be a city of burning edges. Hills, entire roads were paralleled with burning embankments. At first sight, the city had an aura of apocalyptic violence; entire sections of it seemed to be smouldering, as if it were one gigantic rubbish dump."[252]

This first visit does not mention the order later analysed by Koolhaas. According to the perspective allowed by the moving car, they were only able

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[248] Jencks. Op cit., 2002: 180.
[249] Frederic Jameson, "The Future City", in *New Left Review* # 21, May–June 2003: 66.
[250] Rem Koolhaas. « Changements de dimensions », interview with Jean–François Chevrier (1998), in *L'architecture aujourd'hui,* n°361, November–December 2005.
[251] Hecker. Op cit., 2010: 264.
[252] Koolhaas and al. Op cit., 2000: 652.

to make superficial observations in keeping with "the eschatological evocation of urban apocalypse" that Gandy identifies in other accounts. On their second visit, they left their cars. And while this seemed to largely confirm their first observations, it nevertheless allowed them to refine their account, and to begin to understand the more complex processes that were taking place in this "gigantic rubbish dump":

"On a later visit, 'we ventured out of our cars' and discovered that there were in fact 'a number of very elaborate organizational networks' at work on the garbage heaps: The activity taking place was actually not a process of dumping, but more a process of sorting, dismantling, reassembling and potentially recycling. Underneath the viaducts there was a continuous effort to transform discarded garbage."[253]

But it is only during their third visit, which this time, took the form of a flight over the city in the Nigerian president's personal helicopter, that Koolhaas truly started to speak about systemic order:

"Finally, on the third visit, 'we were able to rent the helicopter of the President'. This allowed the team to swoop in comfort over the city's slums, marvelling at the swarm of human activity below: From the air, the apparently burning garbage heap turned out to be, in fact, a village, an urban phenomenon with a highly organized community living on its crust . . . What seemed, at ground level, an accumulation of dysfunctional movements, seemed from above an impressive performance, evidence of how well Lagos might perform if it were the third largest city in the world."[254]

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[253] Koolhaas. Op cit., 2002: 177
[254] Idem.
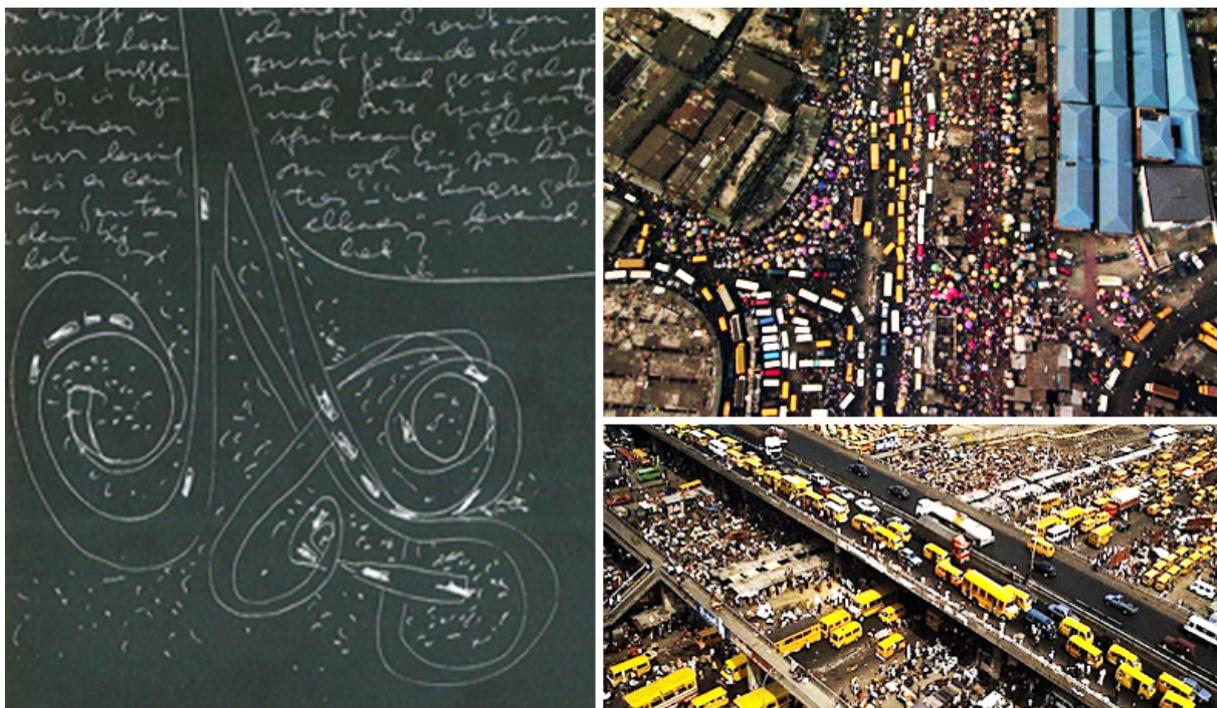
Koolhaas and Cleijne. *Oshodi Market, Lagos* (2000)

Comparing this aerial account to the famous argument made by Le Corbusier after he flew over Rio de Janeiro, Hecker argues that this observed order is actually illusory, generated by a panoramic perspective that can only escape and misunderstand the concrete practices that shape this reality. Arguing that these photographs adopt a low-oblique perspective that eschews the horizon and magnifies the infinite forms of Lagos' urban sprawl, Hecker strongly opposes Le Corbusier's famous sentence according to which "the airplane indicts the city".[255] For Hecker, this only reproduces the modernist illusion of order and harmony, and eludes political and economical dynamics. Koolhaas' contention that Lagos provides evidence of an homeostatic morphological system generated from the chaotic aggregation of many competing and contradictory individual practices is only an illusion produced by aerial sublimation. Although the second film produced as part of Koolhaas' project is designed to bring together and to allow navigation between these different levels of analysis, it is again the aerial gaze, floating above the entire city and capturing it in a few series of strong and bold

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[255] Le Corbusier. *Aircraft*. New York: Universe, 1988.

affirmations that dominates. The film allow the viewer to choose between two different points of view: a close, mostly pedestrian, and a wide perspective, made largely of aerial footage taken from the helicopter; and between three different soundtracks: interviews with Lagos' inhabitants, sounds of the city, or Koolhaas' comments. Godlewski connects this to the distinction Michel de Certeau used to make between the "walking city" and the "panorama-city". While de Certeau defined the walking city as that reality that is experienced from the ground, at the same level and speed as its inhabitants, he defined "the panorama-city [as] a 'theoretical' (that is, visual) simulacrum, in short a picture, whose condition of possibility is an oblivion and misunderstanding of practices. . . ."[256] Following this, Godlewski argues that Koolhaas' arguments are ultimately nothing more than "panoramic speculations" which, much like the aerial musing of his collaborating photographer, "commit the same 'misunderstandings of practices'"."[257]

The general critique is that Koolhaas' speculations are essentially oblivious to the historical and political complex causalities that underpin Lagos' chaotic reality. Not only omitting these dimensions, his analyses have also been criticised for ultimately imposing a systemic and harmonious fantasy on this reality. This is notably significant in Gandy's account, "Learning from Lagos".[258] Having produced the most thorough and probably harshest critique of Koolhaas' research project, Gandy argues that Koolhaas' neo-organicist position is ultimately linked and limited to the flawed celebration of what exists. Comparing Koolhaas' assertions to the classic organicist texts of urban discourse, Gandy argues that whereas the latter used to metaphorically mobilise concepts and theories from biology to explain urban dynamics in the terms of the alimentary, breathing and nervous systems, Koolhaas relies on cybernetic metaphors to contend that urban space actually expands and transforms like a self-organising multiplicity of horizontal networks.[259] This in turn allows him to argue that

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[256] M. de Certeau, *The Practice of Everyday Life* (1980) Berkeley: University of California Press, 1984: 93.
[257] Godlewski. Op cit., 2010: 14.
[258] Gandy. Op cit., 2005.
[259] Gandy. Op cit., 2005: 39.

the functioning of Lagos, seen from above in more systemic and ordered way, "illustrates the large-scale efficacy of systems and agents" considered informal or illegal, and the fact that its survival strategy "might be better understood as a form of collective research, conducted by a team of eight-to-twenty-five million".[260] According to Gandy, this cybernetic metaphor only reinforces the contention that the micro dynamics that organise Lagos' informal economic life are those that ultimately allow Koolhaas to argue that Lagos is a city that works, and where violence, poverty, and chaos, can be turned into forms of ingenuity generating both opportunism and optimism. Most of Koolhaas' arguments are indeed grounded in his observations of all these markets and economical sites of exchange that flourish everywhere and contaminate every available space — from traffic jams and decayed infrastructures to rubbish dumps and the ocean. All of Koolhaas' pubished accounts indeed emphasise informal economy as being the indicator that, although it does not function the way most Western cities do, Lagos is a city that works. For Koolhaas, Lagos' informal economy is not only proof that the city works, but it proves we may have a lot to learn from this city, and it may even be an interesting model of radical urbanism for the century to come. Again, the most evident critique is that this completely eschews the political and historical realities that have precipitated and that maintain this city in the chaotic and violent state in which it is. As Gandy writes: "The informal economy of poverty celebrated by the Harvard team is the result of a specific set of policies pursued by Nigeria's military dictatorships over the last decades Under IMF and World Bank guidance, which decimated the metropolitan economy."[261] The problem with Koolhaas account is that, while it does try to understand according to which simple rules and redundant principles such a chaotic city as Lagos is organised, his panoramic answer merges with an account of individual behaviours that seems indeed to mirror the work of economists such as Hernando de Soto and Coimbatore Krishnarao Prahalad who, following neoliberal doctrines, see the informal economy to be the outcome of micro entrepreneurs using their inventive and

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[260] Koolhaas and al. Op cit., 2000: 652, 719.
[261] Gandy. Op cit., 2005: 42.

individual creativity. In their analyses, they quite fantastically reconceptualise the notion of the urban poor.[262]

Recycling in Lagos Dump. Credit: Boellstiftung.[263]

Koolhaas' provocative argument about Lagos' relation to global modernisation seems indeed tainted by a hasty sense of homeostatic order, and by the contention that the ability to sustain and encourage market relations is the main function that a city can perform.[264] This is more problematic with Lagos, where this fantasy of individual entrepreneurship is

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[262] See Godlewski. Op cit., 2010: 16; C.K. Prahalad, *The Fortune at the Bottom of the Pyramid,* Upper Saddle River, PA: Wharton School Publishing, 2004: xiv ; H. de Soto, *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else,* New York: Basic Books, 2000: 5.

[263] http://www.flickr.com/photos/boellstiftung/5342610093/sizes/m/

[264] Gandy writes: "If Koolhaas and his colleagues, soaring over the city, can claim that the sight of the traders crammed beneath the Oshodi flyover is 'proof and evidence' that Lagos urbanism is 'one that works', the conclusion is inescapable: in their perspective, it is the city's ability to sustain a market that is the sole signifier of its health." Gandy. Op cit., 2005: 52.

pasted on behaviours which, despite displaying ingenuity and courage, are nevertheless merely dictated by survival in conditions under which Koolhaas would surely not want to live for five seconds' time. This articulation between an order that only emerges once one looks from a distance, and the explanation of this emergence in terms of chaotic but vivid and innovative types of informal market relations, may underline another problematic articulation in Koolhaas' work. Except for Jameson, all the authors I have mentioned reproach Koolhaas' distant and functionalist perspective, which mainly serves to celebrate the city's extreme conditions. Gandy writes:

"In a final passage in *Mutations*, Koolhaas and his colleagues cite with approval Robert Kaplan's call in *The Coming Anarchy* for 'a new round of postcolonial 'exploration' of West Africa, with 'different intentions and a more intensive methodology' than those of the 19th century. But what intentions? In the 19th century, colonial campaigns aimed to impose new forms of power relations; is the goal of 21st century exploration nothing more than to celebrate the outcome of existing ones?"[265]

Gandy's argument seems even more crucial in that it recalls the more general critique made of Koolhaas' work on the generic city. Although it has triggered less fully developed reactions than the unpublished Lagos project, Koolhaas' text on the generic city has generally been received in the same way. Acclaimed by many for being an original and incisive realist account of contemporary global urbanisation, it has been mainly criticised, for the almost same reasons, of merely and dangerously celebrating the outcome of existing conditions. Before further developing this account of the generic in architecture in relation to Lagos, I would like to return, although less specifically, to the politics of Koolhaas' generic.

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[265] Idem.

3. <u>The politics of Koolhaas' generic</u>

Although the Lagos work published so far indeed dramatically lacks political and historical accounts, I am hesitant to agree entirely with Gandy's conclusions. Considering that what has been published represents hypotheses rather than fully developed work, and considering that when entirely published, the other projects conducted by Koolhaas at Harvard seem much more convincing to incorporate these dimensions, it may be argued that most flaws about the Lagos project are linked to its being unfinished, unpublished and provisional. However, this does not prevent us from fully engaginng with what has effectively been published. And, as it has been shown, from this point of view many critiques seem largely justified. It is even more the case of Gandy's particular critique, for it seems to run generally throughout all of Koolhaas' work. Gandy mainly reproaches Koolhaas' celebration of the existing conditions. I would however argue that, although it echoes the way Modernist architects spoke about the industrial revolution, celebrating and applying to the city and architecture the corresponding logic of standardisation that was structuring the revolution, Koolhaas' work on the generic dimension of architecture in times of global urbanisation does not simply celebrate what exists. More so, it corresponds to what Jean Francois Chevrier defines in relation to Baudelaire and modernity. Recalling the way Foucault saw in Baudelaire an attitude typical of modernity, Chevrier argues that Koolhaas presents a similar method which, despite echoing in emphatic and heroic terms the present changes and transformations, does however not dismiss the possibility of imagining alternative and critical scenarios.[266] Jameson positions Koolhaas in a similar way. Arguing that it may now be easier to imagine the end of the world that the end of capitalism, Jameson argues that Koolhaas' emphatic and realist method can indeed point to new critical possibilities. Jameson explains

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[266] See Jean Francois Chevrier. *Des Territoires,* Paris: L'Arachnéen, 2010; Rem Koolhaas. Op cit., 2005; Michel Foucault, "What is Enlightenment?" (1984), in Paul Rabinow (ed.). *The Essential Works of Michel Foucault 1954–1984–, Volume 1: Ethics, Subjectivity, and Truth,* New York: New Press, 1994: 309–310; Charles Baudelaire, "The Painter of Modern Life" (1896), in *The Painter of Modern Life and Other Essays,* Trans. Jonathan Mayne, New York: Phaidon, 1964.

Koolhaas' strategy by saying that while "(...) someone once said that it (was) easier to imagine the end of the world than to imagine the end of capitalism, (it was possible to) now revise that and witness the attempt to imagine capitalism by way of the end of the world".[267] Because capitalism seemed to have pre-empted any possibility of imagining other futures and utopias, the idea of reversing the argument by speculating on the basis of actual dystopian situations could indeed lead to another and revived type of critical positioning. According to Jameson, Koolhaas' speculations could in fact be considered to be "a sharp edge inserted into the seamless Moebius strip of late capitalism".[268] I would argue that Koolhaas' Lagos project follows a difficult and very tenuous path between this, and the possibility for his "textual proclamations and visual shock therapy (...) [to also] encourage a laissez-faire logic of self-help."[269] And while in Lagos this may entail greater ethical and political problems than in many other situations, I would nevertheless contend with Hecker that this method is "(...) as much an apolitical ambivalence as [it is] a new type of realist-critical positioning."[270]

3.1 Lagos wide and close

When taken generally, the critique of the distant and wide perspective adopted by Koolhaas seems to apply to most of his theoretical work. The repeated comparison with Le Corbusier is especially interesting in this case. Hecker argues that Koolhaas' aerial perspective only repeats Le Corbusier's idea that "the airplane indicts the city". This, he contends, generates illusions of order necessarily produced by large-scale analyses. This is a relatively simple and well know phenomenon. What on close examination appears highly complex and differentiated becomes more ordered and simpler once it is apprehended more distantly. Distance eschews the details, erases many distinctions, many contradictions, and ultimately generates more coherent pictures. It has already been shown that this general critique of all

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[267] Jameson. Op cit., 2003: 76.
[268] Idem.
[269] Hecker. Op cit., 2010: 266.
[270] Idem.

encompassing models and distant perspectives can be related to the unfolding of post-Modern critique. Echoing the way Venturi repeatedly criticised Modern over-simplification and univocal models, these critiques also arguably repeat De Certeau's argument against the panorama-city. Opposing concrete historical and social facts to formal morphology and systemic abstraction, these critiques ultimately do not seem to do more than opposing what de Certeau calls the walking city, the city experienced at human scale, perceived in presence, to what he called the panorama-city, this abstract and indefinite figure that seems to float anonymously above any possible subjective apprehension. As discussed in the introduction of this thesis, I would however contend that the conditions that characterise our presence in the anthropocene have precisely eroded the foundations on which such claims could be made. Having eroded the distinctive opposition between subjective interiority and objective exteriority, the anthropocene has also completely destroyed any meaningful aspect of opposing the micro and macro in terms of absolute position and size.

This appears quite significantly in Lagos. Highly complex, vibrant, expanding indefinitely and subjected to various transformations and morphisms from one area to the other, Lagos does not seem to be arguably more adequately decipherable from de Certeau's close walking perspective than it is from more distant positions. Although I would not contend that the helicopter is the best way to apprehend the city, and that the aerial views produced in Koolhaas' project are not problematic, I would nevertheless argue that the problem is not in abstraction as such. The problem is not in the opposition between the close and the wide perspective. The problem does not even lie in their articulation. Rather it lies in the fact that they can no longer unfold in terms that would associate the close perspective with the detailed locality directly available from the ground on the one hand, and the wide perspective with the overall explaining context on the other.

The paradox is that, while the anthropocenic situation requires understanding that these different planes are no longer progressively ordered from the smallest to the largest, that they no longer linearly unfold from the more complex and chaotic to the more simple and stabilised, they

must however be seen to be heterogeneous. For modernist architects, these different planes were actually homogeneous. Differing in size, they could however be ordered linearly. This characterises Le Corbusier's approach for example. Theoretically inductive, his method was deductive in practice. Because induction could work in linear fashion, going from the particular to the universal, the universal could be then also applied in linear way. And standardisation was the industrial vector allowing this linear application, this materialisation of the universal model. The way Koolhaas approached Lagos seems to share much with the modernist position. From the mobile car to the more immersed state of the walking visit and the comfortable aerial contemplation of the city from the presidential helicopter, Koolhaas' argument also goes from the most chaotic to the more systemic. In that sense, Koolhaas follows a similar inductive path. The way back however, whether it would be question of architectural practice or of further theoretical definition, seems much more obscure. The problem is that Koolhaas' general argument about homeostatic order is then applied in the same linear terms. Contrary to this, I would argue that this second move, criticised by most of the authors I have discussed above, is in fact made impossible by the fact that the first movement can no longer be seen in linear terms. The systemic order observed by Koolhaas from above does not contain the chaos observed on the ground. It is hence not this systemic order that is illusory, but its linear relation to the other planes of observation. This is the paradox emphasised by the Anthropocene. While modernism's dialectics were able to envision the transcendental and homogeneous integration of planes whose heterogeneity could nevertheless unfold according to linear measurements, the present problem is to know how it is possible to articulate planes that are at once heterogeneous, incommensurable, and nevertheless immanent. I use the term incommensurable because their differences no longer unfold in a linear fashion. But I also use the term immanent, because it would be illusory to think that, because Koolhaas is able to fly concretely over the city, his position can be detached from the immanent plane of relations that shape Lagos more generally.

I would argue that this is precisely the question that unfolds in topological terms. I have shown that, although Latour's actor-network framework allowed for a move away from this pre-established linear account, it also more problematically eschewed the question of more systematic dynamics. However, topology may give us the necessary tools to invent adequate ways of navigating these complex planes. The question bears on the continuities between these different planes, about articulations allowing the passage from one to the other, to connect one with another, without integrating them into either some more general context or some constant structure. Despite the modernist residues that lie in Koolhaas' Lagos work, his generic drive towards the understanding of morphological and dynamic continuities also address this question in ways that can no longer unfold either in absolute chaos and contextual descriptions, or in standard explanations.

3.2 Political ambivalence

As it was argued earlier in this thesis, I think that it is this dynamic and relatively undetermined dimension in which the generic seems to unfold that radically distinguishes it from any notion of standardisation. As it was also shown before, the ambivalence remains in Koolhaas' work. Koolhaas' interest for the generic seems to have unfolded according to a general will to understand urban dynamics that no longer corresponded to the traditional view of the city. Contending that this traditional view was essentially modernist and European, Koolhaas started by looking at different situations. First in the United States, with the notable effort he made to understand the suburban condition of Atlanta. Then in Asia, where he was particularly interested in the incredible speed and scale of changes prompted by urbanisation. The explosive development of entire regions, like in the Pearl River delta, appeared to him to display a new form of urban condition. New continuities appeared between domains that European modernity used to understand as being clearly separated. The Harvard Project on the Pearl River Delta particularly focused on infrastructures, and the way they were building

and organising new forms of landscape that were no longer bound to any strict opposition between the natural background and the active organisation of urban space, but rather merged natural and built elements in various different ways.
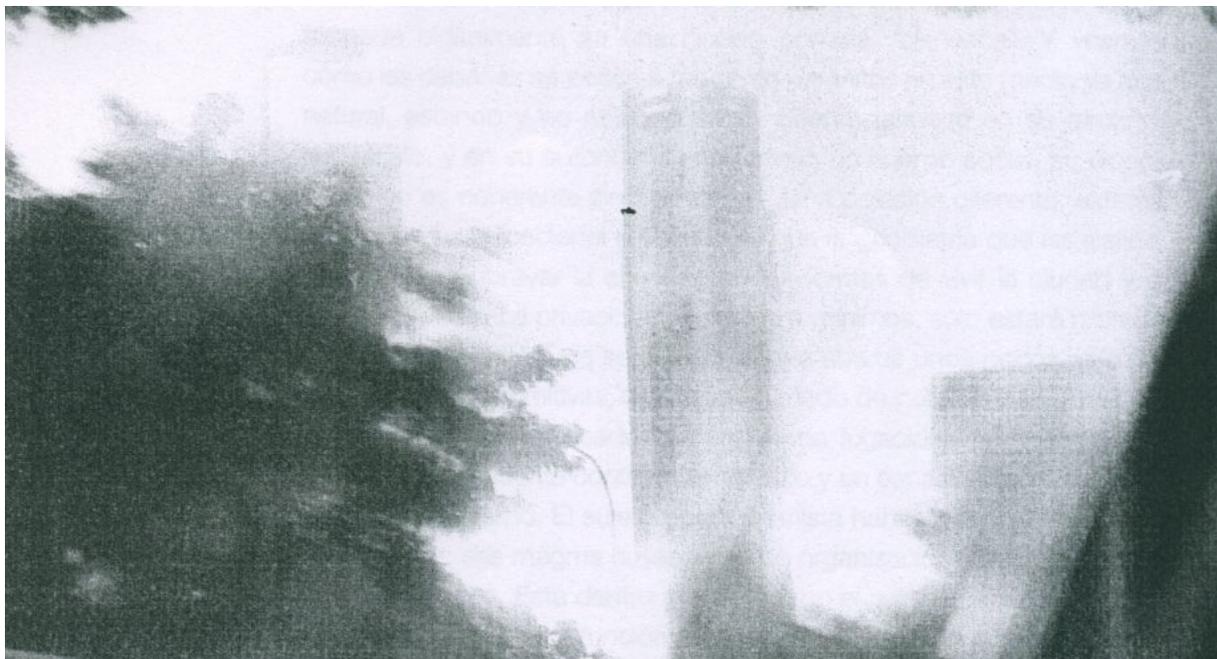
Koolhaas. *The generic city* (1994)[271]

Koolhaas discussed the way differences between cities and between different elements and areas within these cities were increasingly radicalised. But as it was also argued before, what Koolhaas started calling the city of exacerbated differences should not be read against the generic model he extrapolated from both Atlanta and Singapore. Far from being the opposite of the generic city, the city of exacerbated differences insists on the fact that generic continuities are precisely generated by this exacerbation. This is what most notably contrasts his position with the postmodernist emphasis on the desirability of differences and variations. Contrary to many postmodern architects who would see in this proliferation of differences the manifestation of some generalised liberation from modern standardisation that should be further encouraged, Koolhaas insists on the fact that to

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[271] Image extracted from Koolhaas. Op cit., 1995: 1238.

consider contemporary cities in terms of complex systems does not mean that they are ultimately irreducible to the production of more generic outcomes. While this is indeed substituting another logic for that of standardisation, it does not mean that standardisation is no longer operative. Far from opposing complexity to the generic, Koolhaas rather implicitly contends that, whereas standardisation determined architecture's relation to the modern city, the generic determines its relation to the complex city. Koolhaas thus engaged his readers to consider the qualities of these generic patterns, forms, and functions. While everybody was looking at differences against standardisation, his text on the generic city reversed many expectations. It argued that repetition was perhaps becoming more interesting than the different and the particular. The text thus unfolded according to the provocative argument that while the critique of modernism was still bound to the postmodern valorisation of diversity and difference, it was in fact the repetitive, the redundant, the generic that was the promising and interesting thing.

This provocative reversal of argument proposed by Koolhaas may have acknowledged before many other authors and architects that it was actually differences that had become the driving force of capitalist economy. Consequently, revealing the qualities inherent to the ambivalent notion of the generic could open new critical possibilities. As industry ruled as the driving force of capitalism, standardisation appeared to be its best mode of normative development. But now that this driving force can be said to have shifted from industry to finance and free market relations, it seems that it is differences, more in terms of personalisation than in terms of real singularisation, that has become its new prominent vector. It is according to this change that Koolhaas' interest for the generic must be read.

I would further contend that it is indeed also according to this perspective that his provocative argument on Lagos must be read. Here his emphasis on the market and self-organisation appears even more problematic. It indeed seems highly dubious that, as C.K. Prahalad would argue, the informal ingenuity that allows the majority of Lagos' inhabitants to survive and cope with poverty could represent an interesting entrepreneurial

solution to both poverty and urban planning's inherent flaws.[272] It indeed sometimes seems that Koolhaas' optimistic emphasis on market relations and informality's potential does no more than relay those ideas according to which populist neoliberal proponents seek to eliminate poverty through profit. Very close to what Koolhaas sometimes argues, these people see enormous potential in the vast population of marginalised workers in situations where informal economy dominates. The problem does not reside in the highly debatable argument according to which the solution to the extreme inequalities and poverty produced by capitalism would lie in the larger development of capitalism itself, but may be even more in the fact that they reduce everything to market relations and entrepreneurship. Godlewski writes:

"Koolhaas's observations fetishize economic activities, yet the subjects he studies seemingly have no means to meaningful political action. Instead, they're diminished to simple economic actors in a city conceived as a giant 'teeming marketplace.'"[273]

Reducing these marginalised workers to pure economic actors, this emphasis even more problematically avoids addressing the more general dynamics of domination that maintain them in these marginalised conditions. Celebrating the poor's entrepreneurial ingenuity and resilience is also a way to avoid dealing with the mechanisms that allow the rich to stay rich. At this point, Koolhaas' account of Lagos from the presidential helicopter seems almost unbearable, for the illusion of immunity that supports his homeostatic observations is the same that prevents him from addressing the more general conditions that force these people to be economically ingenious and creative. Koolhaas' emphasis on the market and informal self-organisation seems to deepen the ambivalence that could be found in his earlier texts. I have already argued that the accusation of cynicism that is continuously addressed to Koolhaas may in fact be bound to the way his text on the

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[272] Godlewski. Op cit., 2010: 10
[273] Godlewski. Op cit., 2010: 11

generic city kept hesitating between the valorisation of the generic in terms of something that was unevenly produced by modern standardisation and could be transformed, and the sheer celebration of the form of standardisation that neoliberal capitalism organises. But in what he published about Lagos, his emphasis on economic and market relations is not explicitly articulated around this question. Without an articulation of what the generic could mean there, not only for architecture's relation to the city but for the way he envisions and conceives his models, Koolhaas' conception of Lagos seems indeed merely to reproduce the standard vision that neoliberal economists develop to encourage the status quo.

3.3 Planning and emergence

What seems however more promising is the way Lagos forces Koolhaas to think again more explicitly about planning, and about architecture's responsibility faced with the city, not only theoretically but also practically. Koolhaas' emphasis on self-organisation comprises another, more profound, and more interesting argument about planning. More than simply celebrating the qualities and potential of Lagos in terms of a gigantic self-organising system, Lagos seems to have given to Koolhaas an occasion to think about the relation between planning and change in a more nuanced way. Answering a question that Bregtje van der Haak asks him about the relation between what he saw in the Alaba international electronic market and his thoughts about planning, Koolhaas says:

"In the early nineties, I was very skeptical about the value of planning — about what it could do. Lagos was a confrontation with that scepticism. Initially, I thought: yes, this shows planning makes no sense — it's irrelevant. But now I've begun to see the subtleties in Lagos — that self-organization is inscribed upon an organized model of the city. There's a weird interdependence between the planned and unplanned. . . . If you extrapolate current trends, there are many signs that show the world is going to be a horrible place. There are many reasons to believe laissez faire is not the answer. So planning is becoming more interesting to me. It represents a cycle from skepticism to an awareness that we have to try to assume

the role of planners, perhaps in a new way."[274]

Moving away from the omniscient masterplans imagined by modernist architecture, this long answer given by Koolhaas suggests that, contrary to what the authors that criticised his Lagos work argue when saying that his approach ultimately lead to nothing other than a speculative and provocative celebration of Lagos' disastrous conditions, his approach has something to do with more general questions about what architecture and urbanism can do. More than simply reversing Lagos' apocalyptic situation into some positive dystopian model for the future, Koolhaas sees in it an example of what could be conceived as an alternative theory of modernity in architecture, speculating on the possible combination of the rigid and the free, and arguing that "self-organization is inscribed upon an organized model of the city." [275]

Although Koolhaas has not yet related these observations and relatively loose speculations to his arguments about the generic, Lagos represents an interesting case to see how this could be further articulated. We have already seen that Laruelle's take on the generic supposes that, although the category of the generic does not escape the capitalist structure of the economy to which it is bound, it is however indifferent to the differential economy that structures contemporary capitalism. According to Laruelle, the generic does not "(destroy) the market and capitalist structure of exchange and equivalence".[276] But because it no longer simply reproduces this by introducing a difference, it does nevertheless transform this structure. Laruelle identifies this transformative power with the operation of idempotance that characterises the generic, that is what remains the indifferent to different iterations (Laruelle 2010: 72). And while Koolhaas seeks in the model of Lagos a solution for architecture and urban planning that would at once diverge from modern standardisation and from laissez faire, I would argue that it is in this particular function of the generic that it might be found.

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[274] See Koolhaas and van der Haak. Op cit., 2003.
[275] Koolhaas. Op cit., 2002: 177; Godlewski. Op cit., 2010: 12
[276] Laruelle. Op cit., 2011: 242

Koolhaas' interest in the generic can be said to be connected to the general question of change. While everybody seemed to seek novelty in the increasing diversity that characterised post-industrial urbanisation, Koolhaas looked at places that were relatively foreign to this question. Foreign because they were relatively immune to the fact that this emphasis on differences was only reversing the question while still profoundly connected to the way it was framed by modernism, and because they were in fact displaying alternative forms of modernisation that its dominant European framing was unable to understand. This, I believe, first led him to seek in the generic the qualification of another type of convergence to which global urbanisation was aspiring. No longer the linear mode of identical repetition imposed by standardisation, but a more open and immanent redundancy that for him was not only indifferent to differences and variations, but could also appear to be necessary to their proliferation. His first move was thus concerned with epistemological questions. The question was to qualify this convergence, and to qualify the relation it entertained with change and variation. The generic appeared to be another kind of constant, another kind of invariant, necessary to understand before moving to another type of change.

This different type of change can be conceptualised in terms of emergence. Manuel De Landa argues that emergence started to be conceptualised around the middle of the nineteenth century when philosophy discovered that there are different types of causality in physics and chemistry. This is notably true when considering molecular composition. Water is for example very different from what its components are when taken separately. Emergence generally defines the production of novelties that cannot simply be deduced from initial conditions. The properties of water cannot be deduced from the separated and individual properties of hydrogen and oxygen. This appeared to be very different from the movements of addition, attraction, repulsion, collision and mechanical causes in general that physics explored at the time. Emergence, De Landa argues, thus reveals layers of complexity that go beyond any axiomatic deductive dream. Emergence is not simply deterministic. According to De Landa, mechanisms of emergence are ontologically irreducible. They can nevertheless be

subjected to epistemological reducibility. Even if the type of causation involved in emergence is ultimately unpredictable, it is possible to explain what happened. For De Landa, this requires not only looking at initial conditions in terms of properties, but also in terms of capacities. Following Deleuze, De Landa contends that this unfolds in terms of potential. And that it hence *the structure of the space of possibilities* that one should look at to understand emergence: "(…) what is needed is a way of specifying the structure of the space of possibilities that is defined by an entity's tendencies and capacities".[277] Whereas standardisation stands for mechanical types of linear causation and constitutes conditions in which all possibilities are contained in the initial conditions, the concept of the generic defines a structural or systemic space allowing an open-ended series of possibilities. This argument was employed earlier in the discussion of modularity. Vis-à-vis emergence, it must be further argued that, contrary to the critiques that reproach Koolhaas for simply avoiding mentioning historical and social causes explaining why the city works the way it does, even the exhaustive sum of these causes could not explain the emergence of order Koolhaas observes at an higher level. Far from being simply illusiory, I argue that this more general level of order must be addressed in terms that do not rely on superficial images, but rather engage fully with the specific complexity that this order supposes, at both lower and higher levels.

We have seen that the majority of the critical reception of Koolhaas' Lagos work could be said to focus on the opposition between the illusiory anoramic perspective and the concrete analysis of practices on the ground. According to the discussion of emergence and causality above, it seems that this opposition can be further seen to unfold in the relatively classic opposition between top-down and bottom-up analysis and arguments about causality. Although I have argued that Koolhaas top-down perspective could be said to entertain the illusion that Lagos could be taken as an object observable from the outside, I cannot completely follow the critiques made to Koolhaas for they all seem to oppose to the illusion of top-down accounts,

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[277] Manuel de Landa. *Philosophy and Simulation: The Emergence of Synthetic Reason,* New York: Bloomsbury Academic, 2011: 8.

the reality of bottom-up causality. I said earlier that the question may much more concern the articulation of these dimensions than the maintaining of this now impossible opposition. The understanding of Lagos' complexity requires a departure from both types of reductionism that are attached to this opposition. Neither the reduction to any simplified and holist image understanding it from above, nor the reduction to bottom-up atomism can be said to provide an accurate description of Lagos' complex order. Following cosmologist Georges Ellis, simultaneous multiple causality is always in operation in complex systems. Any attempt to characterise a partial cause as the whole (as characterized by the phrase 'nothing but atoms') is a fundamentally misleading position. One must acknowledge the entire causal web in operation: top-down system explanation and bottom-up explanation are simultaneously applicable.[278] And this is why we need to develop a topological understanding of the morphological transformations that affect those passages.

Finally, while this debate about Lagos mainly opposed to Koolhaas the necessity to address more profound historical and political dynamics, this cannot be done according to the opposition between the ground level of reality, and the distant and abstract gaze looking at the city from above. Repeating an old and exhausted opposition between theoretical abstraction and practical realities, this opposition cannot stand the massive transformation entailed by our entry in the anthropocene. Although this entry was conceptual, it points to a reality that has a completely different ontological geography. While cities can no longer be studied as models that can be looked at extrinsically, abstract models helping to navigate and define this geography are even more essential to any analysis of urban dynamics. Koolhaas' emphasis on market relations and economic actors creatively involving themselves in the development of a huge informal system does not appear as much misleading as it is essentially biased. Avoiding addressing the profound causes and the territory onto which these dynamics spread, Koolhaas' account on Lagos appears indeed very dangerously to

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[278] Georges F.R. Ellis. "On the Nature of Causality in Complex Systems", Lecture at The Copernican Centre, Krakow, 2012: http://www.youtube.com/watch?v=nEhTkF3eG8Q

celebrate conditions that merit no celebration. Going around his radical hypothesis, it seems however possible to argue that, far from representing modernity's past, Lagos could very well not only represent the possible future of many cities, but exemplify many present changes. On this aspect, I can only but follow him, arguing that it is only by acknowledging how the informal development of this gigantic and chaotic city also produces and rely on the formation of more generic structures and invariants that it is possible to further understand both how Lagos actually works, and what can be learned from it.

CONCLUSION

COMPLEXITY AND ANONYMITY

This thesis has drawn the genealogy of what I propose to call the anonymous city. I have argued that, although it was intimately connected to the homogeneous urban models imagined by modernist architects, the anonymous city was nevertheless the product of the broader, more continuous and more ancient movement of modernity. This argument largely borrowed Latour's idea that we must distinguish between what modernity thought it was doing (i.e. the teleological drive of modernisation), and what modernity did in practice. While the former can be defined according to the constant purification of the different domains it separated, the later has on the contrary multiplied the relations between heterogeneous spaces, ideas, and practices.[279] From this standpoint, the anonymous city cannot be seen as the sole product of modernist standardisation. It does not strictly correspond to the models imagined by Hilberseimer and the principles posed by Le Corbusier, but rather indexes the space that lies between them and contemporary existing conditions.

It is by following the same idea that I have argued that, far from being the model of the contemporary global city, Koolhaas' generic city more profoundly addressed the general logic governing contemporary global urbanisation. The generic articulates a new relation between the different and the same. Although it must be read in continuity with modernist standardisation, it underlines another logic. The generic supports variations better than the standard does. Not only because, unlike standardisation, it is

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[279] See notably Latour. Op cit., [1991] 1993; and Idem. Op cit., [2012] 2013.

neither deterministic nor deductive, but also because it remains much less determined, much more vaporous, and much more abstract. While standardisation mainly corresponds to the procedures of normalisation and repetition according to which a predefined model (i.e. the standard) is reproduced identically, the generic corresponds to procedures of abstraction that emerge from differences. Standardisation always supposes the possibility to establish standards, whereas the generic qualifies invariant structures that do not need the definition of any preconceived model.

Discussing the common in architecture and the production of architectural knowledge, Aureli argues that "(…) architectural language must be thought as a generic language that engenders singular forms."[280] Notably drawing on Deleuze, Gilbert Simondon and Paolo Virno, Aureli contends that what is common, the generic, entertains with the singular a relation that can be explained as the relationship between potentiality and actuality.[281] This means that the generic in architecture must be thought to be a generating principle. The generic is for him what defines architecture's potentiality. Although this only loosely resonates with Plato's ideal types, it does explicitly relate to Simondon and Deleuze's ideas of the pre-individual.[282] Always potential, the generic is what always lies beyond any individual architectural objects, always beyond its actualisation in singular forms. Defined in linguistic terms, the generic can be said to be the ultimate structure over which the language does not stop stumbling. Virno explains this in relation to what is common to all linguistic acts: the possibility of actually saying something.[283] Following the same kind of loose definition, I have argued that the generic could be both defined as what allows a passage from one category to another, and as that which allows to make comparisons. It is

[280] Pier Vittoro Aureli. "The Common and the Production of Architecture: Early Hypotheses", in David Chipperfield, Kieran Long & Shumi Bose (eds), Common Ground: A Critical Reader, Venice, 2012.
[281] Idem.
[282] See notably Gilbert Simondon "The Genesis of the Individual," in Jonathan Crary and Sanford Kwinter (eds.). Incorporations, New York: Zone Books, 1992: 297–319; Idem. L'individuation psychique et collective, Paris: Aubier, 1989; Gilles Deleuze. Difference and Repetition (1968), Trans. Paul Patton, New York: Columbia University Press, 1994; Idem. Bergsonism (1966), Trans. Hugh Tomlinson and Barbara Habberjam, New York: Zone Books, 1988.
[283] Paolo Virno. Et ainsi de suite: La régression à l'infini et comment l'intérrompre (2010), Trans. David Revaux, Paris : Édition de l'Éclat, 2013.

what does not change, the invariant that allows change and difference to be registered.

Drawing on Latour and Laruelle, I have argued that this however cannot be defined well in potential terms.[284] The generic is an actual abstraction, one that does not simply allow epistemological moves, but also points at actual ontological processes. Laruelle argues that the generic is mainly an epistemological category. But he does nevertheless argue that it also points to actual truths. The fact that these must be taken as generic truths is for him the difference between the generic and the universal. The universal remains attached to the definition of standard models. More or less tied to average values and recurrent processes, the modernist universal was concretely definable. It could be drawn, measured, explicated, as Le Corbusier argued with his Modulor. Both standard and universal, modernist models were seen to correspond absolutely to ontological principles that had to be applied to a reality that was still imperfect. And standardisation ultimately implied that this absolute universalism should unfold according to proper homogenisation: the collapse of differences onto the same. While I have shown that modernist architecture was nevertheless concerned with modularity in ways that actually allowed the same to support a certain number of differences and variations, I have also shown that these were mainly categorical and typological: differences existed between functions that were ultimately considered to unfold under universal forms and values. Defined as indifferent to difference, the generic appears much more vague but also and as such, able to accommodate a greater number of differences and variations.[285] Far from being a model, the generic is both a dynamic category and an abstract structure that operates as a medium of exchange between the general and the specific. The generic does not articulate the different and the same. It does not play on identity. It does not mediate between the particular and the universal; but rather unfolds according to its indifference to variations. It privileges convergence over difference in a way

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[284] Latour and Hermant. Op cit., 1998; Laruelle. Op cit., 2011; and Idem. Op cit., 2010.
[285] This notably appears in Koolhaas definition of the typical plan. But also when he argues that the generic city represents the apotheosis of the multiple choice concept. See Koolhaas. Op cit., 1995: 567, 1268.

that does not prevent them from flourishing. Rather it organises almost imperceptible relations between the general and the specific.[286]
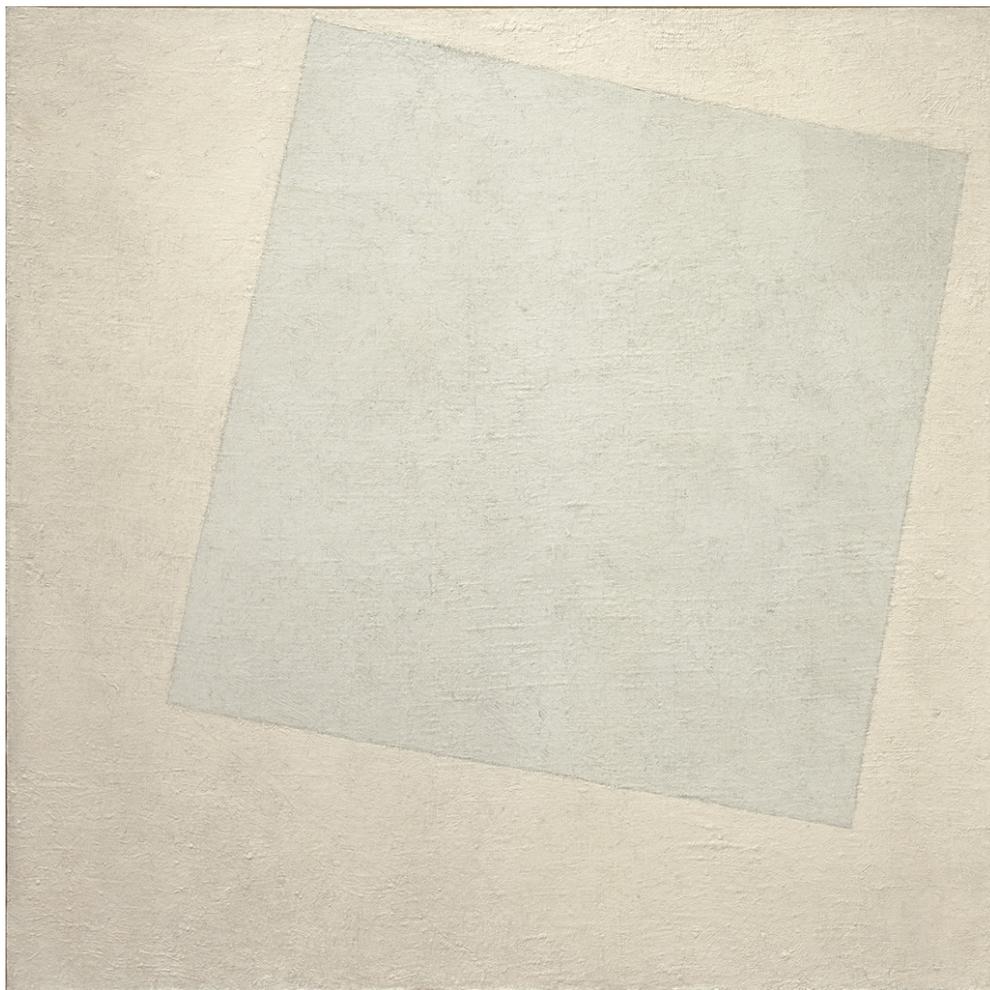
Kazimir Malevich. *White on White* (1918)

I have argued that the generic does not correspond to homogeneous standards, but rather indicates invariants in complex systems. Complex systems escape the limits imposed by standard conception. It has been shown that, while this was true of the logic of difference and repetition at stake in contemporary global urbanisation, it was also true in spatial terms, for the spatial complexity of contemporary urban dynamics could no longer be understood in Euclidean terms. Drawing on topology, I argued that this complexity also produced generic patterns, and that generic forms and

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[286] Laruelle argues that the generic can be specific without losing its multiple suitability. Laruelle. Op cit., 2011: 239.

functions indeed emerged from complexity. This is evident is Koolhaas' theory of Bigness. Contending that an ensemble of technical innovations has led architecture to deal with increasingly larger structures, the problem of bigness concerns the way in which, having reached a certain scale, global urbanisation substituted much more complex and unpredictable conditions for the homogeneous and integrated city that prevailed before. Passed a certain size, problems become too complex for architecture to contain them, Koolhaas argues. Challenging the relation architecture and architectural knowledge entertains with the city, with this urban condition that expands well beyond what we used to call cities, this new situation also more profoundly invalidated standardisation. The complexity of contemporary urban conditions expands well beyond standard conceptions. Connected to the large scale, this complexification at once corresponds to a proliferation of differences, and to an increasing interconnection of always more numerous variables. Koolhaas' central and crucial argument consisted however in showing that this also produced more generic outcomes.

Allowing diagrammes that can trim down complex phenomena to simpler rules and dynamic morphologies, the generic can prove crucial in navigating the heterogeneous and complex landscape of global urbanisation. Following Laruelle, contrary to more standard perspectives and modes of abstraction, the generic allows for subtractions that are not prejudicial to the complex reality they index, but rather form the basis of possible translation and navigation between heterogeneous examples and different modes of knowledge. I have argued that while standardisation involves identical repetition, the generic implies redundancy. The way in which these redundancies emerge from complex dynamics largely remains to be explored. But by delimiting the problem and developing a series of concepts involved in this debate, this thesis has tried to show both its relevance and its importance today. Although this was not the explicit subject of this thesis, I have suggested that beyond its decisive epistemological implications, the concept of the generic could also prove to be crucial for contemporary architectural practice, and that may have more profound and even more interesting political consequences.

The anonymous city indicates the space that has defined the relation between architecture and the existing city throughout modernity. But it also defines the space that has been defined by this relation. Grasping the ways in which architects have sought to understand and to imagine the future city, it also points to the limited ways in which these models have really transformed existing cities. The use of the term anonymous does not only underline that the principles that have been described here were sought to be applicable to any possible city. More profoundly, it stresses the dynamic movement that the relation between architecture and the city followed, towards increasingly anonymous conditions, towards less identity, towards larger, less particular, and more simple forms. The diagrammatic concept of the anonymous city thus seeks to emphasise this movement as a movement of 'genericisation'.

The increasingly important ingression of the concept of the Anthropocene in the arts, sciences and humanities suggests that the anonymous may less correspond today to the bland and standard conditions imagined by modernist architects, and more to the disruptions provoked by the increasing complexity of the environment in which we live. Connected and dependent on an increasing number of complex variables, our individual and collective existence seems also much more contingent. Following Sloterdijk, I argued that, more explicit, this contingency profoundly challenges the way we conceive, produce, imagine and construct the immunological spheres and structures in which we live. The way this transforms processes of subjectivation and modes of living remain largely to be addressed and explored, but this thesis revealed the more ancient trajectory to which these transformations were bound. It revealed that we were experiencing a transformation in the way in which differences and repetition were articulated, no longer according to the dialectic of the universal and particulars but according to transits between the general and the specific. Drawing on Foucault and Canguilhem, I argued that this relation not only concerns the production of architecture knowledge, but also architecture's normative relation to the built environment. The discussion of Foucault's conception of normalisation showed that modernist architecture could be seen to occupy an original and delicate position between normation

and normalisation, that is, between the production of deterministic and standard structures of immunisation and a more selective and adaptive relation to the increasing explicitation of the complex variables to which our individual and collective existence is bound. Caught up between disciplinary mechanisms and the logics of control, modernist models occupy an interesting heuristic position. They reveal all at once the project of modernity and the conditions of its critique. It is from this ambivalent position that I have read the models that this thesis explored. By examining both their principles (i.e. considering that the city they imagined could be effectively built) and their limitations (i.e. considering the fact that no existing city ever corresponded to this), I have tried to show that, although the movement of generic urbanisation should be read in line with the establishment of modern logics of normalisation and with the expansion of the capitalist system, it could also index common properties escaping these dynamics of capture.

I would like to end this thesis by making a few remarks about the way in which I see the potential development of this question. First, the reversal of generic dynamics towards a possible architecture of the common implies in the current situation a strategic reversal. This thesis has mainly focused on the connection it is possible to make between Koolhaas' arguments about the generic city to the logic of standardisation according to which modernist architecture mainly unfolds. Aureli seems indeed to think that this remains the best way to articulate today the discussion of the generic with the question of the common in architecture.[287] I would however like to suggest

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[287] The relation I have established in this thesis between the generic and ModernistModernist conceptions of standardisation, both continuous and distinctive, delimits this question in close relation to what Aureli argues. Although I do not frame the generic in the same virtual and potential terms, I would nevertheless argue that his work indicates similar ways of tackling this question. Aureli notably writes: "A commitment towards the common also means that the production of architecture itself – in terms of forms – must acknowledge the pre-individual origin of any architectural form instead of masquerading them with the pretension of novelty and originality at all costs. In order for these forms to make evident their common origin, they must exhibit their principium individuationis. An example of such architecture would be projects such as Le Corbusier's Maison Dom-ino and Mies' "skin and bones" building technique. In these examples the pre-individual datum of architecture – the industrial techniques that were necessary for their realisation – is not hidden, but fully exposed as the very image of architecture. This means that architectural language must be thought as a generic language that engenders singular forms. Only when architectural language assumes in its aesthetic appearance the reality of the common will it be a true manifestation of a potential architecture." Aureli. Op cit., 2012.

that this might be better accomplished by reversing the question, and by asking what relation the generic entertains with complexity rather than by asking what relation it entertains with the standard.

Mike Kelley. *Memory Ware* (2008)

Focusing on Koolhaas' Lagos work, the third chapter of this thesis suggested that the generic may be best understood today in relation to vernacular complexity rather than in relation to the principles that may structure this complexity in the first place; in relation to what emerges from complexity rather than in terms of what commands this complexity. This corresponds to the distinction I have made between inductive, deductive and generative approaches in architecture. Focusing on Koolhaas' work on Lagos rather than on Lagos itself, I could only show why Lagos could represent an interesting case for further conceptualising the generic in relation to vernacular complexity. Although I agreed with many criticisms Koolhaas' diagrammatic assertions about Lagos have been subjected to, I also tried to

show why this could not be extended to a critique to diagrammes in general. Contending that the generic operates as an abstract structure of exchange between the general and the specific, I would argue that Lagos is a paradigmatic case for further defining how this impacts architecture's relation to the city, and our understanding of urban complexity. Koolhaas' earlier reflexions about the generic city suggested that contemporary urbanisation was overflowing the traditional limits drawn by standardisation in ways that were not only producing increasing diversity but also generating new phenomena of generic convergence. His move to studying Lagos indicates another but nevertheless connected argument according to which the vernacular complexity displayed in dystopian conditions may be also generating another kind of emergent forms of organisation. The result of more spontaneous and contradictory tendencies, the generic patterns generated in these conditions could be seen to oppose even more interesting scenarios to capitalist modes of seamless organisation, at once more heterogeneous and more radical. 'Ventriloquing' Koolhaas, it may be argued that it is this connection between complexity and the generic that led him to resist the notion that Lagos represents an African city en route to becoming modern, and to contend that, on the contrary, it may present a developed and extreme form of advanced globalised modernity.[288]

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[288] Koolhaas and al. Op cit., 2000: 653.

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