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ARCHITECTURAL THEORIES, THEIR PERFORMANCE, QUALITY AND EFFECT: AN APPRAISAL
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Contents

Floating Mansions, Empirical Inquiry and the Appraisal of Architectural Theories

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Abstract
Taking Rafael Moneo's introduction to *Theoretical Anxiety and Design Strategies In the Work of Eight Contemporary Architects* as a starting point, this editorial reflects on the appraisal of architectural theories. To support that reflection, the article uses Moneo's distinction between reflection and critical discourse on the one hand, and on the other the desire to elaborate systematic theories of architecture. Together, the reasons that motivated the editorial process and key takeaways from the different articles published in this issue of *Footprint*, suggest that there is indeed use and value in appraising theories of architecture, especially in relation to each other. By comparing theories and their performance, important distinctions can be made. Among them, the article mentions the differences that exist between critical thinking and criticalism, or between theory and what Frederick Crews refers to as 'theoricism.'

Keywords:
Theoretical anxiety, empirical inquiry, systematic theories of architecture, the appraisal of architectural theories

One Sentence Summary
This editorial reflects on the reasons that motivated this issue of *Footprint* and brings forth new insights regarding the appraisability of architectural theories which resulted from the editorial process.

In the brief preface to *Theoretical Anxiety and Design Strategies In the Work of Eight Contemporary Architects*, Rafael Moneo justifies the title of his book based on an intriguing thought.[1] 'I use the word "anxiety"', he says, 'because the study of architecture has in recent times been tackled in a way that is closer to reflection and critical discourse than to any desire to elaborate a systematic theory'.[2] The book collects a series of lectures Moneo gave at Harvard's Graduate School of Design between 1992 and 1994, and then in Madrid at the Círculo de Bellas Artes in the autumn of 1995, where he described the design strategies used by eight architects of singular renown at the time. Similar catalogues published contemporaneously (such as Juan Antonio Cortés's *Nueva Consistencia*, or Sarah Williams Goldhagen's and Réjean Legault's *Anxious Modernisms*) came to a similar conclusion: despite the discrete and concrete outcomes of their work, since the Second World War and increasingly towards the end of the twentieth century there seems to have been a reluctance among architects to pit theories against each other.[3] That was understood as a sign of pluralism, or 'anything goes', to use Feyerabend's poorly understood axiom.

Moreover, architects seem reluctant to elaborate comprehensive explanations of what they do, how it should be

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done, and why or where it should be developed further. Paradoxically, Moneo's book is filled with evidence to the contrary, in the form of images and drawings of built and unbuilt architectural projects that simply cannot be conceived, much less realised without a substantial amount of objective architectural knowledge, extraordinary projective, technical and constructive coordination, and the remarkable polytechnic discipline of a considerable number of people; without a cogent explanation, evaluation and orientation of collaboration and its expected outcomes; without, in other words, a systematic theory of architecture. This issue of *Footprint* originates from this fascinating paradox.

Somehow, our own study of systematic theories might have spared us from the anxiety Moneo attributes to reflection and critical discourse. Unbeknownst to each other, and probably for very different reasons, nearly ten years ago each of us decided to study Imre Lakatos's systematic theory of science adapted to architectural thinking.[4] Throughout the early 1970s Lakatos – originally a philosopher of mathematics – developed Karl Popper's falsificationist theory of science through a detailed explanation of the different types of hypotheses used in scientific discussion, and the roles they play in the face of trial, error and criticism as basis for the growth of knowledge in that field. Lakatos posited that science and its communities could be understood by looking at the 'research programmes' they adhered to. According to Lakatos, a programme was held together by a 'hard core' of axioms that was surrounded by 'auxiliary hypotheses' and informed by both 'positive' and 'negative heuristics' that provided practical direction. We need not go deeper into this. Suffice it to say that Lakatos developed a highly elaborate (though also quite debatable) explanatory system, and that he hoped that this system would also allow him to distinguish 'progressive' from 'degenerating' research programmes. Though this last aspect of his theory proved particularly shaky, we'd still appraise it as an important attempt to address the same questions this issue of *Footprint* is dedicated to.

It was through our shared interest in the adaption of Lakatosian research programmes that the topic for this issue emerged. More specifically, the issue originates in our respective studies of fellow architects Stanford Anderson and Royston Landau, who used Lakatos's methodology to systematically explain architecture and determine some of the principles on which its practice was based throughout the twentieth century.[5] While Anderson mostly investigated the past – searching for 'research programmes' in the work of Le Corbusier or Eliel Saarinen – Landau used Lakatos to interpret the architectural discourse of his day, mainly in England, where he lived.[6] Our respective studies of both trajectories allowed us to identify where Anderson and Landau succeeded and failed, and made us familiar with the different processes required for systematic theorisation. Key among those processes was an analytical approach to the axiological apparatus in every architectural theory, which determines evaluation and judgment. In fact, Lakatos's contribution can be summarised as an effort to develop that particular apparatus in Popper's falsificationist theory of science, by turning his 'naïve' description of the way scientific conjectures are appraised, criticised, and eventually refuted into a 'sophisticated' explanation that recognises a series of layers and nuances that are instrumental to valuation and judgment, and which Popper did not account for.

Common to Popper's epistemology, Lakatos's methodology, and Anderson's and Landau's architectural historiography is an unambiguous rejection of axiological determinism, understood as the presumption that we can (a) only determine value in relation to some sort of preestablished authority or (b) not determine value at all. While examples of the first of these forms of determinism are overabundant in architectural theory and historiography, the idea that relinquishing judgment is actually a form of determinism shone new light on our previous research. We started wondering what advantage there could be in claiming that architecture in general, and architectural theory in particular, are non-apodictic, meaning that they are not clearly provable or logically certain and therefore do not lend themselves to appraisal in terms of being better or worse.[7]

Confirming this non-apodictic interpretation of architecture, we realised that over the past fifteen years, this and other journals that are expressly dedicated to the study of architectural theory have been notably anxious, if we stick to Moneo's use of the term. It only makes sense therefore that amid the many topics and approaches touched upon in the thirty-six issues of *Footprint* that precede this one, no attempt was ever made to examine different architectural theories in relation to each other, especially in terms of their performance. This may have been due to a culture that shied away from comparison, as it rated pluralism very highly, and to an acceptance that others hold positions one wouldn't oneself subscribe to (as long as one's own personal leanings were left unscathed). Tacitly, the different theories architects and scholars use and study have been taken as equal, notwithstanding the fact that there can definitely be some benefit in trying to appraise different architectural theories as instruments of thought and action, at least in terms of their quality and effect.

Encouraged by the possibility of filling an evident knowledge-gap we set out to edit this issue by extending an open call for research and review articles focused on the appraisability of architectural theories. Among other

things, we asked: Is it actually possible, useful, or even necessary to appraise theories of architecture? If so, what would be the purpose of their appraisal, who should do it, and when should it take place? If one considers, for example, that any theory of architecture is directed at the practice of architecture, should the former be evaluated through the latter? If so, how? And what would this mean, on the other hand, for theories that are deliberately formulated to dwell above practice? How can they be judged – or don't they have to be? Are at least some theories of architecture like scientific hypotheses, which can be tested, corroborated or refuted? Or should they rather be taken as means of pure, unfettered, and therefore unmeasurable understanding? Should we even expect theories of architecture to be appraisable?

Frankly, our earlier interest in Anderson and Landau entailed a progressive sentiment. Most, if not all of our questions are founded on the belief that we can indeed attain at least some objective knowledge of reality, that discovery and the growth of knowledge are possible, discernible, and desirable. From that perspective, it only seems logical that architects' and scholars' ventures into theory should somehow help them to better understand their work as researchers, educators or practitioners. Hoping for the improvement of that work, we wondered what benefit there could be in striving for explanations that are better than the ones we currently have. And how can we tell that they are better? How do we appraise theories? How can we tell good theories from bad ones?

The four research articles and two reviews that we finally selected for publication chose to answer these and other derivable questions piecemeal and dispersedly – like scattered yet interrelated probes in geological prospecting. In that sense each article provides us with valuable, albeit partial evidence to the fact that theories of architecture can indeed be appraised, and that said appraisal is facilitated by abstraction. Abstracting is exactly what Lakatos did when he demarcated scientific research programmes, broke those programmes down into bundles of hypotheses, discriminated between hard-core and auxiliary hypotheses, and broke auxiliary hypotheses down into their constituent heuristics (which he described as 'a series of problem-solving techniques').[8] This is also what we have done by breaking down theories into onto-epistemological, axiological and teleological apparatuses, which can be examined and evaluated separately in terms of their constitution, nature and performance.

According to our contributors, a first step towards the appraisal of architectural theories can therefore consist in analysing and then classifying those theories accordant with their epistemological and pragmatic orientation. Among the different theories that are currently used and debated in schools of architecture, some can be qualified as esoteric and others as existential, based on the respective orientation. Like every other theory, esoteric and existential theories of architecture inevitably incorporate substantial portions of tacit knowledge, as defined by Michael Polanyi, some of which might correspond to what Lakatos termed 'hard-core hypotheses' (or negative heuristics, in the sense that they are deliberately shielded from criticism), and some of which might be practical know-how that simply hasn't found adequate means for systematic conceptualisation. Consequently, the pragmatic assumption that the quality of a theory can be measured in relation to its practical effects should also account, at least to some degree, for unforeseeable effects, generative potential, and so on.

Together with these genuine contributions to our inquiry into the appraisability of architectural theories, we were also reminded that acts of appraisal are often accompanied by feelings of apprehension, and that it is possible to alleviate those feelings by diffusing, relativising, and thus relaxing judgment. Beyond the obvious, we were quite surprised by the recurrence of Peter Eisenman, who appears in half of the articles published here. As a matter of fact, it was in Eisenman's work where Moneo recognised the contemporary architect's disinterest in a systematic theorisation of architecture. 'Theoretical anxiety is a more accurate term than theory … when we refer to the writings of Peter Eisenman', he noted. 'These are texts that reveal an intellectual capacity to transfer to architecture concepts acquired in readings of contemporary philosophers.'[9]

It is safe to say that among the different philosophies and theories of architecture that were debated in Eisenman's Institute for Architecture and Urban Studies (IAUS), some actually did pursue a systematic comprehension of architecture. A case in point is Aldo Rossi, who argues that

> the points specified by Ferdinand de Saussure for the development of linguistics can be translated into a program for the development of an urban science: description and history of existing cities; research on the forces that are at play in a permanent and universal way in all urban artifacts; and naturally, delimitation and definition of the field of study.[10]

Likewise, Moneo's essay 'On Typology' and Eisenman's dissertation on modernist architecture's formal basis aren't simply reflections or critical discourse, but rather concrete contributions to the development of a systematic theory of architecture.[11] 'It is the desire here', Eisenman's thesis reads, 'to consider buildings as a structure of logical discourse, and to focus attention on consistency of argument,

on the manner in which spatial and volumetric propositions may interact, contradict, and qualify each other.'[12]

Instead, other factions within the IAUS opted for different variants of criticalism, via the self-same transfer of contemporary philosophical ideas to architecture attributed to Eisenman by Moneo. The nature of the ideas transferred was such that new forms of determinism were incorporated into architectural thinking, which conform to the two types we've described above. As Alan Sokal and Jean Bricmont have demonstrated, 'famous intellectuals such as Lacan, Kristeva, Irigaray, Baudrillard, and Deleuze' founded their work on a distinct form of 'scientism;' that particular version of determinism that utilises science as an authority to grant value beyond science.[13] Concretely, Sokal (a mathematician) and Bricmont (a theoretical physicist) offer evidence to the fact that these and other criticalist intellectuals have 'abuse[d] scientific concepts and terminology;[by] either using scientific ideas totally out of context, without giving the slightest justification, or throwing around scientific jargon in front of their non-scientist readers without any regard for its relevance or even its meaning.'[14] The literary critic Frederick Crews, on the other hand, links the same group of popular intellectuals to the other form of determinism we've mentioned: relinquished judgment, or at least the pretension thereof. Crews uses the term 'theoricism' to describe these authors' 'frank recourse to unsubstantiated theory, not just as a tool of investigation but as antiempirical knowledge in its own right.'[15] As Popper, and after him Lakatos, Anderson and Landau made clear in one way or another, determinism is a poor method for knowledge and action because it provenly inhibits exchange while allowing our thought processes to carry on gratuitously, leading – in Crews's terms – to 'creeds that use a dry mechanistic idiom and an empirical façade to legitimise "deep," morally engaged revelations, which can always be placed on some new footing, if their original claims turn out to be baseless.'[16]

Oblivious to such creeds, architecture carries on. Buildings are conceived, developed and built, on the basis of clear, concise, yet ever-changing explanations of what architectural work consists of, supported by the constant redefinition of productive principles and values required for decision-making, and encouraged by the formulation of justifications that are convincing enough to lead different people to take risks and act. The appraisal of our explanations, principles and justifications is not only possible, it is inevitable whenever these three fundamental objectives of every theory come in contact with reality and its inexorable constraints, or whenever they come in contact with other explanations, principles and justifications that challenge them. Our brief excursion into architectural theories, especially in relation to their appraisability in terms of performance, quality, and effect, has certainly shone a much-needed light on the radical difference that exists between critical thinking and criticalism, or – returning to Moneo – between mere reflection and critical discourse on the one hand, and the desire to elaborate systematic theories of what we do, on the other. Supporting that desire, and justifying the duties it entails, is a profound appreciation for the reality we share with others through exchange. Referring to an entirely different sentiment, Crews alludes to chemist C. P. Snow's demarcation of 'two mutually uncomprehending and antagonistic cultures, one scientific and the other humanistic.'[17]

> In the Grand Academy of Lagado, where "projectors" are busy trying to soften marble for pillows and extract sunbeams from cucumbers, Lemuel Gulliver comes across "a most ingenious architect who had contrived a new method for building houses, by beginning at the roof and working downwards to the foundation." Presumably that project is as insensate as the others. But if Gulliver were to visit our grand academy of theory, he could witness a like feat accomplished daily, with conceptual gables and turrets suspended on hot air and rakishly cantilevered across the void. And if C.P. Snow is perchance observing from a nearby cloud, it may occur to him that his two cultures stack up somewhat differently by now: not scientists versus nonscientists, but the builders of those floating mansions on one side and, on the other, empirical inquirers of any kind.[18]

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Notes

1. Rafael Moneo, *Theoretical Anxiety and Design Strategies In the Work of Eight Contemporary Architects* (Barcelona: Actar, 2004).
2. Ibid., 2.
3. Juan Antonio Cortés, *Nueva consistencia: estrategias formales y materiales en la arquitectura de la última década del siglo XX* (Valladolid: Ediciones Universidad de Valladolid, 2002); Sarah Williams Goldhagen and Réjean Legault, eds., *Anxious Modernisms: Experimentation in Postwar Architectural Culture* (Cambridge, MA: MIT Press, 2000).
4. Jasper Cepl, 'Royston Landau and the Research Programmes of Architecture', in *Architecture Thinking Across Boundaries: Knowledge Transfers since the 1960s,* ed. Rajesh Heynickx, Ricardo Costa Agarez and Elke Couchez (London: Bloomsbury, 2021), 83–102; Jorge Mejía Hernández, *Transactions, or Architecture as a System of Research Programs* (PhD dissertation, TU Delft, 2018).
5. Royston Landau, 'Methodology of Research Programs', in *Changing Design,* ed. Barrie Evans et al. (New York: John Wiley and Sons, 1982), 303–9; Stanford Anderson, 'Architectural Design as a System of Research Programs', *Design Studies* 5, no. 3 (1984): 146–50.
6. Most of Anderson's and Landau's articles about Lakatosian research programmes were published in the early 1980s.
7. We owe this explanation to our esteemed colleague Andrej Radman, as part of the discussions regarding the framing of this issue, which were carried out within the journal's editorial board.
8. Imre Lakatos and Elie Zahar, 'Why did Copernicus's Research Programme Supersede Ptolemy's?', in Lakatos*, The Methodology of Scientific Research Programmes*, Philosophical Papers, Vol. 1 (Cambridge: Cambridge University Press, 1978), 178.
9. Moneo, *Theoretical Anxiety,* 2.
10. Aldo Rossi, *The Architecture of the City*, intr. Peter Eisenman, trans. Diane Ghirardo and Joan Ockman (Cambridge, MA: MIT Press, 1984), 23.
11. Rafael Moneo, 'On Typology', *Oppositions* 13 (Summer 1978): 22–45; Peter Eisenman, *The Formal Basis of Modern Architecture* (Zurich: Lars Müller Publishers, 2006).
12. Eisenman, *The Formal Basis of Modern Architecture*, 17.
13. Alan Sokal and Jean Bricmont, *Fashionable Nonsense: Postmodern Intellectuals' Abuse of Science* (New York: Picador, 1997).
14. Ibid.
15. Frederick Crews, *Skeptical Engagements* (Oxford: Oxford University Press, 1986), 164.
16. Ibid., 167.
17. Ibid., 159.
18. Ibid., 174.

Biography

Jorge Mejía-Hernández graduated as an architect in Colombia, and developed his PhD at TU Delft, where he currently researches and teaches. His dissertation *Transactions; or Architecture as a System of Research Programs* (2018) advances a methodological framework to examine the individual and social rationales that determine the growth and development of architectural knowledge. He was a member of Footprint's Editorial Board between 2015 and 2024.

Jasper Cepl, born 1973, Architect. Chair for the Theory and History of Modern Architecture at Bauhaus-Universität Weimar, Germany. Studied architecture at RWTH Aachen and TU Berlin, where he graduated in 2000. He received his doctorate in 2006 for a study on Oswald Mathias Ungers, published as Oswald Mathias Ungers: Eine *intellektuelle* Biographie in 2007. Jasper Cepl taught at TU Berlin (2003–2013) and, as a professor for architecture theory, at Hochschule Anhalt, Dessau (2014–2019) before being appointed as a professor at Bauhaus-Universität Weimar in 2019. His research focuses on the history of ideas in modern architecture.

A Compass of Architectural Theories in the Tower of the Winds

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Abstract
This article presents a categorisation of both architectural theories and doctoral dissertations. It displays a theoretical model distinguishing two axes of epistemological and pragmatic orientations. It was originally designed to orient doctoral students facing inevitable introspection and doubts regarding the nature of their dissertation in the complex field of architecture. Such a categorisation should prove productive to an understanding of the future of theory, since doctoral students are called to become the theorists of tomorrow. Inevitably, it is an inquiry into the hybrid nature of knowledge production in architectural research. The main orientation of any theory is positioned in reference to two axes defining four quadrants and ultimately eight orientations. The first axis distinguishes typical poles of knowledge production in architecture. The second axis recognises architecture as both a discipline and a profession and it categorises types of projects or ways of making in architecture. The four poles allow for an empirical mapping of theories related to types of knowledge production here qualified as prospective versus retrospective and proactive versus retroactive. While the axis of epistemological objectives locates knowledge between historical narratives and scientific demonstrations, the axis of reflective and prescriptive projects qualifies oscillations between thinking and doing, which are sometimes proactive and sometimes retroactive in their relationship to knowledge.

Keywords
Architectural theory, doctoral dissertations, epistemology, theoretical models, categorisation, analogical thinking

One Sentence Summary
The poles of this compass of theories and theses allow for an epistemological mapping through four types of knowledge production here qualified as prospective versus retrospective and proactive versus retroactive.

Doctoral research considered as a form of theorisation

When professionals trained in the disciplines of the built environment, whether architecture, interior design, landscape architecture or urban design, consider embarking on doctoral studies, they are often faced with an axiological confusion between professional and scientific values. These aspiring researchers pit the virtues of action against those of knowledge if they do not confuse the two horizons. This tension, which is understandable in the early stages of the doctoral process, proves to be counter-productive, delaying the plunge into a scientific approach conducive to the advancement of knowledge in architecture. Such interrogations are persistent. How can a dissertation be considered a project? And, if so, what type of project is referred to in doctoral research, hence in architectural theory?

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The question could be all too easily answered by distinguishing between a PhD in architecture and a Doctorate in design. In the North American context – take the prestigious Harvard University – the distinction is explicitly enshrined in two programme titles. 'Doctor of Philosophy' or 'PhD' degrees are available in fields as diverse as history and theory, architectural technology, landscape theory and the evolution of cities and regions. The natural progression is toward academic or research careers. Conversely, a 'Doctor of Design' or 'DDes' degree leads to applied research and employment in large private or government agencies, as well as industrial groups. In this second case, we can speak of professional training at the highest level. In this example, a PhD in architecture is not a PhD in design and the forms of knowledge construction should not be confused.

However, the polysemy of the term 'design' often allows those trained in any of the built environment disciplines, particularly in the North American context, to imagine that their expertise in project design or 'design thinking' can not only be directly applied within their scientific questioning, but that obtaining a PhD will have the value of highly qualified expertise in project design. Over and above the existing designations, which clearly distinguish the scientific side from the professional side, we first need to question the respective roles of research thinking and design thinking in a scientific thesis. Second, we need to clarify the complex and often tangled nature of project definitions, particularly in European or Latin contexts, which refer to the etymology of 'projicio' as a specific 'mode of anticipation'.[1] These distinctions are salutary, as they have both epistemological and methodological consequences on the very definition of architectural theories. By avoiding confusion between scientific research and professional action, it is possible to encourage candidates to postpone their ambition to act on the built environment, in favour of a commitment to the renewal of knowledge. This suspension does not preclude a subsequent return to professional practice, based on the new knowledge generated by the dissertation.

Yet, up until the mid-1990s, the scarcity of architectural doctoral programmes compelled architects aspiring to advanced studies to hide within the Trojan horse of a seemingly opportune and welcoming discipline: sociology, philosophy, anthropology and art history, not to mention engineering and computer sciences. As it stands, however, the very idea of a doctoral approach to architecture is flanked by professional issues and disciplinary ambitions and finds itself caught somewhere in between. This is particularly visible in the wide range of theses that aim to study the practical aspects of an exemplary building, while rationalising abstract concepts most often borrowed from disciplines other than architecture. In conclusion, I will reflect on the typical case of Peter Eisenman's thesis, presented in Cambridge, MA in 1963, borrowing from linguistics and thinking 'out of history', but in order to do so I need to present the constituent dimensions of this compass of theories.

The slow rise of doctoral studies has lent increased legitimacy to epistemological questions concerning architectural research and theory. On a personal note, the two questions below were sent to me by the late Jean-Louis Cohen, as an invitation to a symposium on the nature of architectural research held at the College de France in 2015: 1) What is the significance of doctoral research in architecture? 2) Is research in architecture cumulative, or not? An easy answer to the second question, the most difficult in fact, would be to qualify architectural research as neither purely cumulative, like the Baconian ideal of science, nor non-cumulative and forcefully specific, like artistic production, but rather as accumulative. Indeed, research in architecture is both cumulative, in that it involves progression, and accumulative and recursive, as with the arts. Architecture is a historical discipline that can revisit its own theories, sometimes far back in the past: a retroactive gaze, which most modern sciences based on 'progress' usually do not consider a valid mode of knowledge production. Doctoral research, as theory in the making, leans toward archive and history, without disregarding the power of anticipation and reflexivity at the core of the project, its main way of thinking. Jean-Pierre Boutinet categorises the project not in the framework of design thinking, but as a 'blur-type operational anticipation'. Although a psychologist and an expert in education sciences, he recognises the architectural project as an emblematic example of 'conduites à projet'.[2]

Recognising both proactive and retroactive theories is not a refutation of modern science, but it acknowledges the critique of modern rationalism made by Giambattista Vico (1668–1744). Often considered the father of contemporary constructivist epistemology, his *verum factum* principle considers knowledge as a construction. Hence, knowledge in architecture is not only produced through empirical methods; it can also be reconstructed through historical narratives. And like most scientific revolutions, transformation in architecture theory is often destructive to previous paradigms. Architects do not hesitate to redefine concepts in and out of history, often having to wait several generations to rediscover the virtues of an idea or principle. In this sense, architectural research is both scientific, in the modern sense of the term, and prescientific or 'historical'. The fact that architecture books are among the oldest in the rare book collections of our university libraries is somehow a testimony of the historical nature of architectural

knowledge. Therefore, just as Plato and Parmenides are not epistemologically obsolete, it would be unacceptable to state that the works of Vitruvius, Palladio, Viollet-le-Duc or even Le Corbusier have been surpassed by contemporary postmodern and hypermodern theories.

While the rise of doctoral education is, itself, becoming a disciplinary phenomenon, it remains little scrutinised. The vectors of this particular way of mapping dissertations in architecture were originally presented in French, in a 2014 special issue of Cahiers de la recherche architecturale et urbaine on 'doctoral trajectories'.[3] It was carefully presented as a hypothesis, since the objective was to map doctoral productions. It is now presented with a little more confidence through a statement defining the doctoral dissertation as a prominent form of theory. As I have extensively studied the power of analogical thinking to connect projects and theories in the built environment, the second part of my hypothesis says, in essence, that mapping dissertations should be considered analogous – if not homologous – to mapping theories in architecture.[4]

The proposed epistemological model therefore insists on the parallelism between dissertation writing and theoretical writing. Today, in fact, fewer theories are published that were not originally advanced in the framework of a doctoral dissertation. Coincidentally, and since the mid-1990s, there has been a surge in anthologies of theoretical texts – particularly in American universities – pointing to a need for theorisation as much as for a strategic approach within an expanding market for reading lists in architecture. I have not measured how much these new reinterpretations of theory owe to the competition provided by doctoral formation between prominent universities. The process exists and thrives ubiquitously around the world, and today, its large expanse has begun to raise awareness of what could be called the ocean of theories in architecture.[5]

My attempt to categorise the astonishing variety of dissertations in architecture is based on the need for a taxonomy of theories, as these work toward the clarification of the various forms of architectural knowledge production at stake. Thus, the hypothesis for the benefits of such a model is as follows: a categorisation of doctoral research should prove productive to the future of theory; the doctoral students of today are being called to become the theorists of tomorrow.

Theory is not an ornament

Without further proof, the example of the resurgence and avatars of theories on the notion of ornament in architecture could be indicative of this difficulty. If the notion of ornament remains a relatively stable category in art history, the same cannot be said of its role and understanding in architecture. As it appears today, the question of ornament is a good example of recursive – or retroactive – theory.[6] A doctoral conference titled 'The Return of the Ornament', regarding contemporary practice, was held in May 2013 at the Université de Montréal and helped me test an outline of a model for categorising dissertations. Entitled 'Ornaments, Algorithms and Analogies between Cognitive and Technological Operations in Architecture', the meeting brought together PhD students from universities like Harvard, Princeton, Bartlett, Rio de Janeiro, Montreal and Lausanne, as well as French national architecture schools from Nantes, Lyon, Lille and Versailles. Working with a prescribed theme, the conference confirmed, through the comparison of twelve doctoral approaches, that the same questions could lead to a surprising heterogeneity of epistemological aims and research approaches. Again, in September 2013, this mapping was put to the test with sixty selected texts during a second conference called 'Rencontres doctorales en Architecture' at the École Nationale Supérieure d'Architecture de Paris-Belleville. This time, a comprehensive transcontinental variety of dissertations – correlated with the diversity of French laboratories – reaffirmed an interest among young researchers in a mapping of doctoral objectives, while making it increasingly clear that such an ambition to categorise theories in architecture must prepare to confront major epistemological paradoxes. Thus, a historical dissertation on architectural education in twentieth-century France cannot be considered in the same category as a dissertation with the subtitle 'For an eco-friendly and affordable habitat in Saône-et-Loire', nor does it relate to research issues regarding both building cultures and design titled 'Toward an edifying theory of the project'. In fact, a simple overview of the lists of dissertations in most architecture schools welcoming doctoral programmes is simply disturbing, epistemologically speaking, compared to the same exercise in most human and social sciences. This special issue of *Footprint* summarises this challenge clearly: How can one appraise the quality, effect and performance of architectural theories?

Historical narratives versus scientific demonstrations

As I describe the basic principles of the model, referred to here as a compass of theories and dissertations, the question arises: What should be placed at the centre of such a turbulent universe? If we accept that every architectural theory, like every dissertation, participates in an ideal, then placing the Island of Utopia (and Thomas More's book) at the centre of the compass would undoubtedly preserve an openness to categorisation. It is therefore not a question of choosing a 'central' theory around which all the others

would revolve. Rather, it is a question of opening up the reflection to the identification of a dynamic that would be dominant in each theoretical text. In the absence of a paradigmatic or normative definition of architectural theory, this model should be left with a vacant centre. [Fig. 1–3]

The first axis, previously referred to as epistemological, contrasts poles of knowledge production. One pole points to theories dominated by historical objectives and methods, while the other points to theories dominated by transhistorical scientific aims, be they associated with the human and social sciences or engineering. On the one hand, some architectural theories identify the role of history in the production of architectural knowledge, while some give primacy to scientific progress, thus relegating history to the background. This axis therefore segregates ways of producing knowledge in architecture between retrospective and prospective gazes or aims.

It goes without saying that history is not a homogeneous discipline, and that methodological currents and schools should be distinguished. The fact remains, however, that certain works in the history of architecture are often at odds with the recognised categories of art history, and are, strictly speaking, kept at a distance from these historical circles, without being automatically compatible with the scientific objectives of the humanities or engineering sciences. To take two examples that are deliberately incompatible in terms of the historical theses they support, how can we locate the works of Manfredo Tafuri and Alberto Perez-Gomez? The main works of history and theory by Tafuri (1935–1994) cannot be classified in the strict register of art history, without considering that they are based on political positions and analyses closer to cultural anthropology and Marxism than to event history or historiography. In another theoretical and ideological register, the positions on the nature of theory, strongly defended by Alberto Perez-Gomez (1949–) at McGill University from the end of the 1980s and up to 2020, correspond to a peculiar disciplinary autonomy. Among their merits, said positions have enforced this median territory, also referring to 'history and theory', but far from Manfredo Tafuri's political and theoretical positions on the relationship between history and theory.[7] Perez-Gomez systematically directed any contemporary questioning in architectural theory to the hermeneutic search for its origin in an authoritative 'ancient text of the discipline' and, at the same time, to the phenomenological acknowledgment of embodied knowledge.

The first epistemological axis therefore separates the disciplines of history (art history, architectural history, the history of science) and their typical historical questioning. The history of science comes with a narrative way of producing knowledge, which differs from the demonstrative way in use in the humanities and applied sciences. This last group may look heterogeneous, but it is scientifically coherent in that these modern sciences are largely dominated by empiricism and induction. For example, the history of social housing through the ages would be a different theoretical endeavour than the sociology of social housing or even the comparative analysis of various models of social housing in post-war Germany. In these three types of theory, a production of knowledge is at stake, but this knowledge is not homologous and not simply architectural.

Consider now Joseph Rykwert's imposing undertaking on the theories of the early moderns (*The First Moderns*, 1980), which can be said to stand on the borderline between architecture history and art history. In deliberate contrast, this historian's work does not approach the objects of architecture in the same way as Jean-Nicolas-Louis Durand's first architecture course at the brand-new École Polytechnique in 1802. Durand's rationalist and fundamentally forward-looking stance, already embodied in the transhistorical comparative nature of his *Recueil et parallèle des édifices de tout genre anciens et modernes* (collection and comparison of all kinds of ancient and modern buildings), which he had published two years earlier, prompts me to place Rykwert's and Durand's books at two opposite poles of the compass. Adopting this first distinction, which accords a specific role to history in architecture, we can now see more clearly that Quatremère de Quincy's *Dictionnaire historique d'architecture*, which appeared from 1832 onwards, would place itself on the side of historical aims, somewhere between a purely historical approach and the 'Island of Utopia' at the centre of our compass). As a 'Historical Dictionary of Architecture', Quatremère de Quincy's endeavour remains more retrospective than prospective. [Fig. 2]

On the other hand, Claude Perrault's 1673 translation of Vitrivius's *De Architectura* was a departure from the medieval transcriptions of Cesare Cesariano (1521). It was meant less as a commentary in the medieval tradition than as a scientific translation by a seventeenth-century architect, who was also a *homme de science* and a physician. It was a deliberate attempt to define a 'modern' architectural theory. In this sense, Perrault's translation becomes a theory that is no longer essentially historical, but a demonstration, in the modern sense of a scientific demonstration. For this last reason, it should be placed on the side of scientific rationalisation and prospective theory, like that of Durand, as well as, to keep our previous clarification, on the side of the most typical contemporary sociological approach to social housing. Perrault's translation is a rationalisation of Vitruvius's principles.

Therefore, this first axis is not so much about extracting history from the realm of scientific knowledge, as it is

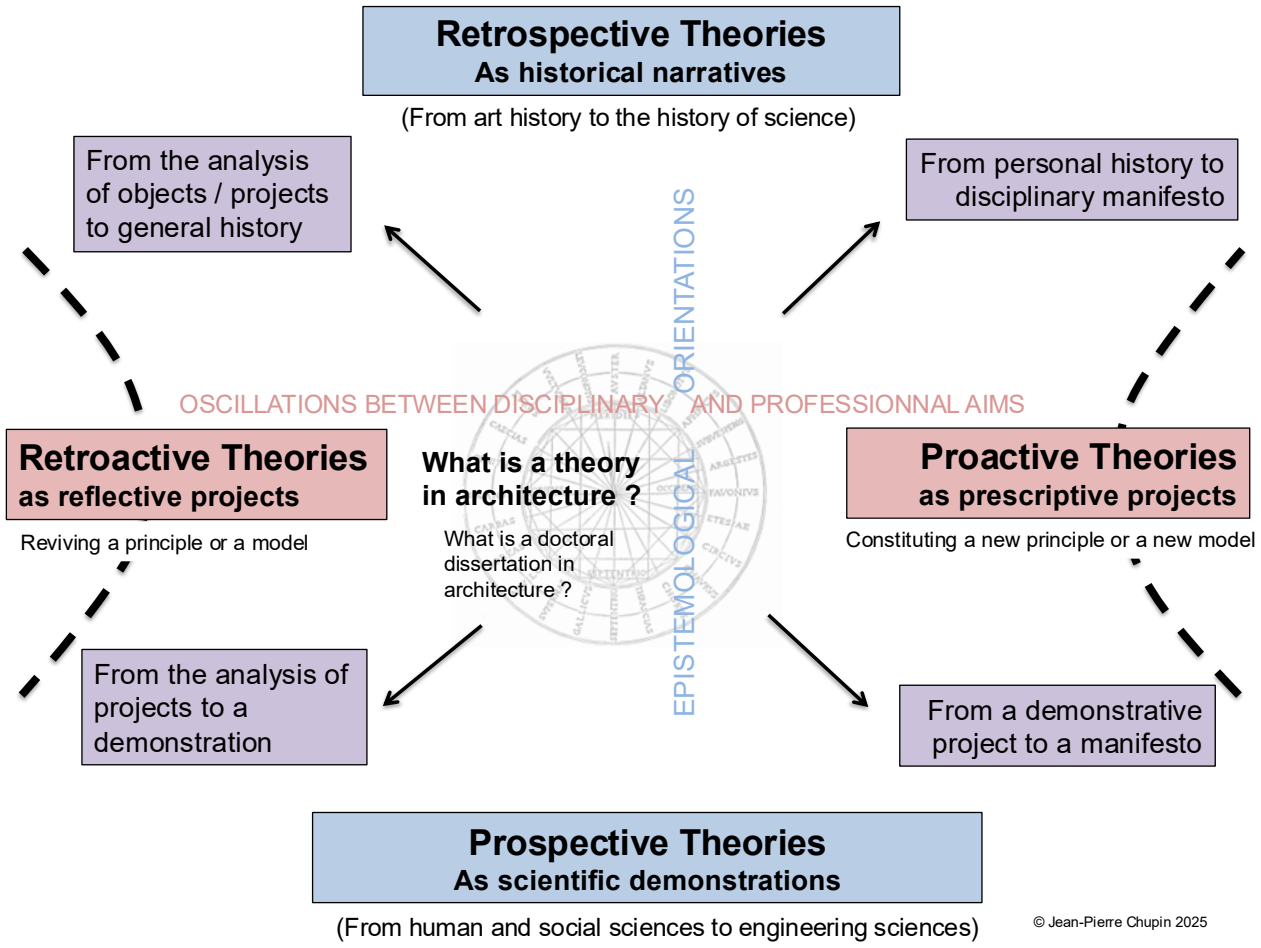

Fig. 1: Compass of architectural theories with eight orientations. Diagram: author.

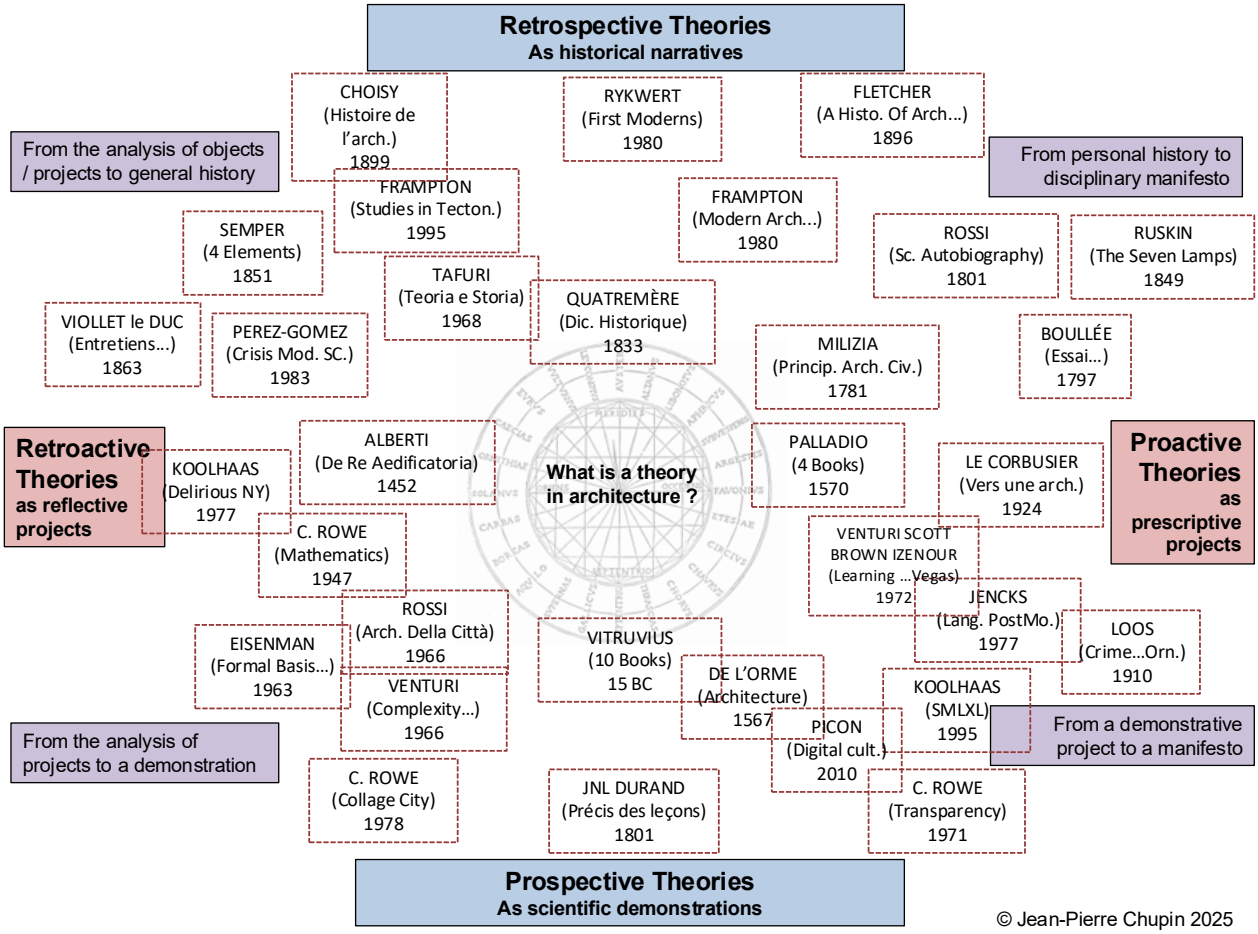

Fig. 2: Theoretical mapping of theories from Vitruvius (15 BCE) onto Kenneth Frampton's Studies in Tectonic Culture (1995) and Antoine Picon's Digital Culture in Architecture (2010). Diagram: author.

Fig. 3: Theoretical mapping of contemporary architectural theories with an alternative rotation of the two main axes: retrospective versus prospective theories, retroactive versus proactive theories. Image: author.

about distinguishing epistemological aims and ways of producing knowledge. But paradoxically, and contrary to typical historical or sociological disciplines, which tend to choose one methodological side, both aims can be found in architecture theories and doctoral dissertations.

Now, things become a little more complex when we consider two other exemplary works within the compendium of architecture theory: those of Leon Battista Alberti (1404–1472) and Andrea Palladio (1508–1580). Palladio's *I quattro libri dell'architettura* was published in 1572, over a century after Alberti's *De re aedificatoria* (1452). Alberti's work is a meta-treatise written in the middle of the fifteenth century that, according to many historians, inaugurates a recognition of architecture as an intellectual or humanistic discipline and not only as a trade or craft. Despite their prominent role in the western history of architecture theory, we should not place these two major treatises in a central position, solely based on their role in the history of architecture theory. Their objectives are different. Alberti's *De re aedificatoria* is overtly speculative and philosophical, while Palladio's *I quattro libri dell'architettura* asserts its professional pragmatism as a quasi-rulebook. However, these two theories cannot be placed simply along the axis of historical narratives versus scientific demonstrations. We need another axis and its set of poles, as these theories embody a typical architectural way of thinking called *designo* or *projicio* or project. If anything, they should be placed on a second axis and on opposite sides, close to the vacant centre. Alberti's text is a meditation on architecture as an intellectual discipline, while Palladio's is a detailed and carefully illustrated exposé on rules for building, and as such on the profession of the architect. To simplify the comparison of the main objectives of these two books, we can say that Alberti's focuses on the nature of architectural theory, while Palladio's focuses on the nature of practice.

Reflective versus prescriptive projects

Before presenting the second axis, let me summarise some aspects of the first. The gradients across the first axis have in common that they are primarily concerned with knowledge. We have distinguished between retrospective and prospective speculations or perspectives, in the sense of the Latin suffix *specto, spectare,* meaning 'to watch' or 'to look at'. However, we can identify a significant set of architecture theories whose main objective is not so much to observe or look at or even reflect, as it is concerned with acting and transforming. This second ensemble of theoretical orientations is concerned with principles related to the production of projects more than the construction of knowledge. Again, it is important to stress that the compass can only accommodate the main vectors identified in a book or theory to help with a general comparison and ideally a didactic categorisation. The fact that a prevailing trend is identified does not imply the rejection of all theoretical nuances that inevitably appear at the core of the text.

The theoretical projects that can be located across the second axis do not have the same doctrinal orientation, far from it. They may be written as professional manifestos; they do not operate in the same manner. One way to operate distinctions along this axis is to look for temporal orientations. A pole of principles for actions (or a project) is directed to the future, while the other is digging into the past, and this is not unusual in architecture. The first pole can be said to be proactive, while the second is retroactive. If we take Le Corbusier's *Vers une architecture* (1923), for example, we can first say that it is neither a historical narrative nor a scientific demonstration. A second reading helps us identify a proactive manifesto closer to Palladio's *I quattro libri dell'architettura*. By contrast, Rem Koolhaas's *Delirious New York* (1978), another modern manifesto, assumes a recursive dimension of theory and design thinking: it intends to act retroactively – in the literal sense of the term for which it is famous – and its reflexive dimension brings it closer to Alberti's *De re aedificatoria.* Le Corbusier's *Vers une architecture* is therefore considered a proactive theory, while Koolhaas's *Delirious New York* positions itself as a retroactive theory.

Let us now switch registers and use a different set of exemplary cases of architectural theory, to avoid confusing what is called a theory with what could be considered mainstream modern professional manifestos. If we examine Françoise Choay's *Allégorie du patrimoine* (1992) (*The Invention of the Historic Monument*), now considered a reference book on the theory of heritage conservation, what can we say of its main theoretical orientation*?* First, that it takes us back in time to a concept – that of heritage – which is not always on the historical side of our compass. There are theories of heritage conservation that consider sociological aspects and, of course, highly technical and technological aspects of preservation. But in Choay's book, the theory of heritage throughout the history of the notion appears retrospective in its reconstitution of the 'invention' of a concept. It is thus better located on the side of historical narratives, like that of Rykwert's *The First Moderns*. [Fig. 2, 3] On the other hand, Catherine Cooke's *Russian Avant-Garde: Theories of Art, Architecture and the Cities* (1992), which considers the impact of the Russian avant-garde on modern theory, is more retroactive, as is Koolhaas's retroactive manifesto. Overall, Cooke's theory maintains that certain doctrines from the Russian past can be mobilised to shed light on, if not direct contemporary practices (that is, in the context of the book, of the 1990s).

Some architecture theories literally revive historical concepts and ideas, and such is the case of Kenneth Frampton's redefinition of 'tectonics' at a respectful distance from that of Semper's. [Fig. 2] We will come back to this comparison. For now, it is more enlightening to illustrate the second axis with a comparison between Robert Venturi, Denise Scott-Brown and Steven Izenour's *Learning from Vegas* (1972), which essentially develops a forward-looking, highly comparative thesis on the constitution of urban identity. Its didactic and prescriptive nature locates it between Le Corbusier's manifesto *Vers une architecture* and Palladio's *I quattro libri dell'architettura*. In comparison with Choay's retrospective narrative and Cooke's retroactive essay, *Learning from Vegas* is both a prospective and proactive essay concerned with orienting future evaluation of urban contexts. If only for its sophisticated comparative and iconic apparatus, *Learning from Vegas* acts as a reference book for practitioners, more than as a text book for geographers (or developers). [Fig. 3]

Surprisingly enough, and for the above reasons, we can look at Jane Jacobs's influential critical theory of American urban planning policies, *The Death and Life of Great American Cities* (1961), as a proactive manifesto, hence as a proactive theory. [Fig. 2, 3] This book has long been one of the most activist theses in favour of a better urban future and a reconsideration of scale and walkability. Surprisingly enough, since Jacobs was a deliberate critic of rationalist planners, including Le Corbusier, the forward-looking tone of her book advocating for dense mixed-use development and sidewalks is located closer to Le Corbusier's proactive side of the modern manifesto, than to Koolhaas's retroactive approach to New York's big narrative. Where Jacobs praises Greenwich Village as a vibrant example of communal life, Koolhaas insists on the 'delirious' phantasmagorias at the source of the metropolis. Jacobs wants to demystify, while Koolhaas 're-mystifies', so to speak.

An important reminder, as we collect and locate theories using this epistemological compass, we look for the main intentions and objectives of a theory as it can be identified in the whole of a single book. This categorisation of one set of theories embodied in a book should therefore not be confused with the orientation of a lifetime. For example, Colin Rowe's famous essay, *Mathematics of the Ideal Villa: Palladio and Le Corbusier compared* (1947), is more oriented toward a transhistorical meditation on a disciplinary object (the villa), while his essay on modern spatial compositions, *Transparency* (1971), written in collaboration with Robert Slutzky, appears more oriented toward project theory, or design theory and therefore more directed to action. If *Mathematics of the Ideal Villa* considers historical objects, it is more retroactive than retrospective. This is so because Colin Rowe wants to demonstrate that some concepts like proportion transcend historical periods. On the other hand, the essay on literal and phenomenal transparency asserts itself as freely speculative and interdisciplinary. It was written in dialogue with an artist (Robert Slutzky). Contrary to *Mathematics*, *Transparency* presents itself as a proactive manifesto closer to *Vers une architecture,* even if Le Corbusier is amply quoted in both texts. It is appropriate to locate the essay on transparency in the lower right quadrant of the compass, where a demonstrative project can potentially become a professional manifesto. [Fig. 2]

Let us consider two other examples. While Koolhaas's *Delirious New York* can be taken as an emblem of all retroactive theories, we should not confuse its quasi-analytical nature with *S, M, L, XL* (1995), designed by Bruce Mau and also featuring OMA projects. The big book from 1995 is an augmented portfolio that intends to guide future design practices. This intention makes it closer to a proactive Corbusian manifesto. These two books from the same main author therefore have opposite aims and lie in opposite quadrants of our compass of theories. Different theses do not belong to the same category simply because they were produced by the same author. [Fig. 2] It goes without saying that many nuances in the structure of a book or dissertation could move it to several positions on the compass as the chapters unfold. This is undeniably a considerable limit to such a compass, which, like any theoretical model, remains only one possible analogical representation of a phenomenon.[8]

In this undoubtedly Cartesian approach, the proposed compass settles at the intersection of two major axes, one considering ways to produce knowledge, the other considering ways to produce projects. In relation to the four poles, we can distinguish eight potential quadrants. The vertical axis enables us to distinguish between theoretical texts that look to the past (retrospective) and those that look to the future (prospective). The horizontal axis enables us to distinguish between proactive principles that aim to prescribe, and retroactive principles that operate as reflective practices. The latter are said to be retroactive because they assume certain elements or concepts belonging to the history of the discipline, while the former are more clearly proactive, at times assuming a tabula rasa, an entirely new set of principles for conducting architectural projects. Beyond the four cardinal directions, we can find more nuances in such a compass, offering no less than eight orientations of architectural theory. If my hypothesis considering dissertations as theories is indeed valid, then these eight vectors define eight orientations to better understand doctoral dissertations in architecture. [Fig. 1]

Four poles and eight vectors to categorise theories (and doctoral dissertations)

Some theories move from the analysis of objects to general history. These can be located between the retroactive aim and the retrospective view. Depending on how you orient the compass, they will be in the upper left quadrant or simply at the left pole. Having worked to increase awareness of Kenneth Frampton's work in France, I cannot fail to notice that his definition of 'tectonic culture' is a theoretical project more than a historical one, and his reinterpretation of history, like Gottfried Semper or Auguste Choisy, formulates a new definition of the 'poetics of construction', venturing into the fringes of doctrinal discourse, which Frampton assumes with confidence.[9] His book *Studies in Tectonic Culture* (1995) lies somewhere between the historical gaze and the retroactive aim, as it borrows a concept from nineteenth-century theory in order to sustain a modern actualisation at the end of the twentieth century. This approach cannot be confused with the one adopted in his celebrated critical history of Modern Architecture, first published in 1980, which although a historical survey, is closer to a political project, and therefore a more personal view of modern theories. His historical survey slides between retrospective and proactive theories. [Fig. 2]

Between retroactive and prospective theories, we find approaches ranging from project analysis to scientific demonstration. This type of theory is both reflective and rationalising. This is where two foundational postmodern works of critique, both published in 1966, can be located: *L' Architettura della città* (1966) by Aldo Rossi and *Complexity and Contradiction in Architecture* (1966) by Robert Venturi. [Fig. 2] Both theories demonstrate a return to historical projects and objects as well as an interest in classical ways of designing with absolutely no ambition to produce new historical knowledge. We cannot locate them in the quadrant defined by retrospective theories. Meanwhile, both theories display a series of approaches and concepts borrowed from various human and social sciences: from geography to anthropology and the psychology of perception to semiotics. It appears, however, that through this penchant for scientific demonstration, they still intend to theorise architecture rather than produce new knowledge in anthropology or linguistics.

Now, we also find architecture theories that function as literary or philosophical essays. These are sometimes centred on one exemplary project or case study, and their oscillation between prospective theory and prescriptive discourse makes them sound like political manifestoes. A lot of theories on the digital turn, for example, are not only analytic and technologically oriented, but tend to be prophetic in nature. Antoine Picon's *Digital Culture in Architecture* (2010), and more recently Neil Leach's *Architecture in the Age of Artificial Intelligence* (2022) may be labelled as introductory essays; they inevitably risk a leap into the future. [Fig. 2] Although not as proactive and prescriptive in tone as *Toward an Architecture*, these essays reflecting the impact of digital technologies on architectural theory and practice can be gathered in the lower right-hand quadrant of the compass as they move from a demonstrative project to a manifesto. [Fig. 2] On the other hand, Mario Carpo's series of books on the digital turn (2012 and 2017) is generally celebrated for their erudite but retroactive theses; hence, they move toward the retroactive pole on the left side of our compass.

There is another sector of architectural theory which, although quite prolific, would appear unusual to most 'hard scientists' and 'naturalised epistemologists'. Far from relying on empirical methods and discoveries, far from using formal tools of logic, the production of knowledge – if there is any – is grounded in professional and at times personal experience. Not only do we find architectural theories based on practical experience – which may sound acceptable for a professional discipline – but their narrative tone often amounts to a personal journal. On the perfectly legitimate strength of decades of professional experience, these authors decide to theorise architecture based on their own practice. Although reflecting on your own journey is certainly salutary, this kind of theory does not hesitate to present a series of personal opinions as a reform of prevailing norms, seeking to accelerate the transition from practice to theory. First published in English at the insistence of Peter Eisenman, Aldo Rossi's *A Scientific Autobiography* is a typical case of this way of writing theory, as is one of Rossi's main influences, Etienne-Louis Boullée's *Essai sur l'art* (1797). [Fig. 2] In this, his last essay, written as a journal that was only published in the twentieth century, Boullée (1728–1799) considers the state of architecture in the storm of the French Revolution, and his '*théorie du caractère*' is located within a meditation and remembrance of his personal, at times nostalgic journey. As it was written around 1797 but only published in 1953, we could even consider it a 'retroactive theory'. In the same vein, we find Rossi (1931–1997) connecting fragments of his own journey and architectural souvenirs in a 'scientific biography' whose title hints at Max Planck's autobiographical book without narrating any scientific journey.

As already mentioned, this compass of theoretical writings does not categorise books by authors but by epistemological and pragmatic vectors. For example, Rossi's two main books do not have the same epistemological or disciplinary value. His *L'Architettura della città* from 1966 is the result of careful interdisciplinary research proximate to a contemporary doctoral dissertation, convening methods and advancements from various disciplines (geography,

anthropology, history and so on) to investigate the hypothesis of 'urban facts'. *A Scientific Autobiography* was first published in English in 1981. Composed as a collage of scattered notes, although arranged without poetic talent, this second book is the result of an unpublished underlying theoretical project titled Città Analoga on which Rossi secretly worked for over a decade prior to its abandonment.[10] Rossi based his meditation on Boullée's – mostly unrealised – projects, whose essay, written at the end of an anxious career during turbulent times, was put together in a style that Rossi particularly admired. Locating these books along with, for example, John Ruskin's *Seven Lamps of Architecture* (1849), is therefore the only way to appreciate their specific architectural – hence epistemological – nature. [Fig. 2]

The quadrant gathering essays moving from personal history to disciplinary manifestos is a risky one if considered as a theoretical writing style. Although many architects may dream of writing as well as Boullée, Rossi, or Ruskin, not everyone may benefit from the talent, nor the legitimacy conferred by their peers. This also has many implications when we go back to our hypothesis connecting theories and doctoral dissertation. I can only advise very young PhD students not to go down this road, which requires long and profound experience.

By considering the eight directions of this compass, we now have as many categories to distinguish the vectors of theoretical writing in architecture. The simplified instruction to use the compass could then be as follows: first, seek to distinguish theories centred on historical objects from those which, without denying the rigor of history, focus on the objects of the sciences, whether the humanities, social sciences or engineering sciences. Second, use the horizontal axis to distinguish theories written as potential doctrines from instructions for designing projects, whether proactive or retroactive in their use or reuse of principles in architecture.

In other words, between historical narratives, scientific demonstrations, reflective and prescriptive projects, anyone who undertakes a meditation on the great diversity of architectural theories is not condemned to wander into an ocean of architectural theses but can profit from the four cardinal points of a compass to orient their navigation and understanding. The eight quadrants offer as many nuances that, in turn, shed light on the variety of methodological approaches at the disposal of an architectural theorist – whether experienced or novice – in this extended disciplinary field that is architecture. And such a compass also allows for some epistemological considerations on the nature of architectural theory. For example, if a theory shifts from a history of architecture to a kind of art history, it runs the risk of no longer contributing directly to the production of architectural knowledge. If a theory veers too much into proactive manifesto, it may prematurely reform common practices, but it will also run the risk of sounding like a recipe book full of prescriptive statements and not a reflexive disciplinary meditation in the sense defined by Alberti in the middle of the fifteenth century.

Eisenman's doctoral dissertation as a case of 'prospective-retroactive' theory

Space is lacking to explain how this way of mapping theories has already stood up rather well to the test of a corpus of contemporary doctoral theses in the past decade. However, since the first 'doctor of architecture' emerged in the middle of the twentieth century, in a slow progression that only accelerated in the mid-1990s, one doctoral dissertation serves to illustrate my hypothesis of a homology between architectural theories and dissertations. It was written in 1963 by Peter Eisenman, who would go on to give architectural theory a particular linguistic and deconstructivist twist in the 1980s and 1990s. His doctoral dissertation has already acquired a mythical dimension. Defended in Cambridge in the early 1960s, it was only published in 2006, not in a completely rewritten form as may be expected for a doctoral exercise, but in the unusual form of a facsimile. Furthermore, this rare document was designed by the demanding Lars Müller publishing house to reinforce its mythical character.[11]

We now know that this dissertation, centred on the formal analysis of the work of several modern architects, was to have a decisive influence on Eisenman's subsequent career as an architect, teacher and theorist. But this never prevented Eisenman from commenting ironically about the usefulness of a thesis in architecture, as evidenced by a remark nestled in the afterword to the 2006 facsimile: 'I have often been asked what the value of a PhD is for an architect, and I have always replied: learning how to sit still for three years.'[12] In the same afterword, and in a romanticised way, Eisenman recounts that after three months of travel in Europe with Colin Rowe, his mentor in architectural theory, he already knew what he wanted to write:

> An analytical work that related what I had learned to see, from Palladio to Terragni, from Raphael to Guido Reni, into some theoretical construct that would bear on modern architecture, but from the point of view of a certain autonomy of form. This led to the title. The Formal Basis of Modern Architecture.[13]

In retrospect, Eisenman places the objective of his doctoral dissertation between two theoretical boundaries: an exercise in orienting and categorising architectural theory, which sounds analogous to the one attempted in this article. On the one hand, he wanted to distance himself

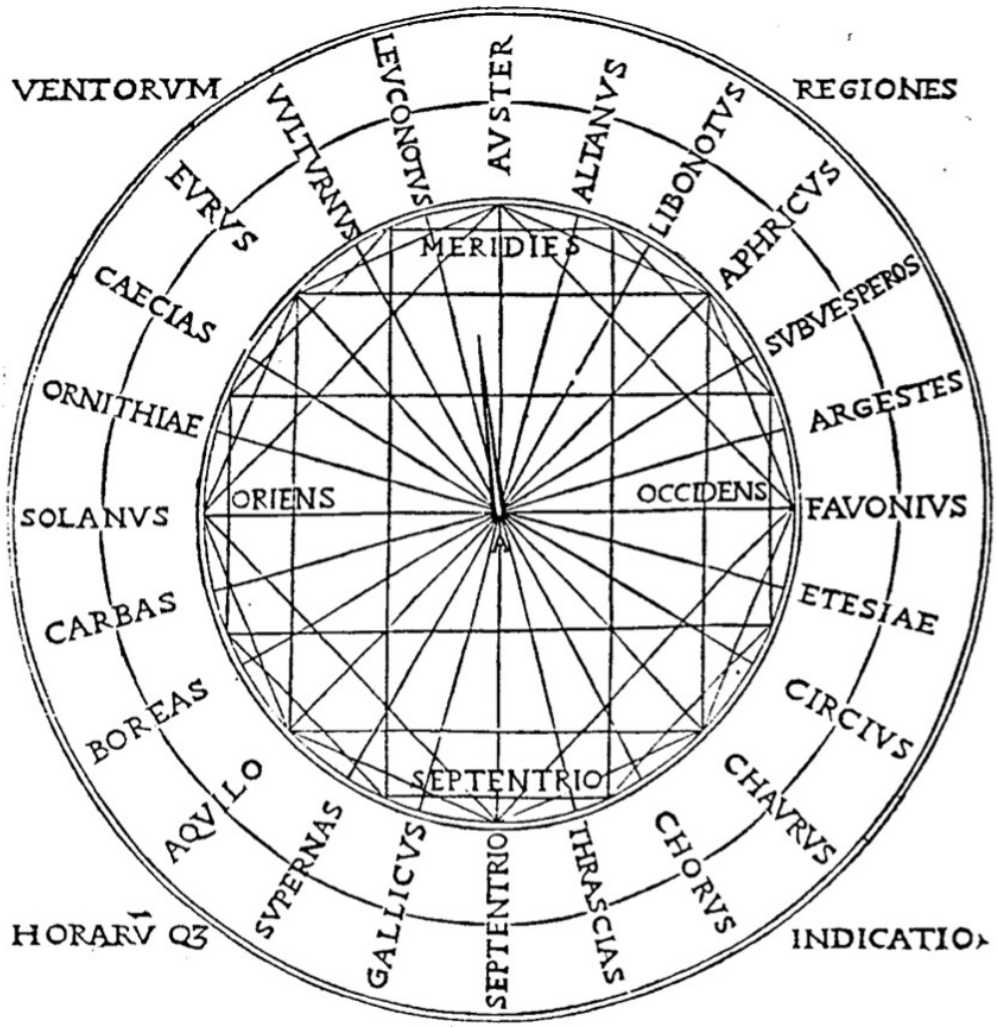

Fig. 4: The *Ventorum Regiones* by Cesare di Lorenzo Cesariano, a compass of winds or 'wind rose' in the first Italian-language version of Vitruvius's *De Architectura* published in Como in 1521. This compass was, in fact, a sundial. Image: Como 1521 edition of De Architectura.

Fig. 5: Octagonal ‘Tower of the Winds’ in Athens. Photo: Andreas Trepte, Wikimedia Commons.

from Christopher Alexander's theory on the mathematisation of form, whose influential *Notes on the Synthesis of Form* (1964) had been partly written in Cambridge. On the other hand, Eisenman insists on the fact that he wished to distinguish himself from the formal ideas of Colin Rowe, to adopt a discourse rooted more precisely in linguistics. Doing so, his dissertation sought to excise historical questions and methods, as much as mathematical logic, to concentrate on the analysis of form in a properly architectural approach, that is – as far as Eisenman was concerned – with a properly critical aim.

In the proposed compass of theories, Eisenman's original essay on *The Formal Basis of Modern Architecture* is therefore best located at the intersection of retroactive and prospective theories, that is, in the lower left quadrant, where theories move from the analysis of projects to an architectural demonstration. Indeed, he intended the dissertation to move from retroactive comparative analysis – which is where we located Rowe's *Mathematics of the Ideal Villa* – to a demonstration closer to a scientific induction, which was Alexander's original intention in *Notes on the Synthesis of Form*. In other words, Eisenman's original theoretical essay is retroactive, as it wants to theorise modern principles, and prospective, as it does so following a linguistically inspired 'syntax of forms'. [Fig. 2] In seeking to determine the 'formal foundations' of modern architecture, it was looking for the laws of a modern language. We need only reread the 1963 introduction to the dissertation to see that this demand for autonomy, explicitly setting historical facts at a distance, was indeed at the heart of his intellectual project.

Eisenman's methodological posture was therefore not retrospective, but neither was it strictly retroactive. As the Swiss historian Werner Oechslin would later show, it consisted of 'stepping outside history' to devote himself to a strict theoretical comparison of the formal aspects of architectural work.[14] Some critics have criticised Peter Eisenman for devoting lengthy analytical discussions to Giuseppe Terragni's Casa del Fascio (built between 1932 and 1936 in Como, Italy) without ever mentioning that it was also a landmark monument of Italian fascism, but we should acknowledge that it was never his purpose to produce historical knowledge.

The Tower of the Winds as an architectural compass

To conclude this exercise in epistemological navigation in the ocean of architectural theories, without closing the discussion while opening retroactively to ancient ways of thinking in architecture, it may be useful to remind ourselves that there are ways of framing orientations that have long been embodied in architectural 'towers of the winds'. These beautiful architectural devices were often eight-poles but some of them were even capable of comprising up to 24 orientations. We find descriptions of these compasses in all editions of Vitruvius's *De Architectura*, whose original illustrations have been lost and had to be 're-constructed'. Though both a compass and a sundial, the one inserted by Cesare di Lorenzo Cesariano in the first Italian-language version of Vitruvius published in Como in 1521 is a good reminder of the often retroactive nature of architectural knowledge. [Fig. 4]

Some were even built. One of the most beautiful of these wind towers was designed in the middle of the first century BCE by Andronicus of Cyrrhus. [Fig. 5] This octagonal device, both practical for orientation and symbolic of a temple of winds, is surprisingly well preserved today in the ruins of ancient Athens. Also called the *Horologium*, it offers itself as an embodiment of a compass defining eight forms of theories in architecture. I believe that the compass of architectural theories briefly presented in this article is, most probably, still hidden in such a Tower of the Winds, somewhere to be rediscovered.

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Notes

In Memory of Jean-Louis Cohen (1944 – 2023).

This text is an updated and expanded version, previously published in French, of a reflection commissioned and published by the late Professor Jean-Louis Cohen, who passed away prematurely in 2023. This new version is dedicated to his memory. It was first presented in part in Jean-Pierre Chupin, 'Un compas des théories dans l'océan doctoral en architecture' in *L'architecture entre pratique et connaissance scientifique (Actes de la rencontre du 16 janvier 2015 au Collège de France),* ed. Jean-Louis Cohen (Paris: Recherche & Architecture, Éditions du Patrimoine, 2018), 36–51.

1. Jean-Pierre Boutinet's anthropological categorisation of the notion of a project as a 'figure or trope of anticipation' at the crossroads of nature-culture and symbolic-operational still is unsurpassed. Jean-Pierre Boutinet, *Anthropologie du projet* (Paris: Presses Universitaires de France, 1995).
2. The French expression '*conduites à projet*' could be roughly translated with 'project behaviours'. Jean-Pierre Boutinet locates the 'project' in the fourth category of anticipation methods. Rather than adaptive, cognitive or imaginary, the project is a 'blur-type operational anticipation'. This categorisation appears in a table in the first edition of his celebrated *Anthropologie du projet* (Paris: Presses Universitaires de France, 1990), 68. It should be noted that his reflection on the architectural project, although it was part of his doctoral thesis, had been rejected by the scientific publisher PUF in 1990 and was only included in the second edition in 1995.
3. Jean-Pierre Chupin, 'Dans l'univers des thèses, un compas théorique', in *Les Cahiers de la recherche architecturale et urbaine* 30 – 31 (Trajectoires doctorales 2) (2014): 23–40. See also: Jean-Pierre Chupin, 'Vertiges et prodiges du contresens (Le projet comme traduction)' in *Recherche par le projet / Research by design*, ed. Flora Pescador and Vicente Miravalle (Lyon: ENSA Lyon + ULPGC, 2015), 28–36.
4. Jean-Pierre Chupin, *Analogical Thinking in Architecture: Connecting Design and Theory in the Built Environment* (London: Bloomsbury, 2023).
5. On this subject, one of the last outstanding anthologies that clearly intends to make a clean sweep of a history of architectural theory from a critical standpoint is *The Sage Handbook of Architectural Theory*, published in 2012 under the direction of Greig Crysler, Stephen Cairns and Hilde Heynen, to consider emerging issues of sustainability, ethics, of heritage and digital technologies that require a redesign of architectural theory.
6. The bibliography on this subject continues to grow but I can refer to the essay by Antoine Picon which situates the question in a contemporary context: Antoine Picon, *Ornament: The Politics of Architecture and Subjectivity* (London: Wiley, 2013).
7. Manfredo Tafuri, *Teorie e storia dell'architettura* (Bari: Laterza, 1968); Alberto Perez-Gomez, *Architecture and the Crisis of Modern Science* (Cambridge, MA: MIT Press, 1985).
8. On the limits of any theoretical models, particularly in architectural theory, see Chapters 1 (Reflecting on Design Thinking) and 4 (From Linguistic Metaphors to Critical Analogies) in Chupin, *Analogical Thinking in Architecture*.
9. Cyrille Simonnet and I have introduced Frampton's theories of tectonic culture in French in Jean-Pierre Chupin and Cyrille Simonnet, eds., *Le projet tectonique (avec une introduction de Kenneth Frampton)* (Gollion: Infolio, 2005).
10. See my chapter on Aldo Rossi's theory of the *Città Analoga*, 'In the Labyrinth of Analogous Cities', in Chupin, *Analogical Thinking in Architecture*, 101–30.
11. Peter Eisenman, *The Formal Basis of Modern Architecture* (Zurich: Lars Müller Publishers, 2006).
12. Ibid.
13. Ibid.; my emphasis.
14. Werner Oechslin, 'Out of History? Peter Eisenman's Formal Basis of Modern Architecture', trans. Christoph Shläppi, in *Peter Eisenman, Die Formale Grundlegung der Modernen Architektur* (Zürich: GTA / Gebr. Mann, 2005), 11–60.

Biography

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In Defence of Soft Pragmatism: Embracing the Myriad Modalities of Theory

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Abstract
Diminished rewards arise from attempts to establish hierarchies within the healthily variegated scope of contemporary theory. A re-emerging instrumentalism is present in current architectural theories, which frames certain modalities as indulgences. To appraise theory – if possible – it is necessary to ask what criteria exist for sorting out theory. Exploring the edges of discourse can accomplish this: to paint a simplified antipodal dialogue between differing perspectives to better understand the scope of theory. This essay uses a dialectic between existential theorists (those addressing contemporary issues focusing on human survival) and esoteric theorists (those addressing a myriad of topics that are specialised and not as clearly relevant to contemporary topics). Following this analysis, the boundaries between these two modalities are deconstructed to cast into doubt the methods of appraisal. This is bolstered by a brief reminder of the lessons of functionalism in the last hundred years and follows with the stubborn residue of post-structuralism. William Blake, who revealed a path towards radical subjectivity, is treated as a proto-post-structuralist. All of this is in service to a deep scepticism of appraisal and a plea for a 'softer pragmatism', one that softens the hard boundaries between differing modalities of theory.

Keywords:
Post-structuralism, William Blake, pragmatism, standardisation, theoretical modalities, ambiguity

One Sentence Summary
This essay employs a dialectical framework to interrogate the parameters informing the appraisal of theory, utilising concepts of the individual as explored by William Blake, along with several architectural examples.

> 'Where are his Works That he did in the Wilderness.'
> – William Blake, 'The Laocoön'

Fuzzy Shapes

On a recent prize jury of senior architecture student projects at my university, I discussed a crisis with one of the jurors: how would they award a lone prize to such a broad range of student work? Among the presentations, there was a small hospital studying healing proxemics and strict hospital code; an anti-monumental museum set in Washington, D.C. addressing political rhetoric in architecture and the inclusion of historically marginalised artists; a speculative futurist utopia set in Puerto Rico where the effects of colonisation are pervasive; and an art installation in a disused grain bin that experimented

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with expanded definitions of drawing and the residues of corporate agriculture. The jury's search for standard criteria was sidestepped, and the prize was awarded at a reduced amount to each team.

This situation encapsulates the dizzying yet healthily expanded scope of architecture and theory in the twenty-first century and the diminished rewards that arise from attempts to establish hierarchies within these variegated approaches. The treatment of myriad complex topics unfolding in our time flitters between an inclusionary accumulation of new and refreshing lines of inquiry and an exclusionary rejection of inherited knowledge, one that sloughs off whole fields of study as irrelevant dalliances. Re-emergent instrumentalism, which bases merit solely on its practical usefulness, is present in much of contemporary architectural theory. This neo-instrumentality frames certain modalities as indulgences that ignore immediate existential emergencies.

Current historians and theorists are asking how they can absorb all this expanded knowledge into their studies. Conversely, they are asking what past theories to cover over – to discard the vestiges of (perceived) dead discourses. This curation is not unique to our moment: ideas throughout history are adopted, adapted and discarded, but the present moment is challenging to grasp as the profession is atomising into silos of specialisation while also striving to move the design community towards collectivist goals that address human survival.

To appraise the value of theory – if possible – and to make sense of this drawing and quartering of contemporary knowledge, it is necessary to ask what criteria are used for sorting out theory. Exploring the edges of discourse is one way to accomplish this: to paint a simplified antipodal dialogue between differing perspectives to understand the scope of theory better. Studying wide-ranging examples from other disciplines is another way to help interrogate architectural theory's hardened boundaries. In this essay I will discuss Northrop Frye's literary theory (as explored in his books *Anatomy of Criticism* and his study on William Blake in *Fearful Symmetry*), historical examples of functionalism, and some stubborn reminders adopted from post-structuralist philosophy. This exploration may help to clarify architectural theory's role within the discipline, or it may cast a clear appraisal of architectural theory into clear doubt.

The dialectic between existential and esoteric theory

In a time when multi-pronged emergencies beseech the world – from the global retreat of liberal democracies, the ever-growing threat of climate change, the rise of global inequity, the re-alignment of neo-Axis powers, and the spectre of another world war – architecture theory sits in a strange place, in search of its specific agency. Existential theorists who directly engage with these most dire topical concerns are compelling and persuasive. (The word existential does not refer to the philosophical school of thought but to the term as it relates to our continued existence on this planet.) Theorists grappling with topics such as the environment, systemic inequality, political revolution or war have a claim of instrumentality within their discourse: they contend that these are the topics most worth discussing. These contemporary thinkers often frame theoretical topics outside these parameters as esoteric excess, lacking substance in a dark age, appropriate only in a time of plenty and thriving. Existential theorists often call for a new project for society, a collective refocus, where all eggs are put into one basket. For example, eco-political policy, such as the Green New Deal – at its most extreme – suggests a collective global effort where individual passions are to be deferred and sacrificed for the sake of a better future. Politically revolutionary theorists frame their topics in terms of toppling embedded systems of inequality, such as the colonial patriarchy, again, a request for destruction in service to renewal.

Many current branches of history and theory explore topics outside this tenuous definition of existential theory, which I will call esoteric theory. Esoteric theory addresses all things outside the scope of what is perceived as immediately applicable to contemporary topics relating to human survival and well-being. The word 'esoteric' historically describes the specialised topics of knowledge only understood by certain in-groups, but in using this word, I also want to enfold theories by dilettantes, poets, and other outsider experimental theorists whose work reaches beyond visceral instrumentality. These topics are, therefore, self-reflexive and rarely externalise into praxis. They are limitless in their diversity, such as, for example, a researcher studying the history of wallpaper in nineteenth-century New York tenements. Many esoteric theorists are experiencing their own existential crises; how can they work on their research when academic institutions that foster them risk being caught in a whirlpool of historical, political, neoliberal and environmental upheaval? How can they focus on their specialised topic when a collective project may be necessary for survival? How does their theory contribute to the conversations of the moment? Do certain topics within theory take precedence over others? Are some branches of theory mere vanity, or worse, complicit in continuing systems of oppression and environmental calamity?

Caroline Levine, a literary theorist, dwells on these questions in her book The Activist Humanist: Form and Method in the Climate Crisis. She grapples with how the

humanities participate in existential conversations and where, specifically, literary theory can situate itself in this context. Levine rejects anti-instrumentality (a common trope used in critical contemporary humanities) as a default stance against the status quo and suggests that its norm-breaking patterns (such as theorists who imagine utopian futures) can only take humanity so far, keeping theory in a vacuum of intention but without a concrete vision.[1] Her solution seeks to reframe current trends toward an 'affirmative instrumentality', and to focus on 'collective continuance', which focuses on the immediate needs of survival, such as reliable food sources and dependable shelter, 'to plan and build conditions for intergenerational flourishing in the face of inevitable change'.[2] The focus on the mundane and repetitive tasks of collective continuance, Levine argues, is the unglamorous direction the humanities should move towards. Levine's book is a call towards mass collective action. This framework implies that existential theory is the most vital approach to current theory and should, therefore, be appraised highly. However, there are complications to this approach.

Before considering these complications, it is necessary to explain how I formulated this dialectic. The dialogue between existential and esoteric theory emerged after long considering my colleagues' many approaches to architecture. The diversity of the senior prize jury mentioned above stemmed directly from the faculty's lack of homogenisation. This is a positive sign of a healthy environment, not overtaken by a few elites' strong-willed pedagogical biases. However, heterogeneous viewpoints result in sometimes collegial and sometimes heated exchanges between professors. These individuals have sorted out architecture to suit their passionate interests, and most discussions are rooted in a defence of their specific hierarchical ordering of architectural priorities. Some colleagues are classifiable as existential theorists. These include, for example, those involved with: Marxist critiques of neoliberalism; decolonised and de-instrumentalised imagined futures; black identities' naked wounds in contemporary America; and with those seeking ways that architecture addresses the climate crisis (through energy performance and construction research). Other colleagues could be considered esoteric theorists and include those with specific focuses ranging from the histories of panel construction in post-war Czech socialist housing to the novel ways wind-powered instruments infuse magical realism into architectural craft. This produces a student body without an overarching design personality. It also exposes students to diverse design approaches. Critics say (including some in my department) that this indicates the university lacks a clear progressive vision, which is why it is essential to dwell further on with the established dialectic discussed above.

Existential subjectivities

When appraising theory, there are many issues that arise when framing existential theory as more critical than esoteric theory. First, this dialectical binary is fraught with contingencies and other affordances that confuse what constitutes an existential threat and what teeters over the edge into esotericism. Therefore, the criteria demarcating theory's importance are blurry, gradated and hard to define. Second, the diverse approaches to existential theory contain myriad nested hierarchies that compete for high ground. The complex interconnections between topics obfuscate what methodologies are most effective for 'collective continuance'. Therefore, some existential theorists propose collective efforts that prioritise political action over environmental action or techno-positivist solutions over other approaches. Part of this stems from some theorists' inability to synthesise their methods with other modalities. Therefore, both existential and esoteric theorists are subject to 'narrowness in the selection of evidence'.[3] As summarised by Alfred North Whitehead:

> The narrowness arises from the idiosyncrasies and timidities of particular authors, of particular social groups, of particular schools of thought, of particular epochs … The evidence relied upon is arbitrarily biased by the temperaments of individuals, by provincialities of groups, and by the limitations of the scheme of thought.[4]

Third, existential theories focus on a spectrum between regional and global scales: the issues of collective continuance are often nested within their specific regionalist circumstances, and some areas are experiencing more immediate threats than others (Ukraine, Palestine). A 'hyperobject' like climate change is at a much different scale in time and scope than a failing crop that sustains a small collective.[5] Scalarities of time and space can, therefore, temper perceived hierarchies within a theory, complicating its clear appraisal. Fourth, theorists addressing the possibilities of the future are inherently speculative. Future speculation is an often specious estimate filled with unforeseen alternate outcomes, data that may be exaggerated or understated, or narratives that skew data and public sentiment toward its goals. The myopic present moment often makes current circumstances appear more permanent than they are. For example, in 2007, when the e-reader tablet deluged the market, a flood of articles proclaimed the end of physical books. With the subsequent ascent of young adult fiction, among other factors, this prediction has proven false.[6] This is a humbling check on

the efficacy some existential theorists assert when making confident claims about future conditions.

Fifth, presentism – an application of current epistemic thinking to the analysis of the past – can create biases that obscure why certain topics lumped in as esoteric theory may hold instrumental value or be relevant for understanding current conditions. Medieval studies scholars endured a gruelling confrontation when American far-right media figures in the late 2010s weaponised their seemingly esoteric and historically distant topic. The subsequent debate on contemporary engagement, patriarchal bias and neutrality uncovered prickly complexities that present discourse brings to history.[7] Contemporary interests, desires and available resources therefore delimit precise analyses of history (historiography), and affirm that history has always been a collaboration between past events and the curatorial biases of the present. Paradoxically, one often touted tool of objectivity used in historical research, hindsight – a bird's eye view that presumably sorts out the past – can be clarifying, but it too is manipulable by presentism.

Sixth, the writing style of architectural theory can bias its reception. Whether using scientific jargon, mathematical formulae, philosophical language, journalistic aloofness, personalised narrative, whether the writing is overly formal or informal, or whether it engages with wit, irony or symbolism, all can manipulate the subsequent appraisal of that theory.

Pitfalls of the pragmatic

Another way to tackle this dialectical loggerhead between existential theory and esoteric theory (particularly regarding the concept of competing nested hierarchies) is by examining historical lessons of functionalist practice within architecture. Various practitioners of functionalism sought to instrumentalise social, material, programmatic and construction techniques in architecture to codify a repeatable scientific standard, uninterested in the repetitions of outmoded historical practice. These methods created a sheen of efficacy, a bias of illusory objective realism that led down many misleading paths.

The multiple modalities of functionalism practised by the various architects espousing it in the early twentieth century ironically undermined their declarations of objectivity. Instead, the debates over functionalism's correct approach reified its state of hierarchical indeterminacy. Whether it was Adolf Loos's abolishment of ornament, Hugo Häring's exacting organic biomimetic approach, Mies van der Rohe's structural and material-focused spatial clearing, Alvar Aalto's ergonomic material sensitivity (Paimio Sanatorium), or the Eastern European's focus on mass production, prefabrication and ideal housing for the socialist masses – each vied for instrumental supremacy in the functionalist debate. The Czech architect Karel Tiege clarified these conflicts of dominance in his critique of Le Corbusier's unbuilt 1929 Mundaneum. Tiege harangued the encyclopaedic museum design as indulging in historicised academicism, lumping Le Corbusier together with the anti-modernist bourgeois establishment. As Pete A. Zusi summarises: 'Le Corbusier could only interpret this charge as the implementation of utilitarian "police measures" against his own "quest for harmony" and aesthetic efficacy.'[8]

Another priority dispute that illustrates functionalist relativism is encapsulated in a debate over the 1927 Weissenhofsiedlung housing block in Stuttgart between the participating communist cohorts and Mies van der Rohe, who spearheaded the urban proposal. Mies prescribed an organic form for each project in the urban ensemble that grew out of the needs of dwelling – an approach to architecture that shunned past obsessions with style, echoed in his dictum: 'Form is not the goal but the result of our work.'[9] However, these ideological axioms didn't interest the communist participants, who rejected the entire project and proposed instead 'one hundred twenty dwelling units at a cost of ten thousand each, and that these dwellings be placed on the housing market without delay. This would be an answer to the needs of the overwhelming majority of those in Stuttgart who are seeking homes.'[10] Their proposal eschewed 'building villas for the affluent and banishing the underprivileged to a separate neighbourhood.'[11]

Post-war functionalism persisted in pockets throughout the rest of the century. Colin Rowe's famous critique of second-generation modern architecture's turn towards a neoclassical parti echoed Tiege's critiques of the 1930s, as if the return to symmetry and geometric purity in contemporary work during the 1950s suggested a mannerist retreat from the heroic practicality of the International Style.[12] Alison and Peter Smithson adopted new brutalism in England as an anti-aesthetic position that focused on context, no-nonsense materiality, and sociologically informed programming, which they termed 'an ethic, not an aesthetic.'[13] The same argument can be made for the precise programme fetishisation of the new pragmatists in turn-of-the-century Dutch practice and their problematic interpretation of a perceived 'realism' and an information 'datascape'. Roemer van Toorn described the method:

> The touchstone here is not subjective vision but an addiction to extreme realism, a realism that is intended to show no theoretical or political mediation, a kind of degree zero of the political, without thought about the consequences of the social construction it would lead to in reality.[14]

The tendency to over-instrumentalise persists with the existential theoretical turn, which positions theory as solely the producer of the answer to problems, intended to set standardised frameworks for implementation. Whether theory manifests as the poetic narrative speculations of the dilettante, the archivist's dive into a specific historical topic, or the interpretation of a scientist's detailed data analysis, all of these methods –existential, esoteric, and all in between – are by default blinded by the subjective choices of their writer, the curators who whittle down content, peer reviewers who shape that content, and the public it engages with. The persistence of this pragmatic approach reveals the amnesiac cyclical nature of already rehearsed debates. Outside of specific mandated regulations and standard practices (which vary regionally), architecture is a loose profession with many affordances; it contains too many epiphenomenal externalities to grant it an autonomous discernible shape. Function in the building arts is, therefore, complex and contingent; through trial and error and non-universality, certain construction techniques, performance criteria or programmatic strategies can approach efficacious methods that improve upon what came before. The problem is not found in the methods but in the puritanical and near metaphysical absolutist leaps that many theorists take in a field with so many moving parts.

A contemporary example: heavily touted techno-positivist construction techniques were announced in 2022 via ten 3D-printed homes proposed in the small town of Muscatine, Iowa. Using little human labour, a large robotic arm would print the main walls of the homes. They were 'hailed as cheaper to produce than traditionally built houses, … [would] take as little as 22 hours apiece to print and would be less costly to heat and cool'.[15] Yet, problems with programming the new technology, the extruding process, concrete cracking, and the volatile hot and cold seasons in Iowa combined to force the developers to abandon their plans. The partially built first house was torn down. Investments at the city, federal and university levels poured in for this new technology, but plans for 3D printed construction in Iowa were indefinitely halted. Innovation through experimentation is noble, and mistakes can lead to piecemeal refinements in building technology; however, the narrative sheen of blind hope in technology just as often leads toward visions of a future before it has arrived.

Post-structural spectres

The extended dialectical dissection above and the brief overview of functionalism in architecture inevitably lead to post-structuralism – emergent in literary theory (but extended into all the humanities) in the last half of the last century as a reaction to the persistent systematic, exclusionary and scientistic aspirations of the structuralists and the New Critics, among others. Many twenty-first century theorists have forgotten or ignored the post-structuralist moment, one that reified the blinding veils of subjectivity and the complex implications this has for theory.

Multi-pronged, simultaneous, fragmentary and overlapping modalities of thought are ever present in post-structuralism. Theorists acknowledging this multi-planarity enrich their work by disrupting assumed hierarchies and narratives. The architectural theorist Catherine Ingraham states that 'an analysis [of any building] in this vein would not be a history of various individuals, or political regimes, but an analysis of the sedimentations of discourse – architectural, political, cultural, propagandistic…'[16]

These 'sedimentations of discourse' need acknowledgement for theory to be effective. The isolated vacuums of ultra-specialised topics are enriched when situated alongside the multi-planar cultural, historical, philosophical and ethical modalities beyond their immediate domain. This process helps contextualise a theory's positionality. Catherine Ingraham, furthermore, discusses architecture's unique place in post-structuralist thought as, in part, epiphenomenal:

> The founding of the discipline on the ground of something else … is complicated by the almost ubiquitous condition of architecture as a discipline that is a collection of many bodies of knowledge. The architect is a generalist, a collector of disciplines.[17]

This lack of definition in the field has led theory down a well-worn path that seeks to clarify these fuzzy edges. Attempts to autonomise architecture from other embedded fields of thought rebut many expansive and rich ways that current architectural theorists are discussing architecture. Colonialism, patriarchy, gender norms, materialist archaeology, neo-liberalism and many other topics are newer forms of inquiry brought into the architectural fold. Most of these approaches came about in the scopious environment opened by post-structuralist thought.

Lessons from the *Laocoön*

Another example that grapples with this multi-planar way of thinking reaches back to the nineteenth century. The quote from William Blake at the start of this essay is taken from the poem/engraving, *The Laocoön*, etched by Blake in 1826. [Fig. 1] This piece subverts nearly every structural convention of neo-classical poetry, eschewing the linearity of the text, the unity of typeface, the uniformity of size, and the language used. It celebrates text as pure form – the materialist words are coiled and stuffed

between the spaces of his etched rendition of the famous ancient sculpture (discovered during the Renaissance – a source of robust art world debates in Blake's time). Julia Wright describes the poem as an attack on the conventional neo-classical status quo. She states that the poem is akin to a hypertext: 'In a challenge to the conventional constructions of the properties (and proprieties) of the arts, Blake removes the reader from the tyrannies of causality and sequence.'[18]

This effect liberates the reader from conventional and instinctive ways of interacting with the text. Attempts to transcribe and organise the lines of the poem in the countless anthologies of Blake's poetry reveal the inadequacy of traditional linear formatting: 'Each of these interventions is a reading, and the plurality of the editorial interventions indicates the degree to which Blake has challenged the most basic rules'.[19]

This arbitrary ordering also burdens the reader, requiring a multiple simultaneous absorption of the text to approach an understanding of the whole. The words surrounding the sculpture are akin to the body of theory surrounding a topic: they approach a subject from many different vantage points, unordered, without hierarchical guidance or an understanding of overall unity. Perhaps one of the most perplexing takeaways of this proto-post-structuralist tact is the impossibility of complete comprehension, simply because the human mind cannot process everything simultaneously. This unsatiated, fragmentary understanding is, therefore, all that may be available to comprehension.

Anatomy of appraisal

Valid theory within this Blakean post-structural understanding is, therefore, appraised not on its placement within a hierarchical order but based on its engagement with the vast multi-planarity of a given topic. No small journal essay can contain the multitudes that any topic engenders in a complex world; however, simply acknowledging that these multiplicities exist is necessary and often forgotten, especially when obscured by the urgent charge of existential theory. Theory is better appraised if it recognises – by default – biases, flaws in logic, blind spots, narrative oversimplifications, and the unique mixture of the writer's privilege and disadvantage. A strictly Marxist reading, a mathematical set of conclusions, or a well-contextualised and keenly observed formalist reading are all limited in their range. The author's unique hierarchies of focus determine whether a theory is formal, scientific, feminist or political. Yet, the ordering systems themselves do not mean that the constellation of all other modes of inquiry are absent from any given theory; these modalities are present to some degree in every conceivable theory, whether apparent or not. Northrop Frye's book about William Blake, *Anatomy of Criticism,* analyses a similar idea in literature, but it is instructive here: 'while one mode constitutes the underlying tonality of a work … any or all [others] may be simultaneously present.'[20]A topic, therefore, is complexly understood as the aggregation of all who have and will study the subject from many vantages.

Within these tangled brambles there are useful affordances to tease out. Theory deftly simplifies and curates information; this is one of its most common uses (and one of its most frustrating limitations) – to isolate and consider something within the vast network of its conceptual possibilities. Otherwise, any given theoretical inquiry would require an exhaustive book-length tome to examine the topic from every conceivable angle while leaving room for the expansion of future modalities. Frye clarifies that theory, 'which translates the implicit into the explicit, can only isolate the aspect of meaning, large or small, which is appropriate or interesting for certain readers to grasp at a certain time.'[21] The goals of a valid theory shouldn't attempt to eliminate or minimise subjectivities in order to establish new grounded objectivities. Instead, and as much as possible, the subjectivities of curation must simply be mapped, acknowledged and understood by its author and viewers. Theory is a living document subject to deconstruction, reassessment, dismissal or promotion. This constant unfolding hinders a clear understanding of what is valuable or forgettable in the theoretical arena.

Ethical frameworks for appraising theory are equally subjectivised within the present moment and within tribalistic bubbles; however, this does not negate the efforts of many theorists to tackle topics from the perspective of helping humanity survive, thrive and give a voice to the voiceless. But, as Frye states:

> Value-judgements are subjective in the sense that they can be indirectly but not directly communicated. When they are fashionable or generally accepted, they look objective, but that is all … this always turns out to be an illusion of the history of taste.[22]

The effort of ethicists can be a valid form of appraising theory, but it is still inescapably a product of all the subjectivities described above.

Many contemporary theorists dismiss the ideas of significant past thinkers because of their prejudices (by holding historical figures to the ethical standards of today) or by taking historical ideas seriously based only on their purposefulness. The complexity of a person or a theory can be oversimplified or reduced to one acceptable monolithic interpretation, which flattens discourse. An alternative to this is to acknowledge the complexities, contradictions, and moral shortcomings of past figures (such as Martin Heidegger or Ezra Pound, both Nazis) when citing them

Fig. 1: William Blake's etching *The Laocoön,* completed in 1815. Source: Wikisource.

to expand understanding rather than performing an all-out erasure. This is not an apologia for bigotry, nor a plea to continue the status quo power structures of oppression. Instead, this is a plea for a moment of reframing, turning precisions into soft precisions, and rejecting the weaponisation of the practical, the relevant, the moral and the didactic while striving for rigour and peer-to-peer engagement. The post-structural view celebrates the mess and seeks to struggle within it.

This uncentred and nominal path may not be as potently satisfying a conclusion to many regarding the appraisal of theory, but it is preferable to the alternatives of scientific or technological positivism, political absolutism, formalist dictates, didactic manifestos, or the hierarchical reproductions of class, race, sex and gender. This framework critiques the limiting and agenda-driven scope of right-wing ideologues seeking to simplify the world through convenient scapegoats. It critiques the Marxist polemic that paints many theorists as insufficiently focused on the project of labour equity. It critiques the climate change polemicists that cast any other theory as indulgent vestiges of a time before the burning world or the decolonialist or the feminist that frames theories outside of their immediate scope as distractions that are complicit in reifying the white imperialist patriarchy.

In many ways the points above are already implemented by theorists. Architectural theorists today often include historiographies of their topic and view it through many modal lenses. Problems arise when theorists do not acknowledge subjective bias in their work and instead evoke scientific positivism intended to obliterate outmoded esotericism in service to an existential cause. Therefore, in this essay I disrupt the possibility of universal criteria that organise, value and appraise the multitudes of theories.

A soft manifesto, a soft pragmatism

These reminders are not intended as a capricious judgment that frames all theories as irrevocably inadequate, lost in a vortex of relativity and non-referentiality. In the spirit of the juror's ambivalence towards the senior architectural prize mentioned above, this essay rejects the rigid boundaries between existential and esoteric theory. Instead, I propose a more diplomatic inclusivity, one that avoids reentering a neo-instrumentalised period that dictates what is or is not appropriate for discussion. This requires a softer pragmatism, a loosening of dogmatic thinking, an abandonment of orthodoxy, and a less hegemonic playing field that celebrates the unique contributions of all the rigorously curious.[23] Soft pragmatism paints all theories approached with good faith, passion and purpose (within their limits) as valid if they avoid absolutist certainties and grapple with their open-endedness. Soft pragmatism cushions hard conclusions and loosens inflexibility. This approach is resonant with the work of expanding the field. Expansion through diverse accumulations of knowledge – enriching history rather than dismantling and replacing it – is one way the profession can avoid becoming a victim of the delusional bubbles that pragmatic didacticism can foster.[24]

Soft pragmatism allows a theorist autonomy to follow any thread that passion, interest, duty, compulsion or a sincerely held sense of purpose leads them toward, rather than seeking out topics through a sense of peer pressure, guilt about relevance, or strategic calculation designed to please curators or the public. Instead of negating the possibility of any theory, this is a more humble and less ambitious reframing of theory, one that counters the historical tendency of totalising visions. In this context, appraisal still exists but is contingent upon softer grounds, such as: curation, opinion, desire, consensus, mood, topical milieu, and unconscious contemporary historiographic bias, among others.

What follows is an extended example of a soft pragmatic theory, one that is neither particularly existential nor esoteric, one that is self-reflexive of the topics discussed above, one that is both cheeky and serious, one that may or may not be 'true', and, therefore, one that acknowledges its fragmentary nature within the unknowability of the post-structuralist spectre.

From the archetype to the individual: towards a post-standard future

Many twenty-first century tensions in the design community stem from an uncomfortable mismatch between the drive for standardisation and the celebration of individuality. The twentieth-century age of scientific positivism and the tendency of the modern movement to obsessively look for a one-size-fits-all benchmark for everything led to an epistemic flood of standardised thinking, one that the functionalists embraced as a salve against chaos.[25] Standards were intended for everything from housing, lighting, furniture, the urban grid, prefabricated manufacturing systems, to Taylorised building construction practices, which in turn informed the decorum of 'mass-man,' social conformity, acceptable mores and so on.[26] In literature, psychology, science and philosophy, the focused framework of thought centred around the archetype, the typological, the allegorical and the abstract. Ernst Neufert pioneered graphic standards for all elements of the built world. In the first edition of his book Architect's Data, people were illustrated as naked, featureless factory dummies. [Fig. 2]

Standardised thinking remains the status quo for the mass production of commodities, and architecture has long tried to streamline itself with these smaller-scale processes. However, architectural mass standardisation hasn't progressed in the scope and scale envisioned by countless

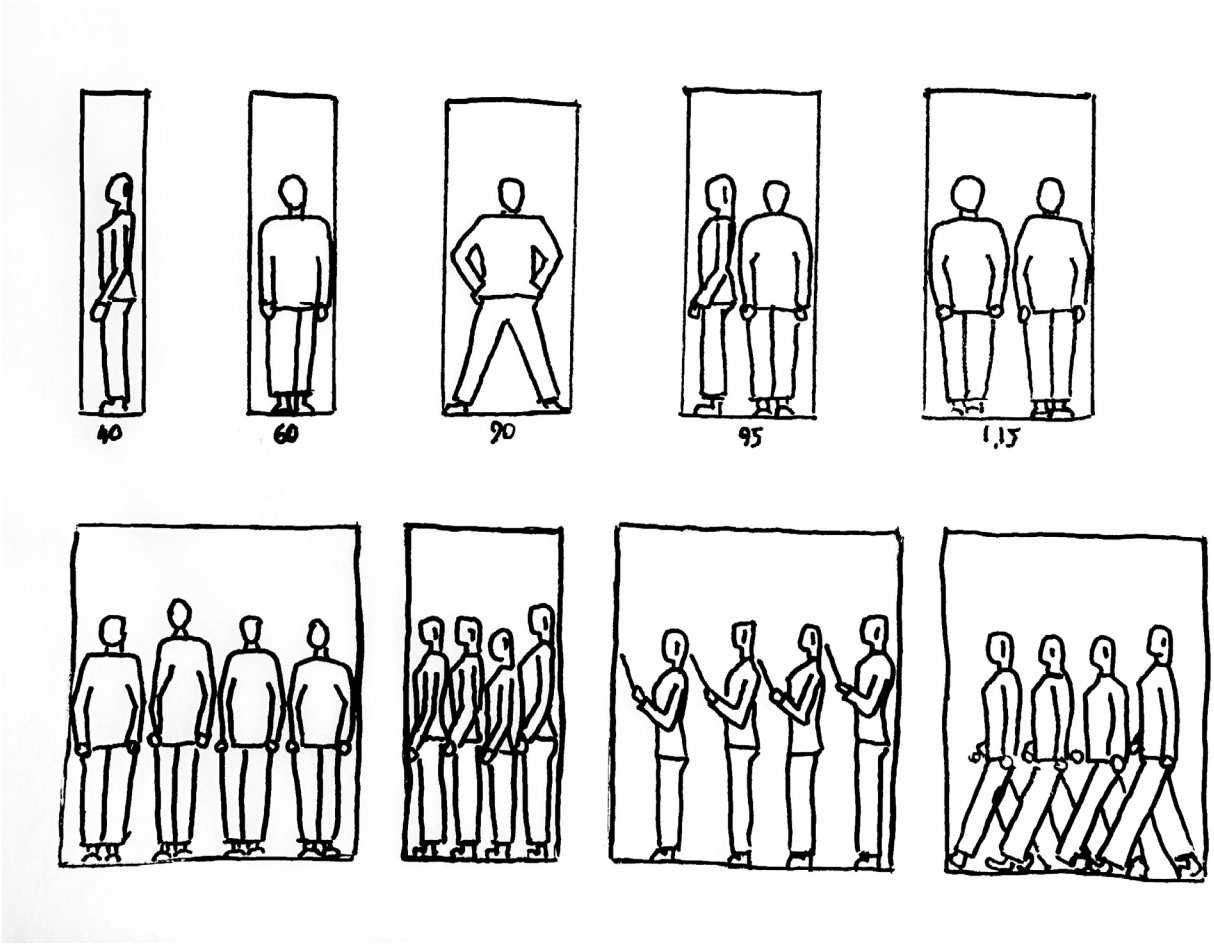

Fig. 2: Illustration from the first edition of Ernst Neufert's Architect's Data, 1936. This page shows 'universal' standard dimensions for the average human body, which determines the width of hallways, the height of desks, and the dimensions of chairs. Facsimile drawing: author.

designers. From the model tenement to socialist mass housing to the suburbs of Levittown to the adoption of the 'tower-in-the-park' projects in the United States, architectural standardisation has been flawed, symbolic and fragmentary in implementation. In the early twenty-first century, the emerging trend of 'mass customisation' suggested a new hybridity, a standardised non-standardisation of cladding elements using complex software like Grasshopper. These efforts never materialised on a large scale and were co-opted instead to serve the stylistic flights of parametricism and blobitecture.[27]

Our inherited zeitgeist of the abstract archetype is being supplanted in the twenty-first century by a radical individualism that diffuses standard classifications such as class, race, size, gender and sexuality. This approach does not degenerate into the anonymity of *'mass man'* or result in buildings considered abstract typologies ripe for mass production.[28] A few examples can deconceal this overall epistemic shift. A doctor's office waiting room in the twenty-first century encapsulates this emergent non-standardised milieu. In the previous century, a doctor's waiting room would have consisted of many chairs, all the same size, material, colour, and configuration. Today, the diversity of body types is visible in the variety of chairs available. In addition to chairs for the average-sized adult, there are smaller chairs for children, wider chairs for the obese, taller chairs for those with difficulty standing up, clustered chairs, and standalone chairs for a multitude of social configurations. The Americans with Disabilities Act has helped fuel this diversification in many previously standardised objects, such as drinking fountains and railings. The reluctance toward non-standardisation (primarily because of profit-motivated efficiencies) in, for example, airplane seating is a perennial topic of public complaint.

Airline seating uncovers a lagging tension between the epistemic shift from standard to post-standard thinking. Another clarifying example of this lag looks back to the waiting room chairs – although they may be many shapes and sizes, they are usually made of the same materials and clad in the same fabric, which indicates a sort of in-between confusion in the episteme. Some architectural elements may embrace the heterogeneous approach, yet they are still symbolically fixed in the habits of homogeneity.

This rejection of the standard can be understood, once again, by examining William Blake's philosophy as analysed in Northrop Frye's book *Fearful Symmetries*. Blake espoused a radical alternative to classifying individuals into types, as codified during the taxonomic revolution of the European Enlightenment. Frye demonstrates how Blake's philosophy, revealed in his poems, celebrated the atomised and un-abstractable nature of every individual's sense perception. As Frye clarifies: 'There is no "general nature," therefore nothing is real beyond the imaginary patterns men make of reality, and hence there are exactly as many kinds of reality as there are men.'[29]

Blake loathed abstract concepts and saw them as lesser symbols of reality, meant for convenience and understanding, but without potency – a severe pale reduction of actual lived experience: 'The abstract reasoner attempts to give independent reality to the qualities of the things he sees, and in the same way he tries to abstract the quality of his perception.'[30] The flaws of typological classification are found in the ways that abstraction oversimplifies reality: 'A generalizing law permits of no exceptions, but everything that lives is an exception to it.'[31] This line of thought concerns the useful but ultimately provisional quality of a standardised classification of all things.

These seemingly esoteric musings from Blake are elaborated further in late twentieth-century post-structuralism. Michel Foucault – a historian of ideas widely considered to be a post-structuralist philosopher – in his book *The Order of Things* convincingly cast doubt on the efficacy of the taxonomic classification of species concocted by their Enlightenment-era creators: 'Consequently, our divisions into species and classes "are purely nominal;" they represent no more than "means relative to our needs and to the limitations of our knowledge."'[32] Gilles Deleuze, in his difficult book *Difference and Repetition*, interrogates the concept of repetition and, thereby, the idea of the standard, using dialectics to disrupt inherited assumptions and to acclimate others toward a radical subjectivity: 'Does not the paradox of repetition lie in the fact that one can speak of repetition only by virtue of the change or difference that it introduces into the mind which contemplates it?'[33]

This may be considered a semantic argument, but this modality of thinking can also help dislodge our assumptions of the standard, the archetype, the taxonomic and the typological (all popular topics in architectural theory). These categories and abstractions are a narrative tool useful for conceptual digestion, not reflections of objective reality.

Ironically, even though this twenty-first century epistemic shift embraces the unique qualities of each individual, the lobbying efforts of prefabricated façade panel manufacturers and other proprietary systems of construction have all but straitjacketed the construction industry in America and thus codified a new architectural vernacular aesthetic. Deviations from these systems are discouraged through financial and warranty penalties – punishment will follow if a product is not installed according to precise instructions. Zoning and building codes, intended for public well-being, are also shaped by the aggressive efforts of construction lobbies that embed these standards into practice and make non-standardised methods financially prohibitive or illegal. This has resulted in an aesthetic homogenisation across

Fig.3: Typical contemporary American vernacular building. Photo: author.

the United States. One can go to any city in the country and find the new vernacular of panelled buildings. [Fig. 3] Ironically, these standardised systems are camouflaged in a cloak of heterogeneity by applying a superficial mixture of textures, materials, and colours to their facades. The mass of these panelised buildings are broken down by popping their facades in and out and adding protruding bays, giving them the appearance of an improvised urban bricolage. The formal heterogeneity expresses the post-standard expectations of the twenty-first century, but this is a mask for the most inflexible construction industry in history, prioritising cheap construction over sustainability and fast fashion over resilience.

There are countercurrents to this paradoxical status quo: non-standard thinking challenges the necessity of precision. Precision in architecture reached its apex in the twentieth century through the idea of a perfected material craft (naturally an outcome of innovations developed during the Industrial Revolution). By default, this characterised imprecise architecture as clumsy and ugly. The Lo-T.E.K. (Traditional Ecological Knowledge) movement counters this thinking. It reaches back to well-worn construction strategies from all over the globe that use traditional indigenous methods to implement sustainable and non-specialised building practices. The movement seeks a future that abandons the extractive practices of colonisation and industrialisation. Julia Watson's book LO-TEK has popularised these global techniques for a Western audience. She states: 'Designers today understand the urgency of reducing humanity's negative environmental impact, yet perpetuate the same mythology that relies on exploiting nature.'[34]

In this direction, Trillium Dell in Illinois, is a timber construction company founded by Rick Collins in 1995.[35] The practice is an excellent example of a post-standard ethos in construction. Their work touts rule-of-thumb wood construction techniques that reach back over four thousand years. Instead of hiring construction engineers to create complex calculations for loads, Trillium Dell uses ancient knowledge of wood's nominal load and performance tolerances. They eschew standardisation for specialisation based on context and the unique qualities of the timber used on each job. They combine old and new materials, soft and hardwood, common and uncommon species, hybrid and wood dowel-based systems, and pride themselves on non-proprietary assembly methods. Although their practice is currently bespoke and expensive in relation to typical construction, their ethos could revolutionise the construction industry and wrest it from the hands of specialised commodity and skill-hoarding industries that prioritise profits over collective continuance. This softening of standards and precisions is a harbinger of a softer pragmatic movement that challenges some of the hardened but illusory hierarchies in the twenty-first century and destabilises our inherited generic classifications of the world.

Soft methods

In *Anatomy of Criticism,* Northrop Frye says that his book 'attacks no method of criticism … what it attacks are the barriers between the methods. These barriers … make a critic confine himself to a single method of criticism, which is unnecessary'.[36] Soft pragmatism is an attempt to define this sentiment within architectural theory. It is not a philosophy or a clearly delineated methodology; it is more a change agent that, when added, may enrich the many diverse bodies of architectural theory and can liberate thinking from perennially emergent orthodoxies. It is a method of self-consciousness and self-reflexivity, seeking the fuller shapes of the 'sedimentations of discourse.' It does not assume, offhand, a hierarchy of focus within a topic, and it does not try to establish new hierarchies. It benefits from the layered histories of literary theory and from its experimentation with style, structure, language, or typeface. Soft pragmatism also benefits from a multi-scalar analysis of a given topic, from the nanomaterial to its precedented scale to the celestial scales. It also benefits from a multi-modal approach – empirical, metaphysical, Marxist or phenomenological – and seeks linkages from other disciplines that add more texture and definition to a topic.

In a soft pragmatic sense, the prize jury at the start of this essay could have chosen a winner based on the project that engaged with the most modalities, disciplines, historical backgrounds, scales, and the project whose creators were the most self-aware and self-reflexive of their limitations and the limitations of their project. Without a consistent criterion for appraising the content of the projects, this other method would analyse them from a multi-structural evaluation of the fullness of their exploration in an ever-expanding theoretical field, favouring a broad scope over a narrow one, exuberance over restraint.[37]

The wilderness

In the end, soft pragmatism promotes self-consciousness, which is akin to doubt. It welcomes contradictions and complicates clear appraisals. As I am putting the finishing touches on this essay during the first months of Donald Trump's new term in the White House, while he is openly fighting with the Danish government about Greenland, while he is terrorising immigrants, while he is stripping protections from those that are non-white heterosexual males, while he is attempting to gut the checks and balances that would prevent an oligarchical takeover of a democracy, I am cast into doubt, wondering if my conclusions seem quaint, a relic of a privileged time that has already passed, where the existential theorists' charges of 'affirmative

instrumentality' and 'collective continuance' are no longer debatable, but are essential to prevent mass suffering in a world that is wobbling off its axis. In its service to deeper thinking, theory only exists within the stability afforded by civilisation; it does not exist in a state of barbarity. What are the works that we will do in this wilderness?

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Notes

Epigraph: William Blake, 'The Laocoön', in *The Complete Poetry and Prose of William Blake,* ed. David V. Erdman (New York: Anchor Books, 1988.), 274.

1. Also common in architectural theory, i.e. 'architectural imaginaries,' which refer to contemporary paper projects designed to conjure a possible future that transcends neo-colonial patterns of extraction and exploitation. Caroline Levine, *The Activist Humanist: Form and Method in the Climate Crisis* (Princeton: Princeton University Press, 2023), 6–7.
2. Ibid., 12.
3. Alfred North Whitehead, *Process and Reality* (New York: The Free Press, 1985), 337.
4. Ibid.
5. Timothy Morton, in the introduction to his book on the subject, states that a hyperobject, such as global warming, 'involve[s] profoundly different temporalities than the human-scale ones we are used to'. Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press, 2013), 1.
6. 'If anything, the e-book market seems to be hurtling toward the demise many predicted for the printed book back in the fall of 2007.' Mallory Williamson, 'The Life and Death of the E-Reader', Business Today, 25 January 2019, https://journal.businesstoday.org/bt-online/2019/the-life-and-death-of-the-e-reader.
7. Nick Roll, 'A Schism in Medieval Studies, for All to See', Inside Higher Ed., 19 September 2017, https://insidehighered.com/news/2017/09/19/one-professors-critique-another-divides-medieval-studies.
8. Peter A. Zusi, 'The Style of the Present: Karel Tiege on Constructivism and Poetism,' *Representations 88* (Fall 2005): 102.
9. Vittorio Pizzigoni and Michelangelo Sabatino, eds., *Mies in His Own Words: Complete Writings, Speeches, and Interviews 1922–1969* (Berlin: DOM Publishers, 2024), 52.
10. Dietrich Neumann, *Mies van der Rohe* (New Haven: Yale University Press, 2024), 110.
11. Ibid.
12. Rowe's essay is more complicated than this framing and serves as an early takedown of the International Style. Colin Rowe, *The Mathematics of the Ideal Villa* (Cambridge, MA: MIT Press, 1987), 119–37.
13. As Colin Davies states: 'The whole point of it was that buildings should be direct functional and material adaptations of the human habitat. What they looked like was irrelevant.' Colin Davies, *A New History of Modern Architecture* (London: Laurence King Publishing, 2017), 277.
14. Roemer Van Toorn, 'No More Dreams? The Passion for Reality in Recent Dutch Architecture and Its Limitations', in *The New Architectural Pragmatism,* ed. William S. Saunders *(*Minneapolis: University of Minnesota Press, 2007), 60.

15. Addison Lathers, 'Millions Spent, but No Homes Built. What Happened to Iowa's Big Plans for 3D-Printed Homes?', The Des Moines Register, 13 June 2024, https://desmoinesregister.com/story/money/business/development/2024/06/12/climate-proves-a-major-challenge-for-building-3d-printed-homes-in-iowa-alquist-ieda/72869302007/.
16. Catherine Ingraham, *Architecture's Theory (*Cambridge, MA: MIT Press, 2023), 21.
17. Ibid., 77.
18. Julia Wright, 'The Medium, the Message and the Line in William Blake's *Laocoön*', *Mosaic: An Interdisciplinary Critical Journal* 33, no. 2 (2000): 102.
19. Ibid., 118.
20. Northrop Frye, *Anatomy of Criticism: Four Essays* (Princeton: Princeton University Press, 1957)*,* 50.
21. Ibid.*,* 87.
22. Ibid.*,* 20.
23. Pragmatism is a word ripe with historical meaning and is loaded with its own philosophical frameworks. Here, I do not use the word in that context, but merely in terms of the dictionary definition of 'pragmatic': 'relating to matters of fact or practical affairs often to the exclusion of intellectual or artistic matters.' *Merriam-Webster Dictionary*, 'pragmatic', accessed 26 January 2025, https://merriam-webster.com/dictionary/pragmatic.
24. Another practical way to strive for a more expanded scope of theory might be for more journals to publish open calls for papers, to counterbalance the tendency in journals today to choose prohibitively specific topics of inquiry.
25. For the standard of this standard way of thinking, see: Le Corbusier, *Toward an Architecture*, trans. John Goodman (Los Angeles: Getty Research Institute, 2007 [1923]).
26. 'The mass [man] was fashioned according to the law of standardization, a law dictated by the functional nature of the machine.' Romano Guardini, *The End of the Modern World* (Wilmington, DE: ISI Books, 1998), 59.
27. This movement was also conceptually fuelled by Deleuze's post-structuralist book *The Fold.* Gilles Deleuze, *The Fold: Leibniz and the Baroque*, trans. Tom Conley (Minneapolis: University of Minnesota Press, 1992).
28. It would be difficult to abandon useful generic categories completely, but this takes that concept of the standard human and expands the definition by absorbing many contingencies previously ignored. In other words, the phrase 'one size fits all' is transformed into 'many sizes fit many.'
29. Northrop Frye, *Fearful Symmetry: A Study of William Blake (*Princeton: Princeton University Press, 1947), 19.
30. There isn't space in this essay to relate how Blake uses this perspective to ironically cultivate a whole new set of mythical archetypes. Frye, *Fearful Symmetry*, 20.
31. Ibid., 64.
32. Michel Foucault, *The Order of Things: The Archaeology of the Human Sciences* (New York: Vintage Books, 1994), 147.
33. Gilles Deleuze, *Difference and Repetition,* trans. Paul Patton (New York: Columbia University Press, 1994), 70.
34. Julia Watson, *LO-TEK: Design by Radical Indigenism* (Cologne: Taschen, 2020), 397.
35. Trillium Dell website, https://trilliumdell.com/, accessed 31 August 2024.
36. Frye, *Anatomy of Criticism*, 341.
37. To quote Blake: 'Exuberance is Beauty'. 'The Marriage of Heaven and Hell.' Blake, *The Complete Poetry and Prose of William Blake,* 38.

Biography

Andrew Gleeson is an associate teaching professor of architecture at Iowa State University. He has a Bachelor's degree from Iowa State University and a Master of Architecture from Harvard University. Andrew has worked in Chicago at JAHN (formerly Murphy/Jahn) and at the New York City office of Foster + Partners. He has been previously published in the ACSA, JSAH, CTBUH, Architecture + Film Journal, and Iowa Architect Magazine.

Epistemic Horizons: Embracing Tacit Understanding and Generative Potential in the Appraisal of Knowledge

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Abstract
This article explores the appraisal of knowledge in architecture and its role in shaping architectural thought, design and production. Building on Michael Polanyi's concept of tacit knowledge – knowing more than we can tell – the article proposes to address the challenge of assessing such knowledge by the appraisal of its generative potential. I argue that tacit knowledge can be valued by the possibilities it creates within specific social and material environments. Through an interdisciplinary approach, incorporating insights from cognitive psychology, anthropology and information theory, three modes of comprehension are identified – correspondence, adaptation and poetic. Emphasising the interplay of knowledge, cognition, and imagination, I propose that knowledge should be appraised based on its generative potential, rather than merely codified information. Architectural knowledge, exemplified in the work of Eduard van Steenbergen, is evaluated from a capacity to 'objectify abstract space' – that is, by how it gives substance to spatial ideas, notions and qualities – and manipulate spatial relations, integrating skill, knowledge and agency. Opening up new avenues for epistemological inquiry within architectural research, I invite scholars to reconsider their approaches to knowledge appraisal and to embrace a broader, yet more precise understanding of knowledge production in the discipline.

Keywords
Epistemology, tacit knowledge, architectural knowledge

One Sentence Summary
Drawing from a reflection on the methodology of knowledge appraisal, this article suggests that architectural knowledge can be understood as a capacity to materialise abstract spatial relations into meaningful representations.

An important question in any piece of architectural research is how its outcomes can be beneficial to architectural thought, design and production. This question exposes the underlying problem of how knowledge can be recognised and valued, an endeavour that is especially challenging in regard to tacit ways of knowing. First described as such by Hungarian chemist and philosopher Michael Polanyi, tacit knowledge is the form of knowing that is not or cannot be made explicit. It is the knowledge reflected in the fact that 'we know more than we can tell'.[1] Appraisal of this form of knowledge is complex because its justification – a fundamental requirement for the appraisal of knowledge in classical epistemological studies – is not straightforward. This article addresses the problem of how tacit knowledge can be accessed and tested. It develops the hypothesis that tacit knowledge can be appraised by focusing on

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what it makes possible in a particular social and material environment.

To construct this interpretation, I first confront classical propositions of epistemology and information theory when confronted with the question of knowledge appraisal. In contrast to the modes of assessment based on information theory, I argue that knowledge, cognition and imagination are interdependent and can only be appraised in conjunction. Developing this argument, I examine the process of knowledge acquisition, focusing on the interplay between information-processing and the formation of knowledge, and outlining three distinct modes of comprehension: correspondence, adaptation and poetic. The first mode, correspondence, reflects a utilitarian approach to knowledge acquisition, characterised by analytical reasoning and pattern recognition. The second mode, adaptation, enables the integration of novel insights and the refinement of existing knowledge structures. Finally, I expose the importance of imagination as a foundational element in the formation of knowledge, as a process that allows for the generation of new conceptual possibilities. Pushing forward the relationship between knowledge and imagination, I argue that the requirement for justification expressed in classical epistemology can be found not only in communicable, codified modes of information transfer. Rather, it is in the directionality of knowledge that the justification of the tacit must be pursued, through the exploration of the poetic rationalisation of information that configures a generative potential – what knowledge makes possible.

Drawing on forms of knowledge appraisal centred on its outputs – in which metrics such as patents and process improvements are used as proxies for knowledge – I argue that knowledge can be understood as the foundation of these ranges of possibilities, or *epistemic horizons*, that reflect the conditions of existence for practice and discourse within a sociocultural environment. Based on this analysis, in the final section I propose that architectural knowledge can be appraised by its potential to objectify abstract space, exposing the ranges of possibility explored in the architectural sketches of Belgian architect Eduard van Steenbergen. I conclude that design can be understood as a method of manipulating spatial relations in a virtual materiality, embodying the networks of skill, knowledge and agency in the production of architecture.

The question of knowledge appraisal

Dating back to Plato, epistemology has generally regarded knowledge as 'justified true belief'.[2] For a person to know a proposition, the proposition itself must be true, the person must believe in its validity and the person's belief must be justified. The idea is deeply associated with the pursuit of truth, but it also proposes that in spite of being (and in order to be considered as) true, knowledge also needs to be justified as such. The implication is that knowledge is inherently linked to a methodological dimension – that is, knowledge needs to be accessible in one way or another. Disregarding, for the moment, the never-ending philosophical problems of truth, the justification side of knowledge may be a good starting point for analysis.

The necessity for knowledge to be justified is associated with the historical development of epistemology, located in the foundation of modern science, implying a concept of knowledge as a 'secured, methodically acquired and communicable insight'.[3] This correlation between knowledge and science is commonplace in modern thought, but despite their intimate relationship, it can be misleading to confuse the two terms. The uncritical acceptance of technoscience can foster a simplistic understanding that knowledge has an intrinsic 'epistemic character'; that is, that knowledge can only, or primarily be achieved through scientific means (mostly mistranslated as mathematical or quantitative methods), to the detriment of the arts and philosophy, for example – a notion known as 'scientism' and heavily criticised by Friedrich Hayek.[45] The assumption that knowledge can only be obtained through science is controversial. The practice of science is a situated endeavour and, as such, its outcomes are often permeated with biases that reproduce dominant or oppressive discourses in the guise of a neutral rationale, as in the case of standardised intelligence testing, which keeps on reproducing its eugenic origins even now.[6] Moreover, the question presents a fundamental paradox in the definition of knowledge itself. The belief that science is the only legitimate claimant to knowledge, based on science being the sole means of justifying true belief, would require treating science as the means to its own legitimation.

The confusion between science and knowledge has old roots that can be traced in the etymological history of the terms. The old meaning of science varies greatly from its contemporary use: from the Latin *scientia,* which literally meant 'knowledge', in the fourteenth and fifteenth centuries the term ceased to represent every knowledge, designating instead a particular 'branch or body of learning'[7]. The meaning of the word narrowed further, often appearing as a synonym for 'art' until the seventeenth century.[8] From this period on, the term 'science' began referring to skills more related to theoretical knowledge, designating the methods and observations that provided 'demonstrative proof in an argument'.[9] The continued development in this direction, Raymond Williams suggests, is deeply related to the distinction between 'experience and experiment' that

was made in the eighteenth century, establishing a specialisation in the understanding of science that excluded 'many other areas of knowledge and learning'.[10] In the nineteenth century, science began to be confused, once more, with multiple bodies of knowledge, in a movement 'where a particular and highly successful model of neutral methodical observer and external object of study became generalized, not only as science, but as *fact* and *truth* and *reason*'.[11] Science thus became both the justification and truth that supports knowledge and, as such, the entirety of its objective dimension. Once again, science and knowledge were conflated. But this time, rather being than represented by it, knowledge was limited by this particular interpretation of science, and other forms of knowing were disqualified.

While this confusion between science and knowledge seems to still survive,[12] a more contemporary definition of science, found in the Cambridge dictionary, suggests a more methodological relation: '(knowledge from) the careful study of the structure and behaviour of the physical world, especially by watching, measuring, and doing experiments, and the development of theories to describe the results of these activities.'[13] In turn, knowledge appears as the 'understanding of or information about a subject that you get by experience or study, either known by one person or by people generally', and 'the state of knowing about or being familiar with something'.[14] On the one hand, this description implies that knowledge can be obtained by the same means available to science, namely experience, which can be read in both the quotidian and laboratory meanings (more precisely divided into experience and experiment, mentioned above). On the other hand, it refers to information, which, in its dictionary description, appears as 'facts about a situation, person, event, etc.', implying a direct link to a concrete dimension.[15] In this line, the dictionary description of knowledge, albeit not explaining much in terms of the processes or the quality of knowledge, highlights its relationship with something external, to which the knower is related, indicating a directionality in knowledge. Knowing is knowing something. This directionality can provide a better distinction between knowledge and science, and some principles for their assessment. Justification, from this perspective, can be seen as the correlation between the something that is known and its existence, measured by its observability; science, in turn, can be seen as a validation model to assess how reliable knowledge (or a way of acquiring knowledge) is, in terms of its observation in reality.

Moreover, the link between knowledge and objective reality seems to be based on information, a relationship studied by the sociologist of science Harry Collins. Trying to clarify the distinction between tacit and explicit knowledge, Collins devises an overarching conceptual metaphor of knowledge as 'strings of information'.[16] These strings can be understood as sequences of organised information that allow it to be understood and, therefore, applied. In Collins's view, knowledge involves the transfer of 'the ability to accomplish new tasks', and can be interpreted as the utilitarian semiotic content of information, the part of information that humans can understand and apply.[17]

While Collins abstains from the appraisal of knowledge, limiting his analysis to the identification of knowledge's potential for explication, Daniele Fanelli tries to address the question from a similar interpretation of knowledge, but with a radically different approach. Echoing Collins's argumentation, where justification follows the premise that knowledge is the compression of information by the creation of 'patterns', Fanelli proposes the development of a mathematical formula to appraise knowledge.[18] In his equations he seeks to quantify knowledge, considering the level of change performed in information and the overall use of this information to qualify a particular explanation or theory.

Fanelli's attempt is significant, but presents problems. His description of the value of theoretical knowledge concludes with this statement: 'the value of a theory is inversely related to its complexity and directly related to the frequency of its use'.[19] It is a questionable claim. His formulation disregards the difference in subjects addressed by theories that are valued in relation to one another. Fanelli is aware of the question, and he tries to provide an answer: 'Given two theorems addressing different questions, in the more general case, the difference in knowledge yield will depend on the lengths of the respective proofs as well as the number of computations that each theorem allows to be spared.'[20] However, it seems as a weak argument that the length of the formula can be directly associated with the extent of the given explanation. These are not easily quantifiable variables – often short explanations are dependent on more lengthy knowledge, such as codes or mathematical principles, and gauging the extent of explanation some knowledge provides is a difficult endeavour. Fanelli's premise creates situations in which the evaluation of knowledge becomes purely speculative, which, conversely, undermines the enterprise of fitting the question in a mathematical equation. Another problem arises if one deals with knowledge that cannot be fully (or practically) translated into computations because the resulting explanation would be too long.[21] This form of knowledge would, in Fanelli's view, be the least valuable of all, simply because of its length, regardless of its contribution to society or its power to explain concrete reality.

Collins and Fanelli offer important contributions to the development of a method for the appraisal of knowledge, but they lack stronger a consideration of the social

properties of knowledge, in the sense that treating knowledge as a collection of information units or computations reduces knowledge to a simplistic numeric quantity that, by some other operation, provides explanation. This operation, for the authors, is performed by information. But by itself information is not knowledge; 'the mere provision of information holds no guarantee of knowledge, let alone of understanding', as Tim Ingold reminds us.[22] Relying heavily on information theory, authors like Collins and Fanelli blur the boundary between knowledge and information. Knowledge implies the rationalisation of information – thus it requires the capacity to associate, to extrapolate (particularly important for architectural knowledge), and to predict, which, in Fanelli's terms, is an ability to compare a given set of information with previously acquired information and come up with a probability of results.[23]

The poetic imperative of knowing

Fanelli's notion of prediction is still limited: it doesn't explain how information is compared to prior knowledge or the magnitude of this operation, much less the possibilities for extrapolation. In any case, from Fanelli's proposition of newly given and previously acquired information, it is possible to devise some conditions for the formation of knowledge. These conditions can be used to describe a crude, minimal standard process of information rationalisation to describe the acquisition of knowledge. They are:

a) The most basic form of meaningful information rationalisation imaginable is a simple correspondence between the new data and a previously existent categorical framework or, to use Collins's terms, 'patterns'.[24] When the case is a simple comparison, which seems to be Fanelli's general understanding of how knowledge comes to be, the patterns are previously established, and only then are they projected on the new context. The processing of information, in such a case, can be thought as an equation – it takes previously formed patterns and examines the new information through them, fitting the recognisable features of the new context into the slots of the given variables. The result is twofold: on the one hand, there is the association of new information with previously existing patterns; on the other, there is a by-product of unprocessed information. In other words, in this first model, any data that does not fit the existing categories is ignored – the process through which information is analysed is addressed only insofar as problems are solvable by the first set of patterns.

b) Another scenario takes place whenever the new set of information also changes the patterns itself, meaning that the new information is not only compared with the given patterns, but adds on to them in a process of adaptation. One example of adaptation would be that, after information is processed in accordance to simple correspondence, the remaining, problematic information which does not fit the existing categories is processed to create new categories. The result is simple: the creation of new patterns. Alternatively, information can be processed by reviewing formerly used patterns, in order to make them useful for addressing the missing analysis. In other words, the second model proposes a process of categorical shift in which already patterned information is organised in a different way: the knower's categorical database is not just expanded, but also changed.

c) Finally, a meaningful attempt at addressing how information can be rationalised into knowledge must take into account the possibility to extrapolate, which is so common in human cognition and can be referred to as the poetic. It can be thought as a process similar to adaptation, but implying a situation in which the new information operates on the patterns a fundamental shift. In this case, the new information is assessed and the patterns are actualised beyond what is necessary to explain the new data, generating new possibilities of association and affecting their underlying logics. In comparison with the previous operation, the new information is not only used to review the patterns previously formed, but to reconstruct (partially or fully) the logic of their formation, changing the very rationale behind the patterning process. In other words, it changes the rules of classification and categorisation behind the acquisition and organisation of information, effectively creating new modes of understanding.

The combination of these three processes describes a spectrum of information processing operations that can sufficiently explain most instances of ordinary learning. At one end of this spectrum is a direct and utilitarian operation, requiring little adaptation of established patterns. This mode could be called analytical, and it produces a way to navigate the world according to previously acquired knowledge but with little change to its underlying logic. An example of this is the process of learning of a new word in a familiar language. While it involves a simple case of placing the word within previously existing categories, such as noun, verb or adjective; the addition of a new word also implies a new way of representing a given situation, and it carries etymological and ordinary connections that associate its signifier with different categories, objects or actions. At the other end of the spectrum there is a mode of comprehension that effects a deeper change. In this operation, one incorporates new information and develops new insights from them, allowing for the assessment of previously acquired information through newly structured patterns that may improve or change the existing explanation. This mode might be called a developmental process, because it entails not only the acquisition of information, but a change in the pattern structure or, in other words, in

the methods of navigating the world. An example would be learning a new language, with its grammatical and semantic particularities that allow for a radical new way of representing the desired situation and the construction of meaning. A middle term between these two modes of apprehension probably describes the most common experience of learning and processing new information.

The poetic process, on this spectrum, plays a reflexive role that could explain the process of how new patterns are created: through the rejection of previous associations and hierarchies, it allows the development of a multiplicity of 'points of view', as described by Paul Feyerabend, as an operation where the possibility to associate different pieces of information is multiplied in an exponential growth of possibilities.[25] In this sense, this mode of apprehension relates to *poiesis*, the emergent process of coming into being of things that did not exist before, 'a process of creation' through which 'one becomes the other'.[26] By lifting limitations and suspending previously acquired patterns, and reducing the rigidity of the phenomena of the world, the poetic process raises the complexity of possible relations, and allows the thinker to scope different associations. It can be thought of as the capacity to play with information and categories and, in opposition to Fanelli's claims, to decompress information. The poetic process increases knowledge potential by crossing and merging patterns, contrasting different rationalities – followed by a process of rematching new patterns within reality, reduced and repositioned in their concrete context: 'grooming' patterns back to the directionality of knowledge.

The process could be seen as analogous to working of dreams. Current theories of the function of dreams propose that, during sleep, free from the dangerous reality of the physical world, the brain processes the information acquired when awake, not by fitting it neatly where it is best accounted for, but by purposefully creating new situations.[27] By venturing outside the reasonable, dreams test the limits of the possible. In this theory, dreams are irrational by design but, counterintuitively, represent a process of rationalisation.

Therefore, the workings of the poetic model may describe the leap from information to knowledge, explaining how new information is related to old, and how it proceeds to form an expansive understanding of the world. Knowledge formation thus requires abduction, the ability to proliferate and foresee. In other words, the imaginative side of knowledge acquisition is not simply a rationalisation of information towards a probable answer, but also the expansion towards possible configurations, creating a horizon of possibility.

Ranges of possibility

The overall picture of how to appraise architectural knowledge seems clearer, but still challenging. Knowledge and learning are somewhat clarified in terms of their conditions and operation, but remain difficult to measure. Therefore, another approach might be useful: to appraise knowledge in business, Paul Eisenberg suggests using metrics such as the number of patents, new models of products, services and the like – focusing on pragmatic outputs and avoiding the confusion between science, knowledge and information.[28] From these pragmatic outputs, he argues that it is possible to construct a picture of how information is being used, which in turn gives an outline of the knowledge involved. While limited in its potential to differentiate the parts with a properly epistemic character among the many aspects of production, Eisenberg's method presents a concrete (or at least pragmatic) way of appraising knowledge, with a clear advantage: it looks at knowledge from a situated position. It does not evaluate forms of knowledge by their scientific adaptability, but, instead, by their influence on real, complex environments.

Taking advantage of Eisenberg's method, it is possible to construct a model for the appraisal of knowledge in the framework of architectural research and practice. My proposition is that architectural knowledge can be recognised, qualified and valued by what it makes possible. This operation requires understanding knowledge by the principle that characterises the mind as 'a second-order or recursive structure' that is 'oriented toward the virtual rather than simply toward the real', as described by Merleau-Ponty.[29] That is, in this interpretation, knowledge is understood as the rationalisation of information that makes something possible – the combination and organisation of information through the reflexive movement of the imagination, in response to the perceived environment, which is directed towards the creation of a virtuality, a potential. Knowledge is thus not a thing to be possessed, or a substance embodied in bits, but a relation of significance that proposes a virtual development, in line with Bateson's information imperative of making a 'difference'.[30] This development can be an ideal fact, like a mathematical truth, or a physical, material object, like a chair. The shapes identified as objects, the movements made to perform an action, the association between phenomena and sensations; all these are informative of the world and constituent of its virtuality: what it might be. Knowledge, as such, is present in both the way the world is understood and acted upon.

Since my proposition is that it is possible to appraise (and understand) knowledge by the generative potential it can operate (knowledge's associated range of possibility), it accords with Collins's understanding of knowledge as always related to praxis, but with a fundamental difference:

it considers more than just the immediate consequence of knowledge and whether it is justifiable, but also its potential as a new realm of possibility. This difference can be better understood, perhaps, by using one of his examples: the baker and the bread-making machine.[31] Collins argues that the knowledge in the bread-baking machine is equivalent to that of the baker, because it yields the same result, bread. For Collins, therefore, the baker's knowledge is encapsulated in the machine and, as such, baker and bread-machine have the same knowledge. What Collins fails to account for is that the baker's knowledge, which allows him to make the same bread as the machine, because of its poetic potential, is much broader than that of his mechanical competitor. In theory, there could be machines that encompass all the possible breads that the baker can make, but still they would fail to compare to the baker because their knowledge is static. These machines would be limited to their own productions, to what figures in their technical repertoire, and so, the knowledge they possess as a collective will always be limited to that potential, equal to the sum of their individual products. Bakers, on the other hand, without needing new information, can cross-reference their knowledge and get a different result – for example, experimenting with croissant dough in the shape of a doughnut in the invention of the cronut.[32]

This is what Merleau-Ponty describes as a process of 'coherent deformation', a tentative disruption of available significations, distorted to reveal new potential.[33] The operation requires imagination, and it exemplifies the need to consider the poetic mode of apprehension as a parcel of knowing. The knowledge possessed by the baker, precisely because of its breadth and adjacencies, allows this form of multiplicity, and thus the range of his possibility is greater than that of the combined machines. It is worth mentioning that, indeed, this capacity seems to be challenged in the case of the newly developed generative artificial intelligence, which can cross-reference knowledge. The AI's process is a statistical operation that, for the moment, stems from human prompts. Whether it can actually replicate the baker's *poiesis* remains to be seen, but in any case, the AI would represent a fundamental shift from Collins's collection of bread-making machines.

The focus on the relationship between knowledge and the potential it brings forth also helps avoid a problem of justification pointed out by Aileen Oeberst and her team in a paper reassessing what knowledge is.[34] The authors argue that in classical epistemological studies, knowledge is conceived as something that is localised in individuals, and, therefore, knowledge must be justified at the individual level. The individualist nature of this concept of knowledge, especially in regards to its justification, creates problems, for example, 'when considering mass collaboration and education' as 'the requirement for individual justification might not be met for each person involved'. In areas where collaboration is commonplace, for example, in the realm of science, where 'knowledge resulting from the project can hardly be attributed to only one person', the problem becomes evident.[35]

If the justification of knowledge can be found in the context of its social application, knowledge doesn't need to be incorporated in one individual to be operative. As long as it increases the potential of a particular phenomenon, knowledge can be considered to be real. Networks of agents with different sets of information or partial knowledge can therefore be seen, in cooperation, as the holders of a larger body of knowledge. If the organisation of these agents allows for a new potential, whether a new concept, a new product or a new way of doing something, it can be considered, as constituting new knowledge. This collective knowledge can be recognised in practices that are institutionalised under a profession or discipline, like architecture, and it is carried forth within the relationship between its practitioners.

Finally, in this proposition, justification can be realised through indirect examinations, related to the social use of knowledge and its implications. Knowledge can be justified by an assessment of its effect, possible employment and conditions of use. This way of appraising knowledge does not fixate the idea of truth. In this notion, truth is only important in relation to the proposed potential of knowledge: how much and under which circumstances knowledge affords possibilities. Therefore, my approach does not demand that knowledge be scientific. Science appears as a method, rather than a premise: science is understood not as a measure of the validity of knowledge, but of its generality, its scope and reproducibility under varying circumstances. Alternatively, this mode of appraisal makes it possible to accept artistic methods as knowledge, and can be used to explore what different ways of thinking and making make possible. In Feyerabend's words, it does not propose 'only one correct point of view'.[36]

The appraisal of architectural knowledge

Following the mode of knowledge appraisal by its generative potential, it is possible to analyse the methods, techniques and processes used in architectural design, addressing how they develop possibilities within the field and, consequently, expose the particular knowledge of architecture. In other words, it is possible to appraise the knowledge of architecture by accessing what design does.

In this direction, Peter Schmid, writing about professional know-how, argues that an architectural tool – a sketch, for example – allows architects to engage a particular spatial configuration:

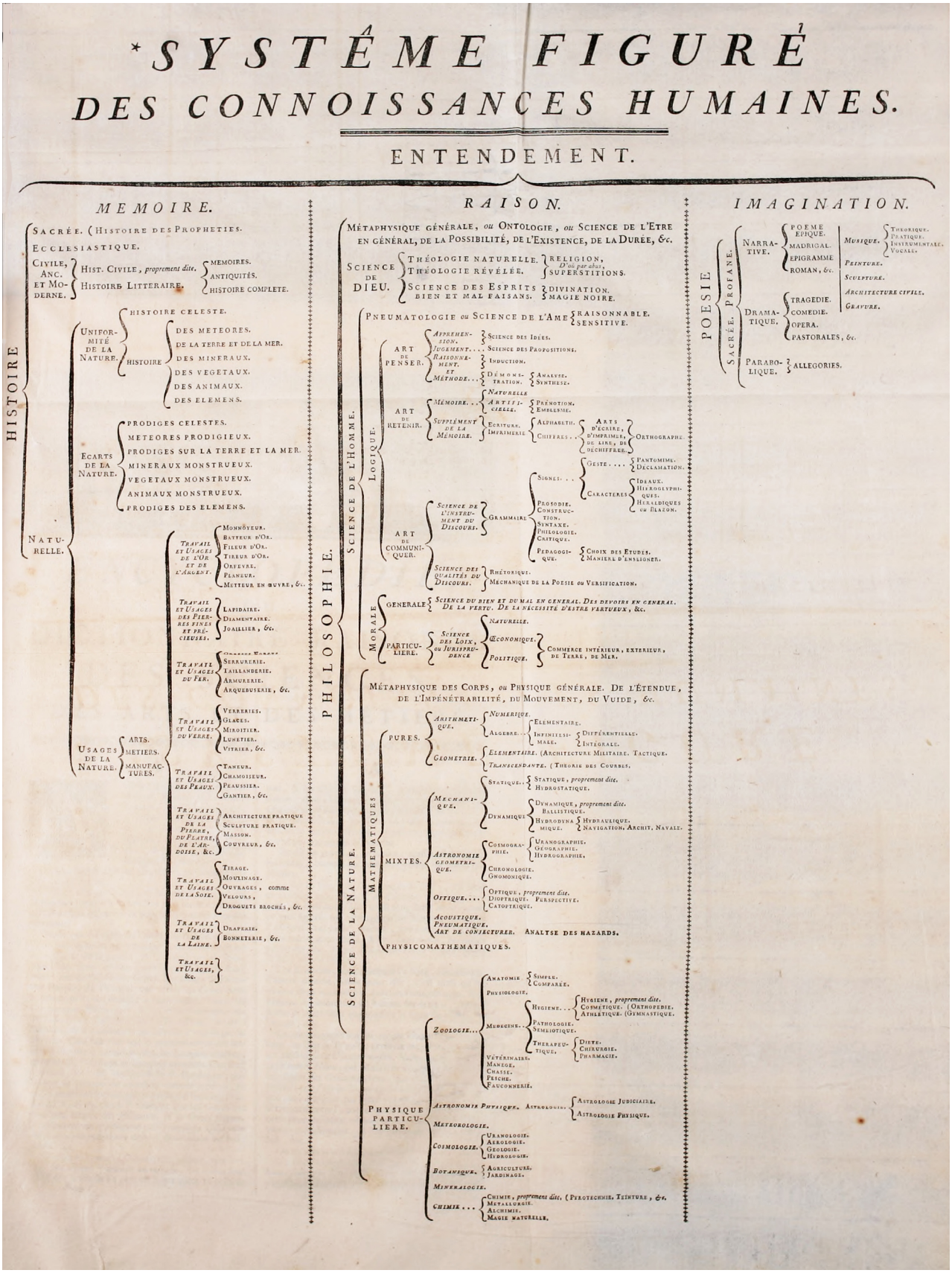


Fig. 1: The separation of knowledge, or 'understanding' (*entendement*) in Diderot's *Encyclopédie*.

> Regardless of the external form, whether analogue or digital, the ability to sketch spatial situations is a fundamental requirement for creative work in architecture. The processes that take place during the development of spatial ideas in drawings are procedures which, in the case of practicing architects, mature into schematic experiences, or, in other words, into a "procedure know-how" that is difficult for outsiders to understand or comprehend.[37]

This is possible because, from the mind to paper, ideas become less ephemeral and more stable. They no longer depend on the immediate focus of the architect to exist, which frees their makers to address other questions, and add complexity to the project. Questions of dimensions, boundaries, flows and interaction between material elements and environments can be assessed by drawing a floor plan, for example, aiding architects as they imagine possible solutions. In other words, by being sketched, ideas acquire a degree of reality. When they are externalised from the mind, it becomes possible to objectively engage with them. They are, as it were, objectified.

The reiterative nature of this process is well known in architectural design studios, and can be easily seen in archival collections.[38] In this sense, to appraise the knowledge of architectural design, it is worth analysing how sketching and drawing enable a range of possibility. Held at the archives of the *Vlaams Architectuurinstituut,* the collection of Belgian architect Eduard van Steenbergen (1889–1952) provides a telling example: vast and comprehensive, it includes a great number of sketches, giving a good idea of the role of sketching and drawing throughout the design process.

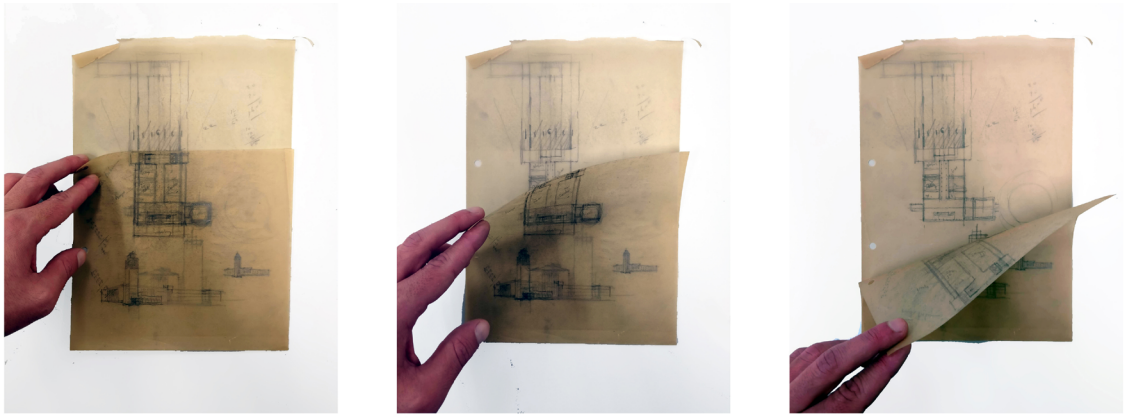
Steenbergen seems to be the kind of person that was always drawing. For the Districthuis in Deurne he sketched profusely in all kinds of formats, in keeping with the stereotypical architect drawing on a napkin. Plans, perspectives and technical details of the Districthuis are drawn on a high-grammage, green-tinted paper carrying the logo of the Excelsior Hotel in Antwerp, on the back of a flyer inviting people to a *Gymkhana* in Berchem, and even on a page ripped from an appointment diary, marking 1 January. [39] Partially, this abundance can be attributed to overdesign, the practice of designing and overseeing all or most elements of architectural production, common among architects of the art nouveau movement such as Antoni Gaudí and Victor Horta. The scope of Steenbergen's work included the detailed design of ornaments, furnishings and furniture. However, most of his sketches are repetitive and very similar, suggesting that the architect used them primarily as a way to explore different spatial organisations and architectural compositions. Through repetition, Steenbergen slowly built up difference, working iteratively and incrementally.

The materiality of the drawing material itself contributed to this practice of reiterative transformation. Benefitting from the transparency of tracing paper, for example, van Steenbergen would fold drawings over each other, trying out subtle changes and variations in the floorplan. [Fig. 2] In other sketches, he progressed through ideas alternating between pencil and pen, as if solidifying the solutions that pleased his judgement, and demonstrating awareness of the potentials afforded by the not-quite-permanent quality of sketches, and the differences in contrast between graphite and ink. [Fig. 3] Particularly interesting in this practice is the increasing level of detail added to the drawing, while the scale remains the same. Progressively, one sees the appearance of windows, furniture, fixtures and even the silhouettes of people, enhancing the realism of the sketch. Besides improving the representation of the project's proportions, these increases in detail show Steenbergen's tentative exploration of particular drawing scales (1:50, 1:100 etc.), working to the limits of resolution and making the most of his material.

Alongside the increasing detail there is a shift in scale. This strategy allowed the architect to work simultaneously on the part and the whole, and is mostly used to address details, as in the Districthuis's tower, while keeping in sight the detail's context. [Fig. 4] It can be seen as a way of imparting to the details the sort of autonomous quality that Eduard Ford describes: of being something valuable and distinguishable in itself without losing the connection to the unity of the building.[40]

Finally, Steenbergen's sketches also display the use of different modes of drawing in tandem. [Fig. 5] Plans, perspectives and sections are often sketched together on the same sheet of paper, providing an overview of the project and reflecting how changes to one particular aspect (for example, the spatial organisation) impacts the whole. In this way, Steenbergen could test different things simultaneously, moving across structural, spatial and aesthetic considerations and imparting diverse sets of knowledge in the design process.

It is possible to see from these few examples how sketching allows the architect to maintain multiple concerns of the design's virtual reality in the background while finding his way in the problem as a whole – or the other way around, allowing for particular solutions to be developed directly in relation to the overall design. Moving between diverse scales and modes of representation, the iterative development of the sketch produces a 'tentative outline of a form that is … being deliberately distorted or deformed to reveal some previously unrealized potential'.[41] This process can be understood as an instance of abduction, that



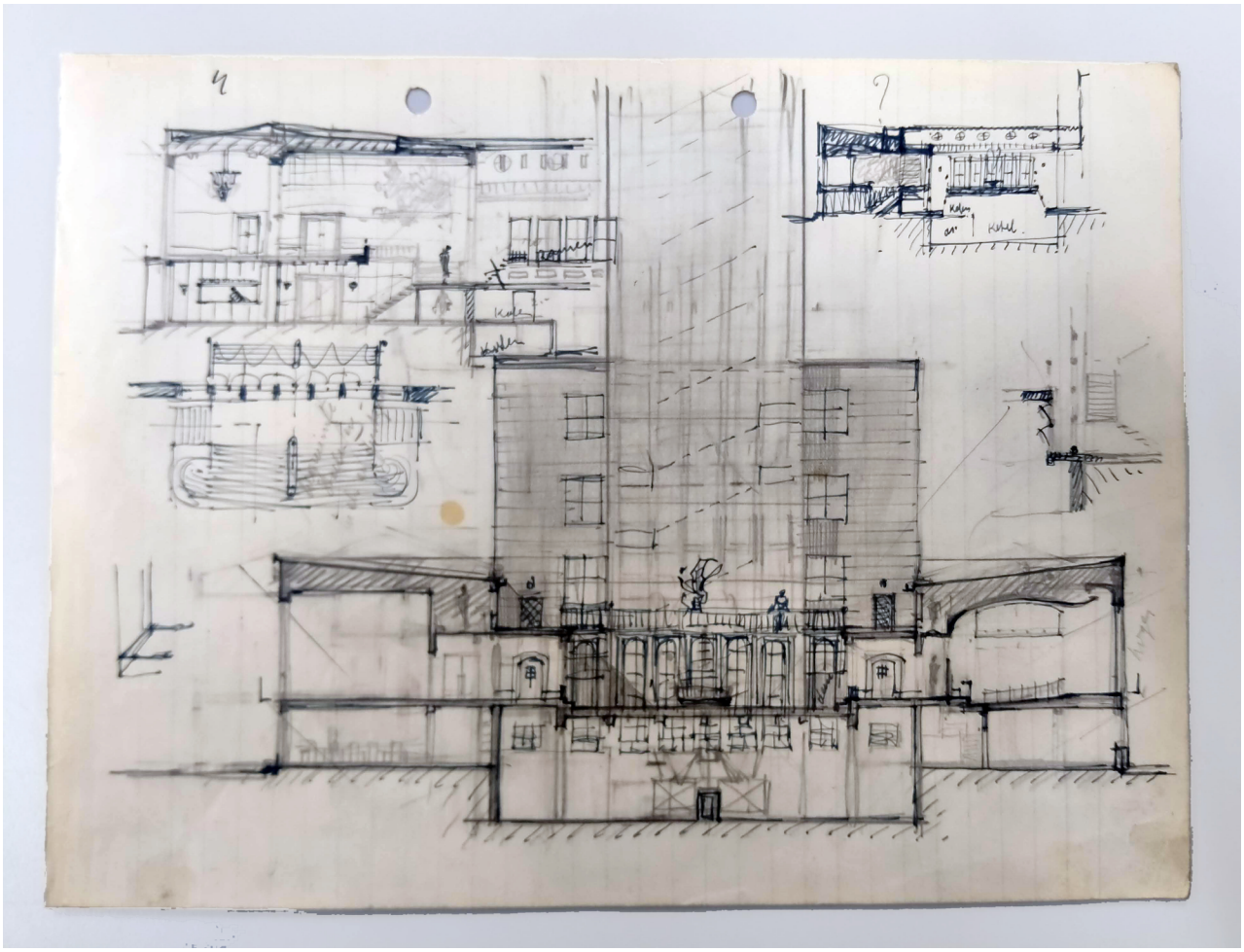


Fig. 2: Eduard van Steenbergen, overlapping sketches. Source: VAi.

Fig. 3: Eduard van Steenbergen, graphite and ink sketch. Source: VAi.

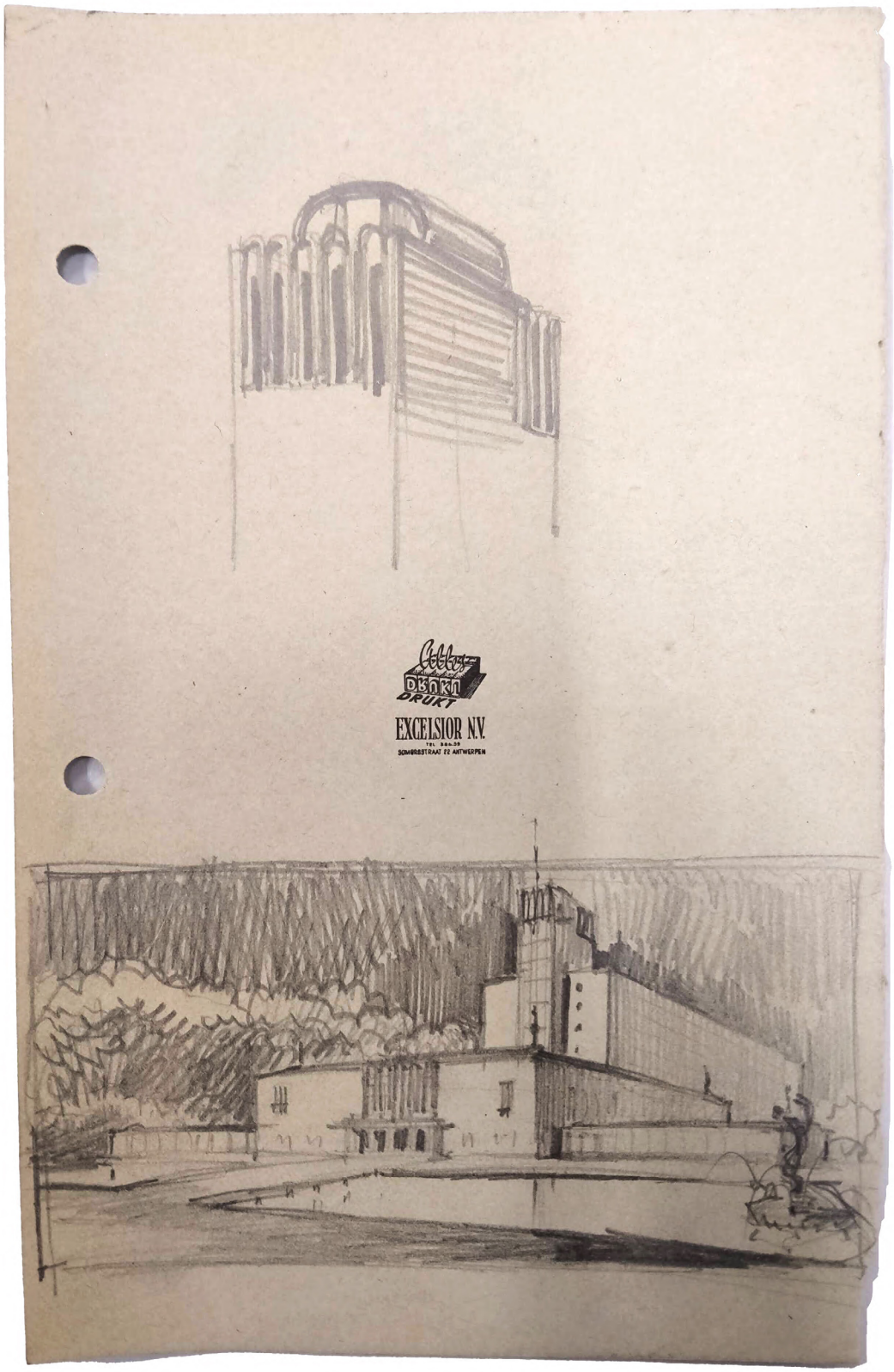


Fig. 4: Eduard van Steenbergen, detail and building perspectives depicting the Districthuis Deurne. Source: VAi.

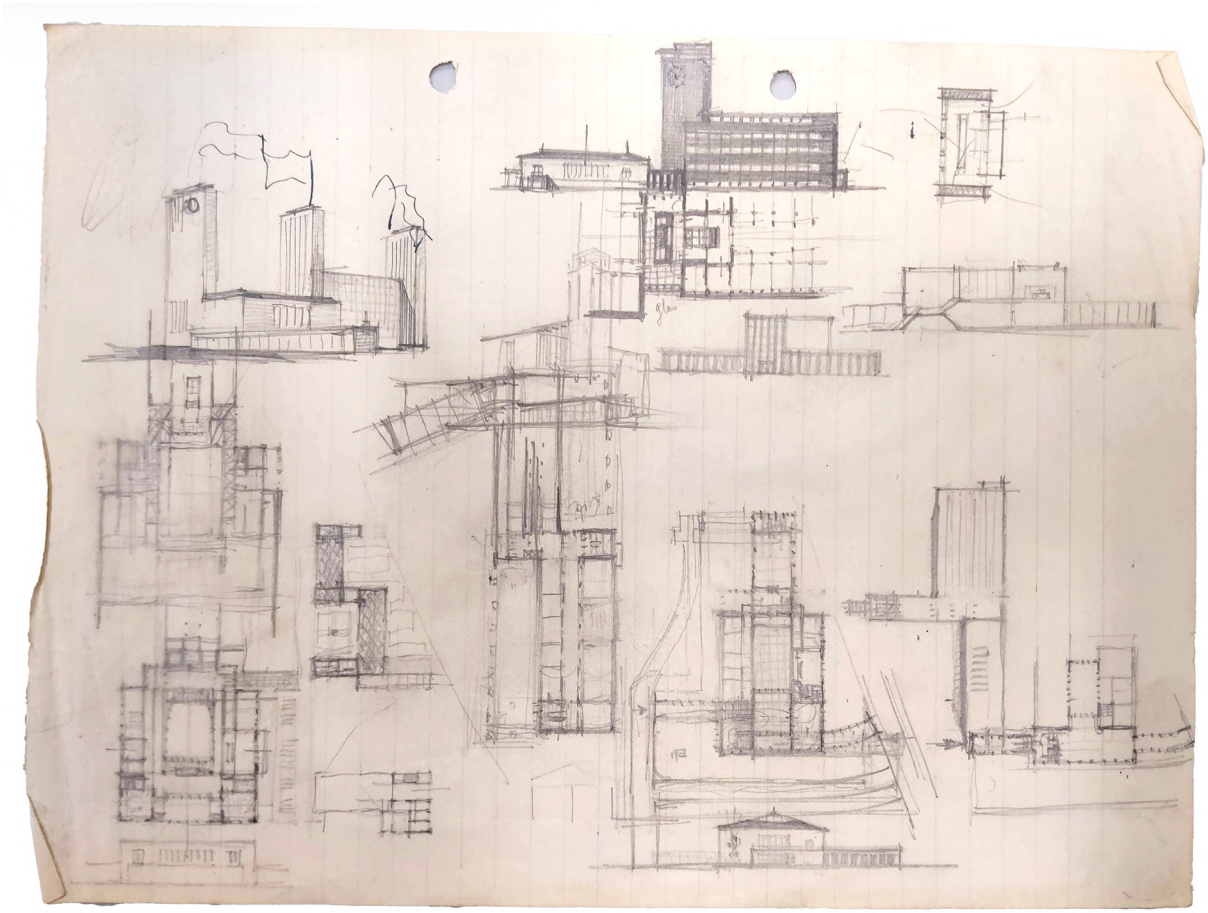


Fig. 5: Eduard van Steenbergen, sketches of the Districthuis Deurne. Source: VAi.

is, an operation where architects reach towards a solution through incremental leaps of inference – or as in the poetic process of understanding described above, as a form of imaginative proliferation from which solutions are teased into emergence. In any case, the process of sketching can be seen as a form of rationalising information, establishing knowledge by the clarification of a range of possibilities. From the engagement with this virtual, latent reality objectified in the sketch, designers can enact processes that simultaneously gather and rationalise information. In other words, they establish an epistemic horizon and, therefore, knowledge.

> The design drawing offers a freedom to the architect to engage in a more radical level of invention. By providing a safe way of simulating and testing of new solutions – without the expense of building at full-size to find out how it might actually work – the drawing provides a realm of exploration and experiment that would otherwise be unavailable.[42]

Sketching, evidently, is not the only tool architects have at their disposal. From the development of perspectival drawings in the Renaissance, through the plaster casts of the Beaux Arts model of education, to modelling (both physically and digitally), the history of the architecture profession is populated by many practices that can be analysed under similar terms.[43] They allow architects to explore, in a tentative way, many aspects of the spatial-material configuration of the built environment, manipulating the dimensions, materials and elements in the form and substance of buildings. These connections, or 'leaps of associations made between materially engaged things and abstract ideas of architectural order and space', in the words of Christopher Bardt, establish the common ground within which disparate concerns can be addressed in a single problem, as Donald Schön would phrase it.[44] They bring 'architecture into a symbiosis of language-like, symbolic and as physical experience' that is tacit in nature.[45] While not problematic for designers themselves, this tacit character makes the task of appraising architectural knowledge difficult.

Somewhat counterintuitively, however, these associations can be seen when drawings did not suffice – where the range of possibility of architectural knowledge has to be addressed in some other way. Besides enabling the creative practice of sketching, architectural drawings carry knowledge across disciplinary boundaries, operating as communication devices and helping designers to realise ideas across diverse communities of practice, in contact with, for example, engineers, contractors and other specialists. Not seldom, however, technical drawings alone prove insufficient to convey the whole complexity of design between different professionals. Particularly, there are two instances in Steenbergen's collection in which it is possible to see how the architect dealt with such limitations with the help of writing.

In the first case, the architect was designing a gravestone for the Van Den Berghe de Decker couple.[46] In addition to the more traditional drawings usual in architecture, in the corner there is a set of instructions for the craftspeople – quite remarkable because, unlike the common project descriptions in architectural designs, they don't refer only to the materials, but also to the actual processes of making – giving instructions, for example, of how the stones should be polished and their corners rounded. [Fig. 6] Translated to English, the message reads:

> Upper plate and columns in blue limestone, best quality. The edge of the plate is polished, as well as the top with edges and inscription. The background is to be deeply sandblasted and then very finely and evenly pointed. The columns are smoothly polished. Everything must be assembled firmly.
> The component is to be covered with glazed plaques.
> All on a reinforced concrete foundation.
> Additionally, a concrete vault for two coffins.
> The price should include delivery and execution, as well as delivery time and payment terms. Samples of plaques and the type of sandblasting to be seen at the architect's office.
> 5 October
> Ed. Van Steenbergen[47]

Less grim in character, the second instance is a wardrobe design for the Kolonielaan house.[48] In this drawing, besides assigning a specific place for each item of clothing – somewhat mimicking the overdesign approach criticised by Adolf Loos in *Poor Little Rich Man* – Steenbergen once again adds instructions for its construction on the paper sheet.[49] Organised in bullet points, these instructions focus primarily on the materials to be employed, providing insight into the architect's particular knowledge, for example, assigning the use of a zinc tray specifically for snowshoes.

These examples are significant because, occurring at the interface between design and production, they show the boundaries of the knowledge performed by different tools, revealing the limits of their employment. These documents serve as witnesses to the range of possibilities practiced by architects and the knowledge of their particular methods. From Steenbergen's accompanying writings, one can grasp some of the knowledge the architect had about materials and their specific productions processes. Conversely, it is also possible to recognise in them the stonemasons' and woodworkers' knowledge, represented by their capacity to interpret the drawing and text, but most importantly, by inferring what remained unwritten. Understanding the limitations of technical drawings and

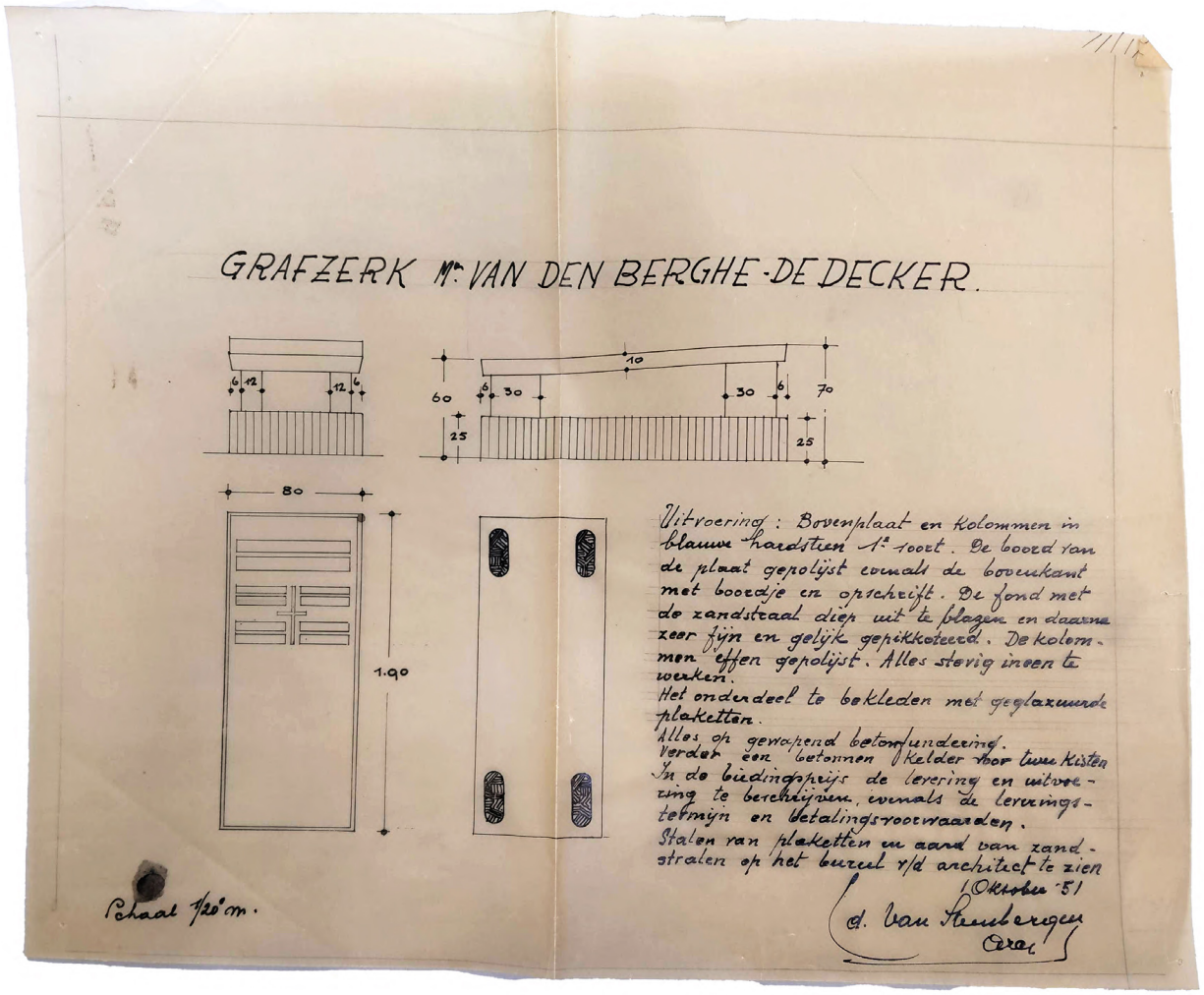


Fig. 6: Eduard van Steenbergen, gravestone design with instructions. Source: VAi.

representations with regard to the exact material qualities and processes of the depicted objects, it is possible to envision how much of the gap between idea and reality is addressed in the workshop or at the construction site by craftspeople. Both by what they represent and what is left silent, these drawings mark the flow of information across communities of practice, showcasing how a productive arrangement – such as the network of professionals mobilised for the design and construction of a building – produces and performs knowledge. Coalesced in the technical drawings, the information of architectural solutions is transmitted to contractors who associate it with their skills, inferring the particular operations that allow for an idea to become a material reality. Effectively providing a concrete solution to an abstract, spatial challenge, from sketch to site, the design and construction process form a system through which problems and possibilities can be known, developed and built.

The method of knowledge appraisal by the assessment of its generative potential shows that architectural tools afford a particular kind of practice and skill. They are mostly related to the conception of spaces and their objective form and substance, but also function as communication devices in the disciplinary networks of the construction site. These tools operate a particular knowledge, establishing a specific range of possibility: they help architects close the gap between various spatial possibilities and the material conditions of architectural production. In other words, these tools allow architects to perform their practice in the objective world, and characterise it as a form of knowledge.

Conclusion

The conflation of science and knowledge creates a tendency to overlook the complexities inherent in knowledge production and validation, perpetuating a narrow form of knowledge appraisal. The consequences can be seen in the work of Harry Collins and Daniele Fanelli: from Collins's metaphor of knowledge as strings of information to Fanelli's mathematical formulas, information-based modes of knowledge appraisal overlook the poetic nature of knowledge and ultimately fail to provide a method that encompasses tacit knowledge.

The focus on the generative potential of knowledge allows for a form of knowledge appraisal that does not need a mental disposition, a belief, and its connection to an unattainable truth to be recognised. Instead, it latches knowledge in practice, in the crossover between real and virtual. By considering knowledge in terms of its potential to generate new phenomena or practices, this form of knowledge appraisal avoids a fixation on truth and scientific validation. It opens avenues for understanding diverse forms of knowledge across cultures and communities of practice, and acknowledges the context-dependent nature of knowledge.

This model of appraisal allows a direct way to recognise, in architecture, the networks of knowledge in the production of design, and clarify the relationship between architects and their tools. Through this lens, design processes can be understood simultaneously as tools that allow architects to deal with the specific qualities of their craft, making them explicit and ready to hand, and as epistemic artefacts embodying the translation of technical, theoretical and aesthetic domains into spatial and constructive languages. In short, the tools of architectural design express a kind of knowledge with a broad horizon, as it is directly related to a poetic, imaginative pursuit of simulated possibilities, but also refers to the capacity to materialise these ideas.

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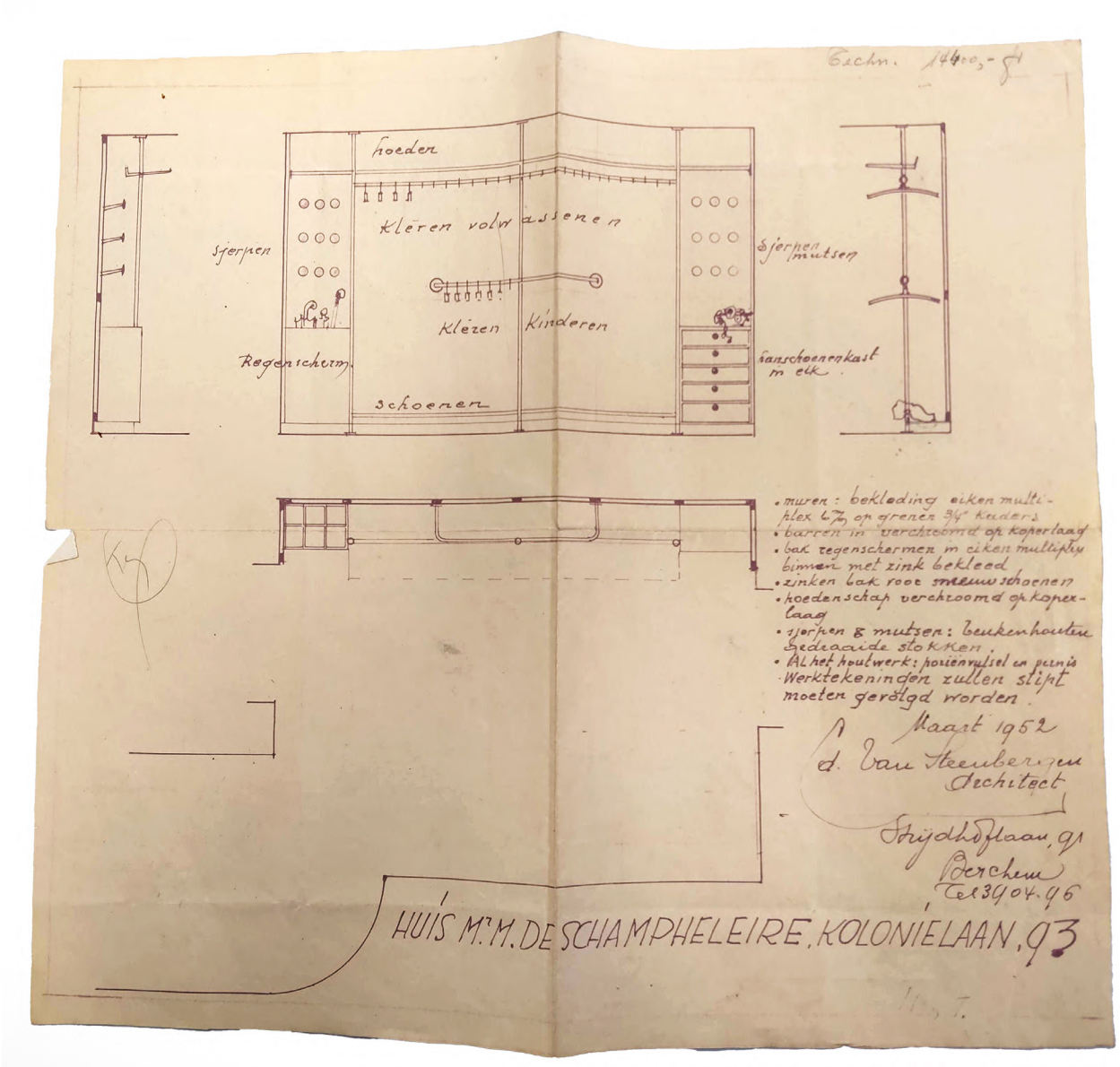

Fig. 7: Eduard van Steenbergen, design of a wardrobe with instructions. Source: VAi.

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Biography

Dr. Eric Crevels is a Dutch-Brazilian architect, urban planner and craftsman whose work focuses on material cultures and the intersection of craft and architecture, investigating the built environment from the perspective of labour, skill and technique. His research bridges architectural design and construction studies with anthropology, sociology, and philosophy, creating new connections between theory and practice. Dr. Crevels is committed to exploring the ways craftsmanship can inform contemporary architectural design, production, research and history, by developing new approaches, methods, and tools. His work aims to expand the understanding of how labour, craftsmanship, and architectural creation intersect, offering fresh perspectives on the design and production of the built environment.

The Anxiety of Appraisal

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Abstract
The starting point of this article is the struggle to articulate concrete hypotheses and questions regarding the appraisal of theory. I argue that the growth of knowledge, in architecture as in science, is closely associated with the anxiety to appraise our theories. Referring to Slavoj Žižek's reading of German Idealism, I suggest that appraisal does not occur because our theories are imperfect, but is grounded instead on a fundamental lack in reality itself. To overcome that lack, theories fabricate models, which are artificial conceptions of architecture that block any direct access to what might be called 'the real of architecture'. The limit which is generated from that lack, takes its creative power in Aldo Rossi's theoretical work on the architecture of the city. Here, architecture theory performs its ontological role to complete the cracked reality of the city. The article concludes with the observation that appraisal is a perpetual retroactive operation, immanent in formulating theories and reformulating them into series of theories.

Keywords
Anxiety, choice, lack, limited rationality, invisible remainder

One Sentence Summary
The article argues that architectural knowledge grows from an inherent lack in human rationality to fully grasp reality; theories work to complete this cracked reality with models which we appraise.

The form of theory

Theory comes from the Greek noun theōria, rooted in the verb horáō: to see, to observe. In its earliest senses, the term points to the action of viewing (theōros means 'the spectator'; 'theatre' shares the same root). In ancient Greece, theōries were official delegations sent by one city-state to another to attend a festival or a game – the eyes of the state. Eventually the term came to describe attempts to explain phenomena, aiming at the growth of knowledge. Interestingly enough, although the origins of theory refer to the action of seeing, the term corresponds better to the discursive process of articulating something that stems from the realm of ideas. (The word 'idea' shares the same root as 'theory': the Greek 'idea' means 'the form, the look of a thing', from the Proto-Indo-European root weyd-, 'to see' and 'to know'). It appears that the emergence of theory assumes that the things we sense cannot be described directly; we need to theorise them in advance.

That process of theorising is closely related to the way philosophy developed especially after Kant – sense certainty cannot be accurate: we base our knowledge on

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sets of hypotheses or conjectures we make according to our observations. Knowledge on a matter has to do with representing it in a systematic way. However, the term 'theory' refers also to 'a belief, policy, or procedure proposed or followed as the basis of action', a definition that corresponds better to how we commonly use 'theory' in architecture.[1] For example, Vitruvius's *De architectura* or Le Corbusier's *Five Points of Modern Architecture* operate as theories that give the world of architecture the principles according to which the profession should set its course of action – how reality should be shaped. Of course, they are conjectures, but they are presented as future-oriented axioms; they do not aim at explaining and gaining knowledge but at creating. Touching upon this, Stanford Anderson has noted: 'The architect is involved in making his own reality as well as his theory… this new reality may serve as the fulfilment of the theory rather than as its empirical constraint.'[2] Here, it is architecture practice, the construction of reality that materialises theory and turns it into a visible material object. Theory, Anderson implies, can be ahead of practice.

To sum up, a distinction can be made between a retroactive interpretative theory of architecture, which emerges after the architectural object, and a theory of architecture that functions as the presupposed rational framework of practice. In this sense, we can differentiate between theories that interpret material reality and those that actively shape it – a distinction that parallels knowledge acquired through experience and knowledge assumed to exist in advance. Building on the issues raised by the editors of this issue of *Footprint* regarding the rationality of architectural decisions, two key questions arise: first, how does one assess and choose between different interpretations of architecture – what makes one more accurate than another? Second, how do architects navigate and select among alternative possible realities in their creative process?

In this article I consider architectural theory not as a description of architecture but as an active intervention in it. Put differently, the idea of a good theory – one that describes the object of architecture in its essence or reveals a hidden concept behind architecture form – is considered irrelevant, because such an approach would frame the given architecture in a single fixed, correct understanding, denying any further growth of knowledge on the matter. Instead, I emphasise the moment of reflexivity embodied in the act of theorising and its appraisal. The argument is primarily developed along the line that runs through German idealism with a particular focus on Slavoj Žižek's interpretation of Hegel, Kant and Schelling. Architecture theory is comprised of narratives; they are mostly texts, ways of presenting or understanding the reality of space and architecture, but they operate outside of it.[3] They push beyond the experience of the physical world of architecture and aim at alternative realities; in that sense, German idealism can provide a proper framework for making our case. Hegel's words from his lectures on the *Philosophy of History* outline how a narrative may sublate its subject: 'In the Peloponnesian War, the struggle was essentially between Athens and Sparta. Thucydides has left us the history of the greater part of it, and his immortal work is the absolute gain which humanity has derived from that contest.'[4]

The history of the Peloponnesian war sublates the war's immediate reality, that is, the facts, instituting the narrative of the war rather than the war itself as the important event in human history. An 'ideological narrativization of our experience and activity', in Žižek's words. The event does not appear to us immaculate, but it always brings an excess – the story in storytelling – which is what we eventually keep.[5]

In Lacan's psychoanalytic theory the real, or what is perceived as such, is described as what resists symbolisation absolutely.[6] It is what cannot be fully articulated, captured or processed through language or representation: a raw, unstructured state that has no gaps or lacks. In Lacan's view, once the subject acquires language and symbolic structures, they are forever alienated from the real, considering that language always structures reality imperfectly. Within this context, I will argue that theories are originally bad. This is the paradox of the form of theory: architecture theories are texts, narratives that discuss, explain, make claims about architecture. Yet, as linguistic constructs, they fabricate an artificial, consistent totality on architecture by blocking any direct access to the real of architecture.

Such a position belongs to what the philosopher Levi Bryant calls the hegemonic fallacy, that is, 'beings are hegemonized under the signifier or language… the hegemon of the hegemonic fallacy thus functions like an active form giving structure or formatting a passive, structureless matter'.[7] Still, when discussing architecture theories and their appraisals, one unavoidably falls into that fallacy, since by definition theories speak about physical objects using language or other symbolic formations such as diagrams, models and drawings. In fact, the hegemonic fallacy could be considered a precondition for a theory to exist and function. Whether we talk about a single theory, or series of theories, their appraisal is grounded on that fallacy, that is, the power the symbolic and the imaginary exert over architecture.

A pervert's guide to knowledge

Ian Hacking and Richard Rorty, two philosophers of science who promote experimentation over theory, would wonder why we should aim for the most accurate explanation in the first place.[8] According to both of them, philosophy must keep the conversation going, rather than aiming at the 'objective truth'.[9] Seeing philosophy of science from a historicist perspective, Rorty follows Thomas Kuhn's idea that truth is not universal but it is a result of discourse. Scientific theories cannot mirror nature, because they are products of human practice and hence they will always be infected. Regardless of one's position in relation to historicism, what matters is not to refute the possibility of the most accurate description of nature, but the work one does towards that, what Rorty describes as 'the infinite strive for truth'.[10] Rorty gives Jean-Paul Sartre credit for seeing 'the attempt to gain objective knowledge of the world, and thus of oneself, as an attempt to avoid the responsibility for choosing one's project'.[11] What is important is not whether one makes the right or the wrong choice, or to evaluate a theory as bad or good, but choice itself. The existence and obligation of choice is a precondition for the growth of knowledge. Sartre in his work *Being and Nothingness* repeatedly says that 'being [and freedom] is condemned to be free'.[12] One is responsible for the world and for one's way of being.[13]

Freedom is to be understood here in F.W.J. Schelling's sense, 'as the capacity for good and evil', that is, not one's power to determine oneself independently of any external limitations, but as Žižek in his book on Schelling has put it, 'it concerns the most concrete experience of the tension within a living, acting and suffering person between Good and Evil – there is no actual freedom without an unbearable anxiety'.[14] This may offer a brief response to the questions raised by the editors of this issue of *Footprint* regarding how we demarcate between theories. The process of differentiating between good and bad theories is driven by an underlying anxiety that precedes appraisal, serving as a foundational and preconditional characteristic of knowledge and its way forward. Conversely, we can argue that the existence of choice is based on the lack of objective knowledge and truth. In other words, it is the lack of objectivity that makes knowledge possible in the first place. According to Sartre:

> The very meaning of knowledge is what it is not and is not what it is; for in order to know being such as it is, it would be necessary to be that being. But there is this 'such as it is' only because I am not the being which I know; and if I should become it, then the 'such as it is' would vanish and could no longer even be thought.[15]

Therefore, the competition between theories may not be taken as a problem to be solved but as the ontological structure of knowledge and its way forward. This brings us to the Hegelian reading of reality as cracked and contradictory. In Immanuel Kant's *Critique of the Pure Reason* the limits of reason appear when sense-certainty runs into contradictions, into antinomies.[16] Departing from that, Hegel argues that precisely this failure of choice, this failure of knowledge corresponds to the level of the being; reality itself is antinomic. As Žižek remarks:

> For Hegel, the Idea of the State, say, is a problem, and each specific form of the state … simply proposes a solution, redefining the problem itself. The passage to the next "higher" stage of the dialectical process occurs precisely when, instead of continuing to search for a solution, we problematize the problem itself … A problem is thus not only "subjective"; not just epistemological, a problem for the subject who tries to solve it; it is *stricto sensu* ontological, inscribed into the thing itself: the structure of reality is "problematic".[17]

In terms of scientific knowledge, a similar argument has been developed by the philosopher of science Paul Feyerabend. He claimed that the way to knowledge is not through increasingly restricting the range of ideas we have about looking at the world while establishing a single point of view about the correct picture of reality. This aligns with Hegel's idea that the fear of error obscures the fear to encounter truth:

> If the fear of falling into error sets up a mistrust of science, which in the absence of such scruples gets on with the work itself, and actually cognizes something, it is hard to see why we should not turn round and mistrust this very mistrust. Should we not be concerned as to whether this fear of error is not just the error itself?[18]

Theoretical pluralism in this sense paves a path towards error; it 'is required both in order to strengthen our tests and in order to bring to light refuting facts that would otherwise remain inaccessible. The progress of science is unthinkable without it'.[19] By claiming this, Feyerabend illustrated that the proliferation of theories and theoretical pluralism is not just the method but the form of the body of science itself. Feyerabend succinctly states that the rationality of our decisions is formed by the internal contradictions of the scientific enterprise, by the freedom to choose between contradictory theories, not by any external parameters:

> Choice confronts the scientist even at the most trite step of his research and it cannot be replaced by any appeal to

> standards. One might call the omnipresence of this choice the "existential dimension" of research. The fact that there is such an existential dimension to every single action we carry out shows that rationalism is not an agency that forms an otherwise chaotic material, but is itself material to be formed by personal decisions. The questions "What shall we do? How shall we proceed? What rules shall we adopt? What standards are there to guide us?" however, are answered by saying: "You are grown up now, children, and so you have to find your own way."[20]

Feyerabend does not seem to care about how the individual will proceed with his or her research. The problem is transferred from the particular to the universal. The important thing is that science as a universal project of culture where truths proliferate.

Feyerabend's attitude towards a theoretical pluralism in science hints at what psychoanalysis describes as perversion. Žižek recalls that the classic version of a pervert is to openly actualise any repressed content. Perverts, thinking they are in direct contact with truth, are allowed to do anything, yet this permissiveness, this freedom, causes anxiety and impotence, the strongest possible repression.[21] 'Once I know too much, I am no longer in a position to accomplish the act.'[22] Attempting to overcome the repression of the single correct theory, Feyerabend proposed a model of excess that can be seen as the ultimate repression.

Proliferation and theoretical diversity go hand in hand with the anxiety to appraise. Anxiety, as defined by Jacques Lacan in his 1962–63 seminar on the theme, is structured on the lack of desire, the lack of lack, since 'desire is lack and we shall say that this flaw lies at the root of desire, in the sense of something that is missing'.[23] Lacan explains that the most anguishing experience for an infant occurs when the relationship that forms the foundation of his existence is disrupted. That foundation is based on the lack that turns him into desire, therefore 'this relationship is most disrupted when there's no possibility of any lack, when his mother is on his back all the while … Anxiety isn't about the loss of the object, but its presence.'[24]

Theoretical pluralism as it has been elaborated by Feyerabend contradicts lack. Feyerabend opposes the idea that a single scientific method or theory should dominate. Instead, growth takes place when different perspectives are allowed to develop and challenge existing paradigms. Advancements can emerge from the coexistence of competing theories, and Lacan's approach to anxiety can help us shape a psychoanalytic connection. What is missing from Feyerabend's model is the support provided by lack. Lack specifies which theory to desire. Lacan argues that although doubt is related to anxiety, 'anxiety is not doubt, anxiety is the cause of doubt … the effort the doubt expends is exerted merely to combat anxiety.'[25] An evident paradox is at work here: whereas the acute awareness of the multitude of theories triggers an inability to act, this turns into doubt as the effort to fight impotence. This certainty of doubt is what shapes the Cartesian subject of science.[26]

The limit in the given

My argument has been that evaluating theories is not about securing certainty for the future, but about cultivating doubt. It is precisely this uncertainty that drives knowledge forward, so that doubt becomes integral to the pursuit of rationality. This view is everywhere in Hegel's *Phenomenology of Spirit,* where truth is related to the labour of the scientist: 'knowledge … in order to become genuine knowledge, to beget the element of science … must travel a long way and work its passage'.[27] He continues: 'Truth is not a minted coin that can be given and pocketed ready-made.'[28]

Moreover, we must consider whether, when evaluating theories, we seek certainty, a definitive conclusion, or a guiding principle for the future. Or, perhaps, by emphasising the uncertainties within the field of architecture, the process of appraisal itself becomes the rational way to proceed. Therefore, the resolution of a conflict between theories should not be justified by its contribution to the progress of a scientific field, but rather viewed as the self-dissolution of the scientific community itself. In Hegel's view, while scientists occupy themselves with a project, in reality they are working on themselves. Explaining provides a sense of self-satisfaction because 'consciousness is, so to speak, communing directly with itself, enjoying only itself; although it seems to be busy with something else, it is in fact occupied only with itself.'[29]

Stanford Anderson suggested as early as 1971 that critiques of architecture's shortcomings in serving society's well-being should not be seen as a call to abandon architecture as a means of shaping our built environment. Instead, he viewed them as an appeal to continually refine and strengthen our imperfect rationality.[30] Anderson's claim here is Hegelian, namely that human rationality is expressed in the work of architecture. As mentioned above, for Hegel scientific work looks for subjectivity as it is being expressed out in the world:

> Consciousness *observes;* i.e. Reason wants to find and to have itself as existent object, as an object that is actually and sensuously present … Reason, therefore, in its observational activity, approaches things in the belief that it truly apprehends

> them as sensuous things opposite to the 'I'; but what it actually does, contradicts this belief, for it apprehends them *intellectually,* it transforms their sensuous being into *Notions,* i.e. into just that kind of being which is at the same time 'I', hence transforms thought into the form of being, or being into the form of thought; it maintains, in fact, that it is only as Notions that things have truth. Consciousness, in this observational activity, comes to know what *things* are; but *we* come to know what *consciousness itself* is.[31]

The idea that reconstruction happens through the lens of language is related to what Lacan describes as the symbolic function. We need language to outline a form, but Lacan teaches us that 'saying the whole truth is materially impossible: words fail. Yet it's through this very impossibility that the truth holds onto the real.'[32] What H.P. Lovecraft calls the indescribable 'thing' in his story *The Call of Cthulhu*: 'there is no language for such abysms of shrieking and immemorial lunacy, such eldritch contradictions of all matter, force, and cosmic order.' Cthulhu, the Thing itself, the real in its purest form, resists becoming part of our symbolic reality. But it is fundamental to understand that it is not Lovecraft who neglects to see the 'thing' that exists out there independent of our gaze; on the contrary, Lovecraft's narration retroactively produces Cthulhu as an irreducible gap in his articulation; the real is the by-product of the symbolic, and product of the imaginary.

In Lacanian terms, architecture, a practice of three-dimensional built forms, needs wordy articulations to make itself describable. While by doing so, it will never be fully grasped. Joan Copjec in her book *Read my Desire* explains:

> Painting, drawing, all forms of picture making are fundamentally graphic arts. And because signifiers are material, that is, because they are opaque rather than translucent, refer to other signifiers rather than directly to a signified, the field of vision is neither clear nor easily traversable. It is instead ambiguous and treacherous, full of traps.[33]

The fundamental trap is that we are not aware that 'beyond appearance there is nothing in itself; there is the gaze'.[34] In Hegel's words, 'It is manifest that behind the so-called curtain which is supposed to conceal the inner world, there is nothing to be seen unless we go behind it ourselves.'[35] Consequently, we enunciate theories that are secondary signifiers, supposing that we are grasping the given primary signifiers. Buildings are mistakenly thought to be signifiers, more than actual material forms; they function as surpluses. However, this illusion is fundamental, for it retroactively produces the lack of some 'substantial Real behind it' which must become accessible.[36] What then are Christo and Jeanne-Claude's famous wrapping projects if not both the acknowledgment and the demonstration of this illusion? The fundamental illusion is explained in what Žižek has called the parallax gap. Žižek takes this idea from the apparent shift in an object's position when viewed from different angles, and he radicalises it as the underlying antagonism within reality itself, 'which forever eludes the symbolic grasp, and thus causes the multiplicity of symbolic perspectives'.[37] By literally placing a curtain in front of a well-known building, Christo and Jeanne-Claude alter the obvious perception of it, they produce a lack, revealing that the substantial real was not hiding behind the appearance of the building, but the real is the appearance itself, which emerges only when hidden. Žižek notes:

> The appearance implies that there is something behind it which appears through it; it conceals a truth and by the same gesture gives a foreboding thereof, it simultaneously hides and reveals the essence behind its curtain. But what is hidden behind the phenomenal appearance? Precisely the fact that there is nothing to hide. What is concealed is that the very act of concealing conceals nothing.[38]

It is in this light that we can also understand modernist art and its sublime experience. Following the art critic Clement Greenberg, modernist art made the limit of representation its project. According to Greenberg, by orienting itself to the flatness of the canvas – the limitations that constitute the medium of painting – modernist painting is seen as a picture first rather than content in a picture.[39] Yet, adopting Žižek's interpretation of the Kantian sublime as something that fills the original void opened up by the inherent limitation of the 'nothing' represented in the symbolic, one could argue that the literal 'nothing' given in modernist painting is what has elevated it to the level of the 'Thing'.[40]

Let us take Villa Savoye, for example. It has been designated a World Heritage Site by Unesco not because of its positive attributes – an elevated white suburban house with free floor-plan standing on thin cylindrical columns. Rather, as emphasised in the criteria established by Unesco, the architectural objects designed by Le Corbusier signify for human consciousness a cultural move beyond the limits of the architectural objects:

> Criterion (i): The Architectural Work of Le Corbusier represents a masterpiece of human creative genius, providing an outstanding response to certain fundamental architectural and social challenges of the twentieth century. Criterion (ii) the

> architectural work of Le Corbusier exhibits an unprecedented interchange of human values, on a worldwide scale over half a century, in relation to the birth and development of the Modern Movement … Criterion (vi) the architectural work of Le Corbusier is directly and materially associated with ideas of the Modern Movement, of which the theories and works possessed outstanding universal significance in the twentieth century. The series represents a 'New Spirit' that reflects a synthesis of architecture, painting and sculpture.[41]

Unesco praises the theories and the works of modernism not because of their content, it does not praise the particular formal synthesis between walls, columns, windows, ramps, terraces and so on. Instead, it praises a 'New Spirit': humanity recognises its own presence within the work of architecture and celebrates itself. Villa Savoye and other modernist buildings that have been recognised as World Heritage Sites by Unesco, or have been appraised by the historiography of architecture, function as signifiers invested with meaning, but they are actually empty: the material leftovers of a bygone 'New Spirit', their symbolic overdetermination elevated them 'to the status of the impossible Thing.'[42]

Under these circumstances we can understand the anxiety of contemporary society about the restoration of monuments and the appraisal of buildings and cities. Copjec notes that anxiety appears as 'an affect aroused in reaction to an existence, to pure existence, without sense'.[43] Maybe this takes its architectural dimension in what Bernard Tschumi has called 'the meeting point of ideal and real space … the place where life touches death … the rotten place where spatial praxis meets mental constructs'.[44] Tschumi, in his book *Architecture and Disjunction*, has expounded upon modernity's anguish regarding the death implicit in decaying buildings.[45] In Tschumi's words, 'life was seen as a negation of death … a negation that went beyond the idea of death itself and extended to the rot of the putrefying flesh. Architecture reflected these deep feelings.'[46] The campaign to save the threatened purity of the derelict Villa Savoye after it was registered as historical monument in 1965 manifests a refusal to acknowledge the traces of decay in buildings.[47] But these traces, the mouldy marks of time on built form, are important to Tschumi, for they shape a place of transgression of an established paradigm by 'negating the form that society expects of it'.[48] In this sense, considering Žižek's hypothesis that the Titanic's tremendous impact stems from Europe's ideological investment in it, we could say that European reason could not stand the anxiety of experiencing its own death via the decay of the Villa Savoye.[49]

The symptom of the city

My purpose so far has been to show that appraisal serves as an exercise of human reason. The process of developing and appraising architectural theories is not confined solely to the discipline of architecture. It is part of a broader endeavour that reflects our ongoing attempt to navigate and extend the boundaries of our own rationality. The enunciation of a theory allows us to manage what might otherwise appear raw, chaotic or incomprehensible. This is one of the founding elements of German Idealism and Immanuel Kant's transcendental philosophy. Kant raised the question regarding the application of 'pure concepts of the understanding [such as causality, space and time] to appearances'.[50] He proposed a 'mediating pure (without anything empirical) yet intellectual representation called the transcendental schema', which is in itself a product of the imagination and relates the concepts of pure understanding with objects, thus with significance.[51] Following Kant, Hegel suggested that before we intervene in reality, we must first conceptualise it; we must take it as our own product:

> Action *qua* actualization is thus the pure form of will - the simple conversion of a reality that merely *is* into a reality that results from *action*, the conversion of the bare mode of *objective* knowing [i.e. knowing an object] into one of knowing *reality* as something produced by consciousness.[52]

Kant underlines that the schema of a triangle exists only in thought. The schema forms a rule of synthesis without being restricted to a specific image. In *The Architecture of the City*, Aldo Rossi brings this idea into the realm of architecture. Rossi wrote a theory of the architecture of the city which progresses from the rich immediacy of the city to its conceptual structure, in order to initially comprehend and then intervene in the city and its architecture. He argues that while cities evolve though material transformations, carrying remnants of their past, there are deeper urban layers that are not necessarily material, yet they are real and persist over time, determining urban dynamics.[53] One can observe a kinship between Rossi's use of the concept of the type and the Kantian transcendental schema. Rossi adopts type as a logical principle that is prior to form and constitutes it, insisting that a type does not represent an image of an object but it is the underlying rule for its formation.[54] Type is transcendental in the way that it is solely a product of human thought and imagination, which nonetheless determines the conditions for experiencing architecture and forming the city. I would suggest that the type is a product of refinement. It becomes comprehensible when the form is seen as purely as possible. In Hegel's words, 'The

statues are now only stones from which the living soul has flown, just as the hymns are words from which belief has gone.'[55] Hegel's plain stones, the empty statues, are Rossi's architectural remainders, types with animated attributes.

Rossi comprehends the city by its formal characteristics. However, the importance of his theory lies in the fact that his 'notional determination' is not truly notional but purely architectural. This is expressed in what he calls 'pathological permanences'.[56] These permanences are architectural remainders that may sometimes seem like isolated artifacts within the city, yet they serve as the defining elements of an underlying urban system that continues to shape the present, as in the case of the Alhambra in Granada. It is detached from its original function as a royal residence. No additions can alter its form, as it embodies an essential and immutable experience that resists modification.[57]

But Rossi's permanences can be also catalysing elements for development, such as the Palazzo della Regione in Padua, whose form has remained unchanged while accommodating different functions over the years. They can also be propulsive in the way they incarnate a city's potential, such as Hausmann's plan for Paris. Rossi understands Haussmann's plan not for its design but as a propelling force of Paris's urban evolution.[58] He does not fall into the trap of revealing a secret content, or some kind of order behind the architecture of the city. Instead, architecture is the formal remainder of the city's sociohistorical context, the tangible record of its biography, extending beyond the experiences through which we perceive it.[59] Schelling's concept of the 'invisible remainder' is helpful here for making clear that understanding is always an outcome of some incomprehensible, primordial base: 'the invisible remainder'.[60] In Schelling the activity that gives birth to reason is triggered by something which is initially formless, lawless and has been brough to order: 'The seed kernel must be sunk into the earth and die in darkness so that the more beautiful shape of light may lift and unfold itself in the radiance of the sun.'[61]

For Schelling reason appears from an irrational ground, the indivisible remainder. Similarly, for Rossi, any rational conception and actual development of the city emerges through irrational architectural remainders. Rossi's theory has thrown light on the existence of formal leftovers in the city, which pre-structure the ground of the future urban growth. Rossi did not read Haussmann's plan for Paris as an attempt to 'introduce a minimum of Order into the wide ocean of primordial chaos'.[62] Rather, the imposition of Haussmann's plan is read as an irrational 'act of supreme violence' which continues to determine the rationalities of Parisian urban growth.[63] Similarly, Rossi discusses Diocletian's Palace in Split as a large building that had been transformed into a city. The building's attributes became urban, 'demonstrating the infinite richness of analogical transformations in architecture when they operate on specific forms'.[64] The formal remainder constitutes the irrational ground and 'predominates over questions of functional organization'.[65] Diocletian's Palace or Hausmann's plan can be seen as the forms of the Schellingian primordial 'nothing' out of which rationality arises.[66] We pass analogically from raw, pre-existing forms into the rational articulation of a city.

As described above, Lacan's concept of the real refers to raw existence that cannot be fully represented in the subject's symbolic constructions. It has to do with the leftovers, the parts of reality that constantly escape signification. Seen from this perspective, Rossi's theory acknowledges that such an invisible yet present Lacanian real exerts control over the form of the city. Psychoanalytic terminology could help clarify the argument: Rossi's theory illustrates a city formed by its symptoms.

Usually, during medical treatment, the doctor asks about one's symptoms, and tries to cure the underlying disorder causing those symptoms. In a sense, Freud follows medicine when he writes that a symptom 'is a consequence of the process of repression'.[67] That is to say, the symptom is there because something is being repressed. The distinctive element, however, is that in psychoanalytic theory one does not get rid of one's symptom. In fact, 'a symptom is considered as subject's true identity'.[68] Similar to Schelling's invisible remainder, a symptom is a pathological formation such as a slip of the tongue, an irrationality which causes discomfort and displeasure when it occurs but nonetheless gives the subject a positive account of their being. 'Symptom is the way we – the subjects – "avoid madness", the way we "choose something (the symptom-formation) instead of nothing …"'.[69] The task for the subject is to acknowledge the symptom in analysis and change their relationship with it. This is where Rossi's theory converges with psychoanalytic theory: he acknowledges the architectural symptoms that give the city form. Just as psychoanalytic symptoms are pathological particularities that give consistency to our being, so Rossi's architectural permanences function and give consistency to the architecture of the city.

My purpose here is of course far from appraising Aldo Rossi's theory. It is to acknowledge that architecture theory is not a description of the objective, given nature of the architecture or the city, but that even that nature is a

product of human thought and practice. ‘As soon as the form of spirit begins to reign … the subject is formally responsible for it even if it is materially something which he simply found.’[70] It is in this light that we must understand the creative character and the ethical dimension of architecture theory.

Appraisal, a retroactive public act

Gilbert Simondon’s observation on the *Encyclopédia* edited by Denis Diderot and Jean le Rond d’Alembert is revelatory regarding the universal character of knowledge:

> The prints of schemas and models of machines … do not have the role of pure, disinterested documentation for a public eager to satisfy curiosity; the information in them is complete enough to constitute a useable practical documentation, such that anyone who owns the book would be capable of building the described machine or of further advancing the state reached by technics in that domain through invention, and to begin his research where that of others who preceded him leaves off … For the first time one sees a technical universe constituting itself, a cosmos wherein everything is related to everything else rather than being jealously guarded by a guild.[71]

What we see is the open-source model in its foundation. An open-source model can refer to any system, framework, or methodology of which underlying code, data or methodology is freely available for public use, modification and distribution, like Wikipedia, or the Linux operating system, whose code is open for anyone to view, modify and distribute. Developers can customise Linux for their needs, contribute improvements and share their versions.

The principal characteristic of knowledge, as Western thought inherited it from the Enlightenment, is that it is public and hence open for appraisal and reformulation. If, for instance, avant-garde modernism is seen like this, it corresponds more to the mediaeval guilds, the guardians and secret keepers of a specified technological know-how, than to the universal spirit that the Enlightenment had put forth. Only once a technique such as architecture is described and inscribed into the symbolic realm, into the field of representations, where it can be related with and become available to others, does rationality emerge via this universal form of knowledge. Publication in the literal sense – to become public and hence open for appraisal – is an ontological precondition for scientific theories. The universality of science lies precisely in its incomplete and open structure.

Regardless of whether one claims to know the subject or is confident in one’s theory, one’s arguments are never self-sufficient; the ‘big Other’ is always responsible for appraising a theory. In Lacanian theory, the concept of the ‘big Other’ represents an imaginary form of authority that guaranties the proper function of reality. Lacan originally describes the big Other not as another subject but as the locus, seat or witness that the subject makes reference to as the guarantor of truth.[72]

In psychoanalytic terms, we can argue that the theories are castrated. The appraisal always presupposes a master, a Lacanian ‘subject supposed to know’ who verifies or falsifies: ‘The analyst is not an empiricist, probing the patient with different hypotheses, searching for proofs; instead, he embodies the absolute certainty … of the patient’s unconscious desire.’[73]

The dominant scientific publication process, and more specifically the blind peer-review process, constitutes a typical paradigm of appraisal, functioning as Lacan’s big Other within both university and scientific discourse. As Žižek notes, ‘The big Other is fragile, insubstantial, properly virtual, in the sense that its status is that of a subjective presupposition. It exists only in so far as subjects act as if it exists.’[74] It is commonly accepted that the identity of the reviewers must remain unknown for the obvious ethical reason of preventing bias that comes from personal beliefs, funding sources, institutional affiliations and others, ensuring the fairness of the publication process. The reviewers are elevated into a form of censorship, which although subjective at its core (reviewers are actual subjects), must be perceived as if it is not, since otherwise the scientific publication would lose its claims to objectivity and neutrality. The scientific enterprise assumes an internal split. Accepting that human rationality is limited and turning to the big Other for appraising our theories, the collective spirit presupposes itself to be cracked, and perpetually evolves.

This is how we can explain the universal appeal of science: it is founded upon its own always imperfect ability to get in direct touch with the real, with the whole of reality which exists independent of our gaze. Scientific theories derive their scientific character from this fact: they always lack. Žižek repeatedly stresses that ‘the Real is not a hard external kernel which resists symbolization, but the product of a deadlock in the process of symbolization’.[75] This statement is derived from Kant’s demarcation between the phenomenon and the noumenon – the ‘thing in-itself’. Whereas phenomena are appearances given to sensible intuition, noumena refer to the rest of reality which sensibility does not reach, they exist independently of our experience of it. Kant writes that ‘the concept of noumenon is merely a boundary concept … a concept setting limits to sensibility’.[76] This limit is crucial in Žižek’s appraisal of

Kant's transcendental system. Since reality is limited, incomplete, it must be supplemented by the perceiving subject's contribution with schemata, the transcendental products of imagination.[77] Only such an open reality allows the imagination to perform its transcendental, ontological function of completing reality with an artificial supplement.[78]

Manfredo Tafuri's critique of early twentieth-century avant-gardes, as expressed in *Architecture and Utopia*, is based precisely on the lack of openness that dominated high modernism, on the transference from ideology to the project, the project of utopia.[79] Ideologies were supposed to clear the way of old cultures and produce uncertainty for the future. Tafuri indicates that the moment ideology became 'ideology of the plan', utopia functioned against its own revolutionary spirit.[80] He argues that high modernism downgraded ideology from a sublime unapproachable object to an ordinary vulgar object. He objects to the physical presence and the mass production of architecture projects, that is to say, the lack of lack. As mentioned earlier, Lacan stresses that anxiety arises precisely when the usual structures of lack break down, confronting the subject with something too present, too real. Tafuri underscores that the Kantian sublime object was no longer at the level of the impossible, but it became excessively present.

However, Tafuri's anxiety and disappointment must be understood here in their full positivity: the failure of the modernist idea implied its potential. Similar to Hegel's idea that the French Revolution lacked a predetermined roadmap to freedom and that an initial period of terror was necessary to establish the conditions for post-revolutionary freedom, the actualisations of the modern movement can be understood as actions that actively generate the framework for their own refutation. Žižek, following Hegel, speculates that a choice always happens in two stages, an initial wrong choice is necessary, since it creates the conditions for the next step, its own overcoming.[81]

Tafuri described the self-destruction of modernism in architecture, not its defeat by and opposing of theory and architecture. Modernism, like other violent cuts in human history, is to be taken as the unconscious beginning or choice of a fundamental project in a similar sense to the way Aldo Rossi's irrational permanences function as the repressed forms of the rational city. Schelling implies that the rationality of our decisions is decided retroactively. A true beginning is based on a primordial deed which, if it were rational in the first place, would not have happened at all. 'If, in making a decision, somebody retains the right to re-examine his choice, he will never make a beginning at all.'[82]

As soon as the unconscious irrational turned into rational logos, when modernism was converted from an ideology into existent projects, anxiety and doubt emerged and opened up the conditions of modernism's appraisal. Therefore, appraisal does not necessarily refer to an external method applied to a group of theories in order to decide which is good for us while eliminating others. In Schelling, the primordial deed is a permanent deed, it is a permanent beginning which, after it occurs, functions as precedent, as 'the ground of the future actuality of another will'.[83] Appraisal, when seen as the perpetual retroactive formation of a theory, is understood to be immanent to theories, while leading to series of theories or long-lasting research programmes.[84]

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Biography

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The Structuralist Debate: Conceptual Architecture (1969–1974) between Formalism and Ideology

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Abstract
In 1967 structuralism underwent a theoretical acceleration, establishing its scientific basis through linguistics and semiotics, which allowed it to question its metaphysical and anti-historical premises through its critique of anthropocentrism, and it began to enter into relations with other disciplines, including architecture. Peter Eisenman's interest in the conceptual began with the various versions of his manifesto 'Notes on Conceptual Architecture: Towards a Definition', published between 1970 and 1974; in all these texts, he speaks of 'formal universals', 'deep structures', 'conceptual structures' and 'sign systems' capable of generating meaning. Conceptual architecture was immediately criticised by Diana Agrest and Mario Gandelsonas, who denounced this structuralist appropriation as an ideological consumption of theory. From 1974 onwards, conceptual architecture began to show signs of weakness, but it was only after Agrest and Gandelsonas's critique, which questioned both its assumptions and its entire intellectual trajectory, that Eisenman's theoretical agenda evolved towards a new, hermetic and unknowable code: the exact opposite of what had been advocated.

Keywords
Conceptual architecture, structuralism, ideology, Diana Agrest, Peter Eisenman, Mario Gandelsonas

One Sentence Summary
The linguistic turn in structuralism in the late 1960s influenced Eisenman's approach to conceptual architecture; this was later challenged by Agrest and Gandelsonas, whose critique prompted Eisenman to abandon it.

The history of structuralism, which argues that meaning emerges from relationships and connections between elements, that structures govern social and artistic practices, and which prioritises analysing the system at a given moment rather than its history, is a long and controversial one. It is made up of accelerations, appropriations, disciplinary transitions, shifts both in its own goals and in its relations with other scientific paradigms, entries into the academy, disillusions and misunderstandings.[1] In its first phase, structuralism found its most fertile fields of application in the human sciences, anthropology and linguistics, where, amid rapid success and mutual influences, it established its own real basis, in the open criticism of existentialism. Then, between 1967 and 1968, we observe its development, with the positions of Claude Lévi-Strauss, Roland Barthes, Jacques Lacan and Michel Foucault changing radically, as did the objects of their criticism. As François Dosse noted:

> Were there many structuralisms or simply one structuralism? … In the mid-sixties, both Louis Althusser and Michel Foucault were trying to bring together the most modern social science

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> research … In 1966, these efforts reached their apex. By 1967, cracks started to appear … This period of deconstruction, dispersion, and ebb, however, only quite superficially affected the rhythm of structuralist research. Research continued elsewhere, in the university, and obeyed another temporal logic. May 1968 had contributed to structuralism's institutional success.[2]

During these years, architectural theory moved away from the analysis of structure through historical narratives, which were problematic both because of their heterogeneity and for being subjective and focused on the human dimension. Structure is sought in topology, in the logical arrangement of forms and in the configurations of spatial systems, where the relationships between elements are the true data of reality; the meaning of architecture as a spatial-textual system therefore no longer lies in the communicative intention of the author, but in its relations to social, political, economic and formal codes. Thus space, not as a place but as a network of topological relations, has a dual role: on the one hand, it is the ontological basis of the structure, its condition of existence; on the other hand, space allows the structure itself to manifest, to be thought and perceived. In the 1950s, both philosophers such as Jacques Derrida and Marxist-structuralist intellectuals such as Henri Lefebvre and Louis Althusser criticised the foundations of structuralism, targeting its critical positions on history and anthropocentrism.[3] Between the rejection of the historical dimension and the death of the author, aspects of the militancy of certain authors such as Foucault can be discerned, aspects which they also propose as ways of rethinking bourgeois ideology.[4]

But these were also the years in which, on the one hand, the French cultural scene witnessed a kind of decline in the figure of the *intellectuel engagé à la* Jean-Paul Sartre and, on the other hand, structuralist thought became institutionalised with its entry into the academia. It was here that the movement broadened and articulated its scientific objectives and met those disciplines that had hitherto remained outside the debate, such as architecture, with which intellectual borrowings, transpositions of definitions and conceptual applications began to be defined. By entering academia, however, Barthes, Lévi-Strauss, Lacan and others also began to define the differences between their positions and to consider the movement itself as something episodic rather than a true philosophical current.

From 1967 onwards, the relationship with architectural theory became more persistent, also facilitated by the rupture that had opened up between academia and the profession. This kind of epistemological break is confirmed by the gradual distancing between the profession, with its social and political tensions, and the repositioning towards intellectual autonomy of academia, directed towards areas protected from the chaos of professional events.

Peter Eisenman and the formal basis of architecture

Peter Eisenman's 1963 PhD dissertation at Cambridge is an analysis of the formal basis of modern architecture carried out with the tools of structuralist analysis.[5] Starting from the autonomy of formal elements, whether visual, geometric or compositional, Eisenman emphasises the rules of form generation, the internal logical structures of transformation, their grammar, relations, repetitions, hierarchies. Eisenman shows here how formal production does not consist of an abstract or fixed idea of form, but is configured by what remains after the iterations of a design process based on the coherent structure of the dynamic rules of transformation of the system itself: 'Any ordering or organization of architectural form within the design process can be called a system: more explicitly a formal system.'[6] It was then, in 1969, at the suggestion of the linguist Max Block and thanks to the texts he sent him from Cornell, that Peter Eisenman began to take a direct interest in Noam Chomsky's structuralism and in the concepts of deep structure, surface structure and the transformative rules that keep them in relation.[7] *Syntactic Structures*, a minor text in Chomsky's oeuvre, thus becomes a guide to the world of architectural criticism for Eisenman, who began to use these terms in the definition of a theory of formal orders in a specific sense. [8] He would call it 'Conceptual Architecture' and theorise the existence of a superficial perceptual order and a deep conceptual order.[9]

In this way, Eisenman adheres to what Barthes describes as the central principle of structuralism: 'The goal of all structuralist activity, whether reflexive or poetic, is to reconstruct an "object" in such a way as to manifest thereby the rules of functioning (the "functions") of this object.'[10] Influenced by these approaches, in 1970 Eisenman published in *Architectural Forum* a review of 'Meaning in Architecture', edited by Charles Jenks and George Baird, in which he polemically described how this anthology consists only of critical texts enclosed within the semantic paradigm, highlighting the interpretive problems of a theory of meaning not applicable to architectural criticism.[11] On the contrary, citing Chomsky as a source for the possible construction of an alternative point of view based on syntax, he proposes a linguistic-structuralist approach as the most appropriate theoretical framework capable of constituting the horizon within which a theory of architectural composition can be

founded: 'This in itself leaves unexpressed the problem of basic regularities which pertain to particular languages as well as to language in general. Syntax in this view of language becomes a rather trivial matter.'[12]

Eisenman's Manifesto *in fieri*: the 'Notes'

Eisenman's decision to define his theory as conceptual came during discussions with the art critic Rosalind Krauss, whom he met at the events organised for the May 1969 CASE 7 symposium: as is well known, the term was already circulating in New York art circles, while the two often worked closely together until the late 1960s.[13] He consolidates his conceptual architecture theory primarily through his interest on the work of Terragni culminated in the two texts published in 1970 and 1971, the various slightly different versions of his manifesto 'Notes on Conceptual Architecture: Towards a Definition', all published between 1970 and 1974, and the articles published in *Oppositions* since its founding in 1973.[14] The work carried out on the versions of 'Notes' itself constitutes an internal debate lasting at least four years, in which Eisenman procedurally modified his point of view as a function of both experience and close dialogue with Diana Agrest and Mario Gandelsonas, who both had studied anthropology and linguistics in Buenos Aires between 1964 and 1966, attended the Barthes seminars in Paris in 1968 and then moved to New York in 1971, where, in contact with Emilio Ambasz and the Graham Foundation, they began to collaborate with the Institute for Architecture and Urban Studies.

Briefly, we can say that the first version was 'Notes on Conceptual Architecture: Towards a Definition' published in *Design Quarterly*: conceptual architecture is here first defined in fifteen footnotes, of which the main text has been blanked out.[15] The second version was published in *Casabella* a few months later and was entitled '*Appunti sull'Architettura Concettuale. Verso una definizione'*, a text this time consisting of thirty-eight notes, arranged in a different order.[16] The third, Spanish version was never translated into English, entitled 'Notas sobre arquitectura conceptual: estructura profunda dual', was presented at the symposium *Arquitectura, historia y teoria de los signos* organised by Tomàs Llorens in Castelldefels in March 1972. After receiving criticism in the following months for applying Chomsky's theory too literally, Eisenman corrected the text and sent the fourth version, with the same title, for publication in the conference proceedings in 1974: here, anyway, he reaffirms his conviction of the inseparability of idea and form, whose dialectic defines their syntactic dimension.[17] The fifth version, entitled 'Notes on Conceptual Architecture II: Double Deep Structure', is unpublished, and was later released as a sixth version with further modifications under the title 'Notes on Conceptual Architecture II A'.[18] This would be republished in Japanese, with minor modifications to the contents, as the seventh and last version, under the title 'Notes on Conceptual Architecture (II): Double Deep Structure' in 1974.[19] The text was used in part on other occasions; starting from both his initial presentation of the logic of House I at CASE 7 and the opening section of the 'Notas', Eisenman expands upon the two texts 'House I, 1967' and 'House II, 1969', which were published in *Five Architects* in 1972, republished with additional modifications under the title 'Cardboard Architecture/*Castelli di carte*' in *Casabella* the following year.[20]

What is interesting about this incessant work is perhaps both the monological and dialogical dimensions of the content of the 'Notes', which change in a constant search for a well-founded and credible definition. In all versions Eisenman speaks of 'formal universals' capable of generating meaning. It is here that Eisenman defines the notion of conceptual architecture, despite the acknowledged difficulty of being truly effective in the design phase: indeed, it will always remain problematic to develop purely transformative methods, such as analytical diagrams, while reducing semantic contexts to a pure system of signs. He arrives at a radical definition of conceptual architecture as a system of signs capable of communicating exclusively syntactic relations in their total transparency, based on the innate capacity of the human mind to understand rational rules. From a philosophical point of view, this is nothing new: innatism is a classical position typical of the seventeenth-century debate between rationalists and pragmatists on the nature and possibility of knowledge and its cognitive value, and thus the basis of a possible modern science and epistemology. The definition of conceptual architecture thus revolves around that of a formal universal, which in turn seems a generically understood formal archetype; in any case, a certain ambiguity remains in the definition, as Eisenman would gradually describe such formal universals as 'deep structures', 'conceptual structures' and 'sign systems' capable of generating meanings.[21]

Agrest and Gandelsonas: knowledge and ideology

In the same months of 1970 in which Eisenman began to publish his 'Notes', Agrest and Gandelsonas published an article in Spanish in the Argentine architectural periodical *Summa* in which they related semiology to material inequalities, rather than focusing on signifiers, while offering their own interpretation of two concepts that would be fundamental to their critique: ideology and knowledge in the field of architectural criticism.[22] These

are two classic terms that echo what Barthes called literature, the ideologisation of Western writing in general, and what he had already defined as the 'degree zero of writing', the attempt to free writing from structures of hierarchy and power.[23]

For Agrest and Gandelsonas, by contrast to Eisenman, any introduction of theories and concepts from other disciplines, such as semiotics or structuralist philosophy, into the critical architectural debate is in itself a production of ideology, or what they call an ideological consumption of theory, that is, a negative and illusory invasion from outside the discipline of architecture.[24] Importing the concept of function into architecture, for example, would prevent a genuine and original non-ideological scientific development of disciplinary scientific knowledge (or 'the knowledge'). This critical approach to the ideological consumption of theory is explicitly Marxist and close to Manfredo Tafuri's critique of capitalism, while echoing Althusser's *Ideology and Ideological State Apparatuses* (1970).[25] This is unlike their later New York work in which they abandoned the notion of perverse objects for syntactic structures, and move from an ideological critique to a formal analysis. It is a shift typical of the Barthes of *S/Z* (1970) and then of *The Pleasure of the Text* (1973), in which the critique of structuralism is increasingly articulated and politicised, and would find ample echo and theoretical-critical consonance in Agrest and Gandelsonas's later work.

Agrest and Gandelsonas immediately criticised conceptual architecture based on these initial but clear premises. In 1972, Gandelsonas worked on his first American article, 'On Reading Architecture', an attempt to critique the system of meaning that Eisenman was developing. Shortly thereafter, between 1972 and 1973, Agrest and Gandelsonas published a series of articles on the misunderstandings arising from the use of concepts derived from linguistics and structuralism in the field of architecture.[26] The theses expressed in these texts oscillate between ideological consumption in general and the dangers implicit in ideology in Eisenman's work in particular. They constitute the theoretical core of the first texts in which a structuralist-based architectural critique of Eisenman's conceptual architecture developed in the United States, accusing it of being ideological.

Then, on the clear and original basis expressed in 'Linguistics in Architecture' (1973), Gandelsonas offers a second critique of Eisenman's conceptual architecture, confirming the need to distinguish between ideology and theory: the concepts 'syntax' and 'deep structure' need to be carefully defined when transferred from linguistics to architecture. This ultimately led to Eisenman's work being seen as a phenomenon within Western architectural ideology. Thus, in the space of a few months, the architectural debate took on the complexity of a debate traditionally confined to philosophical and linguistic structuralist circles. While Diana Agrest introduced Marxist categories borrowed from Althusser and Balibar, such as the dialectic between knowledge and ideology, Mario Gandelsonas drew on Julia Kristeva's semiotics, both by applying distinctions such as that between the semiotics of communication and semanalysis, and by re-reading studies on Saussurian anagrams.[27] This broad investigation allowed them to transpose notions such as intertextuality and alternative systems of signification, freed from the direct referentiality between sign and object.

Finally, in the background, the influence of Jacques Derrida, whose deconstruction of meaning, understood as an unstable phenomenon in constant tension between repetition and difference, soon paved the way for a radical redefinition of the relationship between space, language and meaning.[28]

The demise of conceptual architecture

From 1973 onwards, Eisenman responded to such criticism by embarking on a reconnaissance of what was still lacking in his rational theory of architecture, eliminating all direct references to Chomsky and recognising the impossibility of translating his insights into the formal structures of language into architecture. He would continue to define the conceptual structure of his theory as rational, but without mentioning it, abandoning the linguistic analogy and referring only to the conceptual aspects of his theory.

Thus conceptual architecture began to show symptoms of weakness and diminished cohesion, while Eisenman continued to engage with questions of the autonomy of form, albeit from a critical position, appropriating the concept of ideology. A use, however, emptied of its capacity to embody a conflict, whether social, political or even simply formal, given that Eisenman's conception of dialectics is foreign to any Marxist instance.

The final step in the definitive overcoming of conceptual architecture took place in November 1974 with the publication of Eisenman's 'Conceptual Architecture: From the Perception of Form to its Hidden Meaning', then published in *Casabella* the next year, in which he defined a new concept of form as the result of a set of archetypal relationships that influence our sensitivity in relation to the environment.[29] In this critical turn and in line with the radical change of tone, this is the last time he speaks of conceptual architecture.[30]

In the meantime, the critical debate became more international, also as a function of the almost contemporary new theoretical approaches aimed at

Fig. 1: ‘Architecture and Urban Planning Round Table ‘Theory’, held on 24 April 1974 at Princeton University’s Architecture Building. A round table discussion on theory from the special spring lecture series organised by Diana Agrest. From left: Peter Eisenman (Director of the Institute for Architecture and Urban Studies), Rodolfo Machado (Assistant Professor of Architecture at Carnegie-Mellon University), Mario Gandelsonas (moderator, Fellow at Institute for Architecture and Urban Studies), Manfredo Tafuri (Director of the Istituto di Storia, Istituto Universitario di Architettura Venezia), Antony Vidler (Associate Professor of Architecture at Princeton University). Photo courtesy of Princeton University Library, Special Collection.

redefining the foundations of the discipline. This happened in September 1973 in Milan at the XV Triennale in the section 'Rational Architecture' by Aldo Rossi and Massimo Scolari, and in New York with the founding of the magazine *Oppositions*, in April 1974 in Princeton with the cycle of conferences *Practice, Theory and Politics in Architecture* organised by Agrest, and in Los Angeles with the last CASE conference, and later in June in Milan, with the first IASS organised by Umberto Eco and in Paris, with the symposium *Histoire et théories de l'architecture* organised at the Institut de l'environnement.

In May 1974, Eisenman defined the beginning of a new cycle of his work, beyond any reference to linguistic structures, conscious or unconscious, in the article 'Haus III: To Adolf Loos and Bertolt Brecht'.[31] This new cycle, not by chance, was born immediately after Eisenman's meeting with Manfredo Tafuri the previous month, which would open up new critical horizons. The new direction was favoured by Diana Agrest, who had invited Tafuri first to Princeton and then to the IAUS.[32]

As a result of this fierce debate, which lasted from 1969 and 1974, challenging the assumptions of the problematic intellectual trajectory on which conceptual architecture was founded, both Eisenman's approach and his critical language would henceforth be inscribed in a new, hermetic and unknowable code. The sign was no longer a transparent object in a conceptual system comprehensible to reason, but had become its opposite.

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Notes

1. Gilles Deleuze already described in *Logique du sens* (Paris: Les Éditions de Minuit, 1969) how what the structuralist authors had in common was only the name.
2. François Dosse, *History of Structuralism Volume 2: The Sign Sets, 1967–Present* (Minneapolis: University of Minnesota Press, 1997), *xiii–xiv*.
3. For example, in Louis Althusser, *For Marx,* ed. Allen Lane, trans. Ben Brewster (London: The Penguin Press, 1969).
4. Michel Foucault, 'Qu'est-ce qu'un auteur?', *Bulletin de la société française de Philosophie* (July–September 1969), from a lecture given on 22 February 1969 at the *Collège de France*: 'the function of an author is to characterize the existence, circulation, and operation of certain discourses within a society'. In English translation, Foucault, 'What is an author?', in *Textual Strategies: Perspective in Post Structuralist Criticism,* ed. and trans. Josué V. Harari (Ithaca, NY: Cornell University Press, 1979), 141–60. Foucault is appropriating a quote from Samuel Beckett here: 'What does it matter who is speaking?', in *Nouvelles et textes pour rien* (Paris: Les Éditions de Minuit, 1958, 129), and as in many other Beckett's texts, like *The Unnamable* (1958), to affirm a new method of analysis, the author function, already mentioned in the Roland Barthes's article 'La mort de l'auteur', published in *Aspen* in 1967. It must be remembered that in those months of 1969 Foucault completed the drafting of *L'Archéologie du savoir* (1969), a clear departure from structuralism; the questioning of the relationship between work and author can be even traced back to 1966, when he worked with Gilles Deleuze on editing the French edition of the works of Nietzsche, an author who would influence his position on the spontaneous attribution of a work to the voluntary expression of the subject.
5. *Architectural Principles in the Age of Humanism* (London: The Warburg Institute, 1949) by Rudolf Wittkower, the teacher of Eisenman's mentor Colin Rowe, was fundamental in providing him with arguments to support his thesis that there is rational and cognitive potential in formal diagrams.
6. Peter Eisenman, *The Formal Basis of Modern Architecture*, PhD dissertation, Cambridge, 1963, 38. Facsimile reprint with same title (Zurich: Lars Müller Publishers, 2006).
7. See the letter of 6 February 1969, reproduced in Mathew Ford, ed., *By Other Means: Notes, Projects, and Ephemera from the Miscellany of Peter Eisenman* (Leiden: Global Art Affairs Publishing), 117, in which Peter Eisenman replies to Max Block, thanking him for the 'papers' sent to him and adding: 'According to my brother [Robert] we have many common interests'. Max Block was Professor of Analytic Philosophy and Language at Cornell. Robert Falk, a former Princeton professor and the client of House II, may also have played a role in shaping Eisenman's thinking.
8. Noam Chomsky, *Syntactic Structures* (The Hague: Mouton Publishers, 1957).

9. ‘If Chomsky argues that his theory is valid for explaining even the mental processes underlying innate learning dynamics, effectively transforming it into a cognitive theory, Eisenman’s use of Chomsky’s linguistics is more metaphorical than literal explication as such. For Eisenman, both language and architecture can be seen in three semiotic categories: pragmatics, semantics, and syntactics. Pragmatics relates form to function, semantics relates form to iconography, and syntactics distinguishes between the relations of the *physical* forms of a space or building and the *conceptual* spaces of a structure.’ Thomas Patin, ‘From Deep Structure to an Architecture in Suspense: Peter Eisenman, Structuralism, and Deconstruction’, *Journal of Architectural Education* 2 (1993): 91.
10. Roland Barthes, ‘The Structuralist Activity’, in *Critical Essays,* trans. Richard Howard (Evanston, IL: Northwestern University Press, 1972), 214.
11. Charles Jencks and George Baird, eds., *Meaning in Architecture* (London: Cresset Press, 1969).
12. Peter Eisenman, ‘Building in Meaning’, *Architectural Forum* 133, no. 1 (1970): 88–90.
13. An initial division between the perceptual and the conceptual was proposed by Sol LeWitt in the catalogue to his 1970 exhibition at the Gemeentemuseum (The Hague) *Sol LeWitt: Haags Gemeentemuseum 25 Juli–30 Aug ’70* (The Haag: Haags Gemeentemuseum, 1970) in ‘Paragraphs on Conceptual Art’, 56–57. The contextualisation of all of Eisenman’s work on the conceptual as a polemical response to LeWitt’s 1970 catalogue (with particular reference to the axonometric representations of House VI) is described in Desley Luscombe, ‘Architectural Concepts in Peter Eisenman’s Axonometric Drawings of House VI’, *The Journal of Architecture*, 4 (2014): 560-611. In an interview with Carlos Brillembourg, Eisenman explains: ‘House II is much more influenced by, say, Rosalind Krauss’s writing on contemporary art at the time and the idea of sculpture in the expanded field and the work of minimalist sculptors Robert Morris and Sol LeWitt. By House II, Krauss and I were working closely – she eventually wrote “Notes on the Index” in *October* 3 and 4, which became key to House IV. … We did a project with him [Donald Judd], and one with Michael Heizer … I was working on my own project, which was more influenced by conceptual art, by color field painting, by Krauss’s, Michael Fried’s, and Clement Greenberg’s writings. Then, in the late ’60s, my work moved from reading people like Lévi-Strauss and Noam Chomsky to the poststructuralists by the early ’70s.’ Peter Eisenman, interview by Carlos Brillembourg, *Bomb Magazine*, 1 October 2011, https://bombmagazine.org/articles/2011/10/01/peter-eisenman/.
14. Peter Eisenman, ‘Dall’oggetto alla relazionalità: la casa del Fascio di Terragni’, *Casabella* 344 (1970): 38–41; Peter Eisenman, ‘Object to Relationship II. Casa Giuliani Frigerio: Giuseppe Terragni’, *Perspecta* 13/14 (1971): 36–75.
15. Peter Eisenman, ‘Notes on Conceptual Architecture: Towards a Definition’, *Design Quarterly* 78–79 (1970): 1–5.
16. Peter Eisenman, ‘Appunti sull’architettura concettuale. Verso una definizione’, *Casabella* 359–60 (1971): 48–58.
17. Peter Eisenman, ‘Notas sobre arquitectura conceptual: estructura profunda dual’, in *Arquitectura, historia y teoria de los signos. El Simposio de Castelldefels,* ed. Tomás Llorens (Barcelona: La Gaya Ciencia, 1974), 202–22.
18. Peter Eisenman, ‘Notes on Conceptual Architecture II A’, in *Environmental Design Research: Fourth International EDRA Conference* vol. 2, ed. Wolfgang Preiser (Stroudsburg, PA: Dowden, Hutchinson & Ross, 1973), 319–23, and in *On Site* 4 (1973): 41–44.
19. Peter Eisenman, ‘Notes on Conceptual Architecture (II): Double Deep Structure’, *A+U Architecture and Urbanism* 35 (March 1974): 177–184.
20. Peter Eisenman, Michael Graves, Charles Gwathmey, John Hejduk and Richard Meier, eds., *Five Architects – Eisenman, Graves, Gwathmey, Hejduk, Meier* (New York: George Wittenborn & Company, 1972); Peter Eisenman, ‘Cardboard Architecture/*Castelli di carte: Due opere di Peter Eisenman*’, *Casabella* 374 (1973): 17–31.
21. Eisenman, *Appunti sull’architettura concettuale*, 56.
22. While these debates took place mainly in New York, in Argentina an influential journal like *Summa* played a crucial role in shaping architectural historiography, theory and criticism, as the intellectual voice of the region. As a platform for critical thinking, *Summa* reinterpreted issues such as post-structuralism, semiotics and formalism in local and regional contexts, not only on a theoretical level but also in relation to practice.
23. Diana Agrest and Mario Gandelsonas, ‘De la semiologia, los objetos perversos y los textos ideologicos’, *Summa* 32 (1970): 73–74. They later published another text on the subject in another non-architectural journal: Agrest and Gandelsonas, ‘Critical Remarks on Semiology and Architecture’, *Semiotica* 3 (1973): 252–271. Agrest and Gandelsonas would be present in the new institutions of international linguistics, proving that the architectural community had taken an interest in these scientific fields.
24. See Agrest and Gandelsonas’s answers included in ‘Letters’, *Oppositions* 3 (1974): 111, 117–18.
25. There are different definitions of ‘knowledge’ and ‘ideology’ within the structuralist debate: the meanings Louis Althusser uses are respectively more akin to a ‘product of theoretical practice’ and to the ‘relationship between human being and the world’.
26. Mario Gandelsonas and Diana Agrest, ‘Semiology and Architecture: Ideological Consumption or Theoretical Work’, *Oppositions* 1 (1973): 93–100; Mario Gandelsonas, ‘Linguistics in Architecture’, *Casabella* 374 (1973): 17–31; Mario Gandelsonas, ‘Linguistics, Poetics and Architectural Theory’, *Semiotext(e)* 2 (1974): 88–94.

27. Louis Althusser et al., *Lire le Capital* (Paris: Éditions François Maspero, 1965); Julia Kristeva, *Σημειωτική: Recherches pour une sémanalyse* (Paris: Les Éditions du Seuil, 1969); Julia Kristeva, *La révolution du langage poétique* (Paris: Les Éditions du Seuil, 1974).
28. Jacques Derrida, *L'écriture et la différence* (Paris: Les Éditions du Seuil, 1967).
29. Peter Eisenman, 'Conceptual Architecture: from the Perception of Form to its Hidden Meaning', 'Architettura Concettuale: dal livello percettivo della forma ai suoi significati nascosti' *Casabella* 386 (1974): 25–27.
30. An almost unknown text/manifesto by Eisenman was included in the catalogue of the exhibition *Contemporanea. Incontri internazionali d'arte*, held at Villa Borghese in Roma, from 30 November 1973 to 28 February 1974. Peter Eisenman, 'Conceptual Architecture: From the Perception of Form to its Hidden Meanings', in *Contemporanea. Incontri internazionali d'arte*, ed. Achille Bonito Oliva et al. (Florence: Centro Di, 1974).
31. Peter Eisenman, 'House III: to Adolf Loos and Bertolt Brecht', *Progressive Architecture* 55 (1974): 92–98.
32. Following the text published in the catalogue for the 1972 MoMA exhibition *Italy: The New Domestic Landscape*, Tafuri's first English-language publication was 'L'Architecture dans le Boudoir: The Language of Criticism and the Criticism of Language', *Oppositions* 3 (1974): 37–62, a text that he had presented a few months earlier in Princeton, at the conference organised by Diana Agrest *Practice, Theory, and Politics in Architecture*, with the title 'A Theory of Criticism', and a few days later as a lecture at the IAUS. Tafuri, then a member of the Italian Communist Party, had only been granted a visa to enter the US for a few days.

Biography

Andrea Canclini is an assistant professor of architectural humanities at Lancaster University School of Architecture. He holds degrees in architecture and philosophy and a PhD in history, theory and criticism of architecture. His doctoral research focused on the reception of French thought in American architectural discourse between the 1960s and the 1980s. Previously, he taught theory in contemporary architectural design at the Politecnico di Milano and was a visiting professor at the Beirut Arab University. There, he conducted fieldwork in Palestinian refugee camps in Beirut. He has participated in and organised several international conferences and symposia and his work has been published worldwide. His main area of research is between critique and history of modern and contemporary architecture and its theoretical and cultural foundations. He sits on of the editorial board of *Khōrein: Journal of Architecture and Philosophy*.

Spectres: Architectural Theory as Hauntology

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Abstract
The essay follows the clues scattered by Jacques Derrida, conceiving of contemporary reality as composed of spectres, to investigate the consequences of such a condition on the notion of theory. In this spectral framework, theory is compelled to become a hauntology: a lens through which unresolved tensions, gaps and suppressed presences in space and society are made visible. After briefly surveying the meanings of 'theory', 'spectre' and 'hauntology', the essay analyses two case studies: Peter Eisenman's unbuilt project for West Cannaregio in Venice, and the spectralised suburb of Sanya in Tokyo. Through these examples, it explores how hauntological theory enables a re-reading of architectural context not as a static background but as a dynamic, haunted field. The essay concludes by proposing the return of space as a central concern of architectural theory and practice, demanding a renewed commitment from architecture to engage with what is unseen, excluded or forgotten.

Keywords
Hauntology, architectural theory, spectres, urban space, Peter Eisenman

One Sentence Summary
Following the clues scattered by Jacques Derrida, the essay transfigures architectural theory in a form of hauntology, a lens for revealing unresolved tensions and suppressed presences in space and society.

In Spectres of Marx, Jacques Derrida describes the spectre as

> the frequency of a certain visibility. But the visibility of the invisible. And visibility, by its essence, is not seen, which is why it remains *epekeina tes ousias*, beyond the phenomenon or beyond being. The spectre is also, among other things, what one imagines, what one thinks one sees and which one projects – on an imaginary screen where there is nothing to see.[1]

Yet, Derrida's book opens with a reference to the spectral uprising in Victor Hugo's *Les Miserables*, where unseen, spectral multitudes, though invisible, make a revolution – real spectres that raise barriers, destroy architectures, and redesign the idea of the city and the future. Following the clues scattered by Derrida, who considers contemporary reality as if it were made up of spectres, in this essay I investigate the consequences that such a form of reality has on the notion of theory, which is inevitably compelled to become a hauntology – a tool that observes reality noting what does not work, what has remained unresolved in a given place, as if a matter that

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was not fully addressed had unexpectedly resurfaced.[2] Briefly surveying the definitions of the concepts of theory, spectre and hauntology; then revisiting two specific cases in which theory as hauntology is employed to observe and reimagine the context – Eisenman's project for West Cannaregio in Venice – or to study a place absent in the eyes of the law yet present for the society inhabiting it – the Sanya suburb in Tokyo – I conclude the essay by hypothesising the return of space as a spectral entity with which architecture must once again fully engage, today and in the future.

Theory, spectre, hauntology

Let's consider the classic meanings of 'theory', 'spectre' and 'hauntology'. Theory, from the Greek *theoria*, means 'observation', a speculative doctrine that investigates truth, abstracted from practice, to which it gives norms. Theory is like a machine that, in a continuous cycle, tends to overcome its premises. An irrational theory could be more powerful than the truth and establish a different system of reality, altering the 'conception of entities through which it deals with the world'.[3] Sometimes, even truth is a theory. Religions can be theories, and sometimes theories take root as beliefs. Just because they are believed, they become true. We make them ours. We shape the world in their image. 'Theories', says Federico Soriano,

> eliminate … the contrast between what is true or false, they eliminate rules or even the regulations emanating from them, the individual authors disappear, they even eliminate criticism of the supervisors of theories. And even the place. One theory was not anchored to a time but to a space.[4]

All theories are, in some way, formless architectures of space, floating and operating autonomously; there is a secret life of theories, which are 'like shadows that have lost their bodies.'[5] Theory is not merely the pursuit of truth, but rather research of the blind spots that still persist in the project of the city and territories. As the philosopher Giorgio Agamben writes in his *What is the Contemporary?*, a contemporary person looks at the shadows and not at the lights of the era in which he lives.[6] It is in the shadow that we need to observe, it is in the shadow that we must think and write: the shadow is thus hidden from view and we have lost it along the way. Theory will then look at the counter-histories and counter-events, no longer reasoning about the victors but about the victims.

The word 'spectrum' is Latin, derived from *spec-* (to see), and the suffix *-trum*, indicating an instrument. It is properly the medium for seeing, as well as a fantastic figure or an apparition of something apparently lost. Therefore, theory and spectre share the value of the gaze; they do not concern themselves with a single truth; they operate out of proportion, out of scale, out of time, and out of form; they have the power to alter and can be imaginary. The gaze that architectural theory and the spectre share concerns one of their abilities to deform space, to interrogate it by looking at it without taking it for certain as if it were an unbreakable datum. But the spectre adds to the notion of theory the power to reknit the relationship between the thing observed and society, the life that has pervaded it or that will return to touch it in the future. A spectre veils the existing, lowers its resolution, and does not seek truth; instead, it creates illusions. According to what the sociologist Avery Gordon writes in her *Ghostly Matters: Haunting and the Sociological Imagination,* 'the ghost … is not the invisible or some ineffable excess. The whole essence of a ghost is that it has a real presence and demands its due, your attention.'[7] A spectre is pregnant with unrealised possibilities. And if 'haunting' has to do with a spatiality of 'frequenting', the spectre, like theory, holds space under a yoke and torment. As if imprisoned by an imaginary figure that is always foreign to us, which by nature is itself uncontainable, it passes through walls and prisons, living in an excess of freedom. The spectre has a dual nature: it is invisible but present and active, it comes from the past but its echo from the shadows tells us of the future. In that sense it seems to relate to the sense of architectural theory today and to be a tool for observing and intervening in reality. Indeed, theory can harness the operational strength of disciplines that deal with spectres and adopt their structure. The spectre is omnipresent: it can be true or false, new or ancient, applied to nearby or distant realms. It shrouds and supports reality with its spectral presence, always invisible but also always at work; no place and no territory escape its influence. It becomes a way 'we are notified that what's been concealed is very much alive and present',[8] a form of observation in which every distinction between fictitious and factual collapses.[9]

Hauntology, a notion introduced by Derrida and which is the 'science' that searches for and interprets spectres, operates by observing where something is amiss, or by noticing that something is out of place with respect to the status quo – where the puzzle remains unsolved, where gaps have opened up in space, time and society. These are gaps not so much to be filled with something else, but gaps to be inhabited and thought of as voids around which new futures can be arranged, without trying to replace the given spectre with some material. The spectre observed by such a form of theory indicates both the presence of a specific spectrality that is valuable in itself,

but also a 'problem' of a universal order. For Gordon, haunting

> raises spectres, and it alters the experience of being in time, the way we separate the past, the present, and the future. These spectres or ghosts appear when the trouble they represent and symptomize is no longer being contained or repressed or blocked from view.[10]

Theory as hauntology is entirely consistent with the nature of architecture as a mystical discipline where 'the real world lives and coexists with the oneiric, the surreal, with dreams, symbols, myths, fairy tales, magic' and which must have visions to alter the three-dimensional reality.[11] On the other hand, if architecture believes that theory is a hauntology, it changes its status and mission.[12]

> The problem that the spectre (sometimes just a minor detail, the trace of something that has been obscured) brings with it … "something that must be done" that emerges, when people who were thought to be invisible present themselves noisily and demandingly without giving the impression of wanting to leave, when the relentless future becoming of the present falters, when the present wavers.[13]

Seen in these terms, architectural theory defines the mode of its observation, the lens we place in front of our eyes to see, but also the field of its investigation: the not yet seen. Theory as hauntology takes us back, and in doing so, reconnects the once inseparable but now lost link between itself and society, in view of 'haunting memory' to come.[14]

Design with spectres: Peter Eisenman's project for West Cannaregio in Venice

Unfinished projects, or projects that were never started, extend their theoretical and figurative tentacles into the present, haunting our view of contemporary architecture and urban environments, as well as the specific contexts they were meant to transform. Unrealised projects in many cities, missed opportunities or lost causes exist as ideas, as though they were real but also define an aborted discourse, or a road not taken that could still be productive. The Palazzo del Cinema in Venice, which was never built despite the 1995 international competition in which more than five hundred architectural firms participated, remains a spectral presence, hovering and interfering with the normal course of things when the city turns on its lights. The vanished Twin Towers continue to exist in today's New York, though only as air and cavities. Crimes past and present change our behaviour in relation to space, or the way we interpret certain places. For architecture, the spectre is thus a real phenomenon that affects its economic value. When a building is haunted, its real estate value plummets. Think of the damned Venetian palace Ca' Dario, or the haunted houses populated only by darkness, dust and harsh lights: spectre-inhabited places often fall out of commerce for decades, remaining unvisited and neglected, at best only pointed at from afar. What is certain is their urban resonance, which undermines the rigid frameworks with which cities, perhaps still entirely within the horizon traced by the dialectic of Enlightenment, are usually designed.

As Anthony Vidler teaches us, it is precisely spectres that drive the advancement of architectural discipline, while what is built irreparably enters the flow of reality.

> Preoccupied with traces and residues – the material of the dreamwork – rather than with the new, writers and architects have increasingly found ways to chart the underground reverberations of the city. In their ascriptions, territoriality becomes unfixed, camouflaged and dug-in, in so many ironic emulations of military and geopolitical strategy; subjectivity is rendered heterogeneous, nomadic, and self-critical in vagabond environments that refuse the commonplaces of hearth and home in favor of the uncertainties of no-man's-land.[15]

Peter Eisenman's project for West Cannaregio area in Venice, the result of a competition held in 1980, can be considered the precursor of using theory as hauntology in an operational sense, and one of the first moments when the discipline of architecture considered the existence of spectres as a real matter. Near the project area, north of the city next to the Santa Lucia railway station, Le Corbusier had designed the new city hospital in 1964. Based on a grid that attempted to replicate the Venetian urban structure, projecting it onto the lagoon by articulating it into new *calli* and *campi* on the water; elevated from sea level by a forest of *pilotis* and designed to grow infinitely, the project was never realised due to the master's sudden death. For his 1980 project, Eisenman decided to restore Le Corbusier's project by drawing it as if it were present, making it a hovering spectre that, latent for twenty years, has returned to make its presence felt, to draw again on the imperishable plane of reality. [Fig. 1] Francesco Dal Co, the editor of the competition catalogue posits that the project must 'regress into fiction' to oppose the incursions of reality, thus giving this movement a negative, indeed regressive, judgment. Eisenman responds by taking 'simulation to the extreme', demonstrating how it is, paradoxically, the greatest power of reality itself.[16] The American architect's goal

Fig. 1: Peter Eisenman, *Cannaregio Ovest Project*, axonometric view with the spectre of Le Corbusier's Hospital, 1980. Università Iuav di Venezia, Archivio Progetti, Archivio Progetti Collection, AP-riproduzioni/fot/014/05/3.

Fig. 2: Peter Eisenman, *Cannaregio Ovest Project*, plan, 1980. Università Iuav di Venezia, Archivio Progetti, Archivio Progetti Collection, AP-riproduzioni/fot/014/05/1.

is to design intransitive objects that 'stand as a potential condition, to pose the question of whether it is possible to create a dwelling for man and an urban infrastructure based on the assumption of an alternative relationship between man and his objective world.'[17]

Indeed, the project area is riddled with chasms dug into the ground 'as a continuation of Le Corbusier's grid, whose points in the area become ideal fragments or ruins.'[18] These chasms strike existing architectures, breaking into them or entering them; others sink into the ground remaining hollow or filling with water that resurfaces from the dark bottom of the lagoon. Still others serve to house a series of 'uninhabitable houses' where 'all the conditions of the real building exist as shreds of a potential condition perhaps pre-existing in the area, of which the project is only a distillation'.[19] [Fig. 2] Eisenman is thus making a statement about the presence of spectres, particularly the spectre of modernism at its peak and its disappearance, and uses a form of theory that does not stop at the concrete place but broadens its observation to include the intangible. His project response continues along the same line, itself remaining unbuilt and in a spectral state, leaving questions unanswered, as if the spectre could not really leave but had to remain there to haunt that part of the city, to redesign it or cast it in another light. The architect here intervenes not only as a ghostwriter of the city but as an evoker of dormant powers.[20] What matters is not the search for a form or an eternal solution, but the desire to make a spectre visible and keep it that way, presenting it to us with all its strength and all its questions, putting an end forever to the value of truth. Eisenman essentially shows us an alternative way to work in architecture and urban planning by basing the emergence of the project idea not on history, but on a forgotten, suppressed entity, which is still a project but is also in a sense invented or cursed. [Fig. 3]

Here Eisenman uses theory as hauntology, involving certain evaluations and changes in the status of architectural design which frees itself and loses all formal necessity; it opens itself to the disturbing events of surprise and trickery; it assumes the task of evoking what is absent and what has been excluded from the scientific domain. As a mode of observation, it becomes a 'way of negotiating the always unsettled relationship between what we see and what we know.'[21] Some questions arise: first, what are the alternative stories that we could and should write about the relationship between architectural design and society? Second, how can we see and then represent a spectre? Third, in what way does a spectre challenge the status quo of the existing? Fourth, we ask with Eleanor, the protagonist of *The Haunting of Hill House*, 'What was here, … what was here and is gone, or what was going to be here and never came?'[22] One of the questions that theory as hauntology asks is, 'What paths [of architecture and life] have been disavowed, left behind, covered over and remain unseen?'[23]

A place disappeared while remaining there: the case of Sanya in Tokyo

There are also pieces of cities that disappear while remaining in place. Not abandoned places, but parts of the city that have strategically undergone a process of spectralisation, which is why we are interested in them – because 'spectralisation' is one of the ways the city grows, and architecture makes its presence felt. This upheaval replaces the late-century financial idea of the city with a 'city of ghosts' that no longer grows through subdivisions and sales, that is, on the paradigm of property, but is organised by spectral presences, that is, people and spaces that, though not visible, exist and act, shaping the city, altering and subverting its logic and image: the spectre is the structure of the city.[24]

Moreover, observing a part of the city that is invisible to the law, but that is present and active, which thus assumes all the characteristics of a spectre, helps to deepen the consequences that the spectre has on theory. In fact, we are faced with a place that makes us blind, that forces theory – which, we recall, still means 'observation' – to see, paradoxically, as if without eyes. Rather, such theory will be called upon to feel, to 'experience haunting', as Avery Gordon would say.[25] Such theory must truly enter that place made literally of spectres and record its questions, silences, screams and scratches on the peeling walls. We are dealing with a place whose material is a spectre, with all the paradoxical charge that this statement implies, and which thus forces us to believe in something that, as far as we know, is imaginary, unreal, invented, fictitious, and which therefore has never assumed sufficient importance to arouse our attention, always placed in a minor position compared to the certainty of truth. We are dealing with a place that has never had the right to be narrated, that has no history but whose story is that of having become a spectre that hovers and thus somehow exists and asks to be considered. It demands our attention, because within such a place – which interests us not only for the way it has been constructed but in its totality – people still live, and these people are themselves reduced to the state of spectres.

> The picture of the place is not personal memory as we conventionally understand it, private, interior, mine to hoard or share, remember or forget. The picture of the place *is* its very

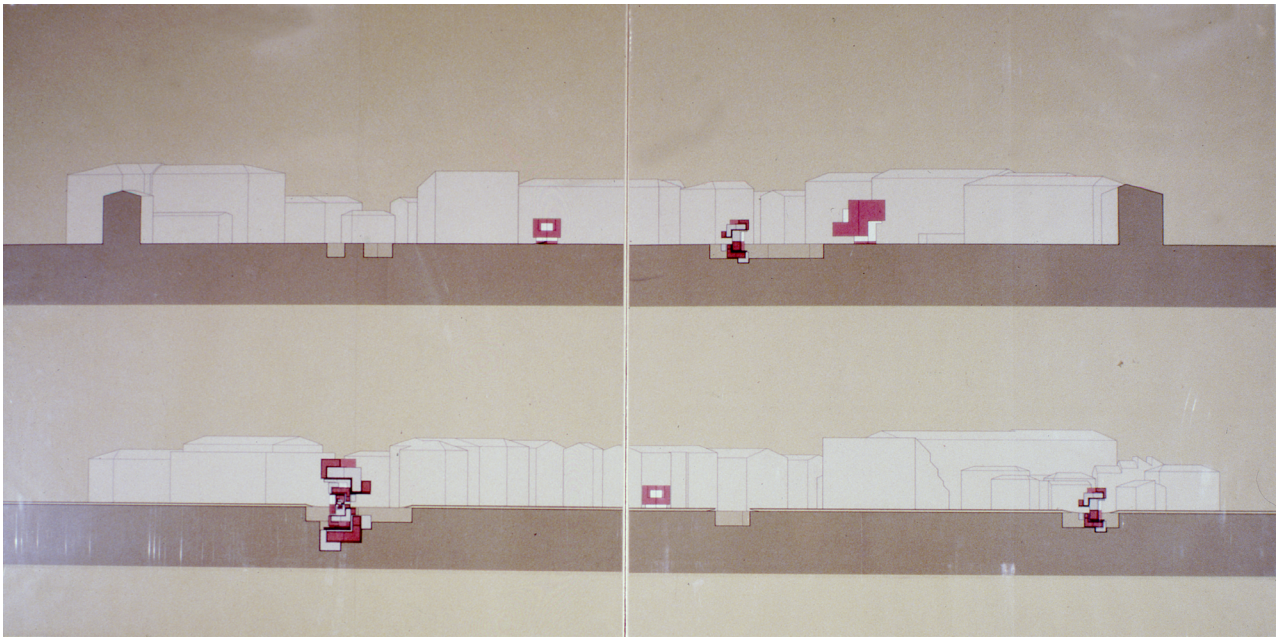

Fig. 3: Peter Eisenman, *Cannaregio Ovest Project,* section, 1980. Università Iuav di Venezia, Archivio Progetti, Archivio Progetti Collection, AP-riproduzioni/fot/014/05/4.

> sociality, all the doings, happenings, and knowing that make the social world alive in and around us as we make it ours. It *is still out there* because social relations as such are not ours for the owning.[26]

The spectre of this place does not just alert us to its spectral nature, which in itself constitutes the signal of its re-emergence, but it alerts us that before its appearance, an elision had taken place, and that there was a lack there that, despite its true presence and visibility, was met with indifference or ignorance. Theory as hauntology thus operates within unknown zones, never drawn, never documented, never seen, even if they are perhaps right before our eyes, present in every house, in every building, in every square, and in every city. Its action becomes an act of return. In architecture it can take the approach of investigative aesthetics advocated by Eyal Weizman, emerging from the study of unsolved crimes, even murders. Weizman shows us that the design related to the spectre whose presence can be sensed from traces and imprints, even concrete and violent ones, is not necessarily directed at the reconstruction of a city, neighbourhood or house. On the contrary, it involves dynamics and dialogues related to society in its relationship with space, with technology and culture.[27]

But let us return to the part of the city that disappeared while remaining in place, starting by considering its inhabitants, or at least the social reason that makes it a spectral space. The *johatsu*, translated into English as the 'evaporated', and defined by sociologist Hiko Nakamori as 'the sudden disappearance of a person for an unknown reason', are people who have chosen to disappear, to strategically enter the condition of the spectre because they have lost their job or failed in love.[28] Unlike the Argentine *desaparecidos* discussed by Gordon, these people decide to vanish by relying on companies that help them cover their tracks; these are voluntary disappearances, a social death programmed by people who remain in the same city while disappearing. The phenomenon, occurring in Japan since the sixties, sees about 100 000 people disappear each year.[29] These disappeared people live in a specific suburb of the city. Here in Sanya, space and society experience the same process together, participating in the spectre as a common destiny and horizon. It is in the *other Tokyo* that the evaporated find space for their urban spectrality, in that unrepresentable, untraceable city, which is deliberately made to disappear from maps. Certainly, the project is designed to protect the identities of its inhabitants – in Japan, privacy laws are strict – but also, and above all, to avoid altering the mainstream image of the metropolis:

> Garbage collection services in the area improved, a few more "modern" flop-houses were built, and the notorious word "Sanya" was removed from the city map. Today, only the more poetic of the area's ancient titles remain, contrasting oddly with the reality they identify: "Street of Pure Waters", "Bridge of Tears", "Jewel Princess Park".[30]

The project of spectralisation, or transition from a condition of presence to latency, was carried out not by demolishing the suburb or relocating its residents but by dismantling it and fragmenting it into various other administrative units, renaming it, and distributing its parts to adjacent areas of the city. Thus, the 'city of misery' is seen as divided into parts, increasing its ability to wander. Like a spectre, it crosses otherwise blocked and impassable boundaries. Today, 'outcroppings of Sanya – the place we are discussing – dot the city of Tokyo.'[31] The result is an area within the urban fabric that resists any attempt at study, described as a camouflaged part of the city, in Japanese a *doyagai*, meaning 'city of cheap lodging houses', an unknown area from an urban-territorial perspective, where the population, fluctuating between permanent residents, seasonal workers, and day labourers, peaks, not coincidentally, during the winter season. The book *The Vanished: The 'Evaporated' People of Japan in Stories and Photographs* narrates through stories, interviews and photographs the Japanese city's ability to make people disappear, to render them spectral, a capacity that comes from its complexity, darkness, and even its modesty:

> The suburb, north of Tokyo, drifts off to sleep in the icy air, lulled by the humming of the trains. Overshadowed by skyscrapers, this modest neighbourhood is a collection of low houses, deserted sidewalks, and a few unchained bikes leaning against covered cars. The ideal place to hide, disappear, escape.[32]

Here, bodies and cities are neither erased nor invisible. On the contrary, they are present, they do not leave, they continue to haunt, operating politically and brutally.

In the 2023 film *Perfect Days* by Wim Wenders, the life of a sort of *johatsu* is depicted.[33] A modern St. Francis, who was once wealthy but has since chosen the path of extreme poverty, cleans public toilets in Tokyo, lives in a house with a single room, without a bathroom, kitchen, or dining room, a house lacking everything. Even more than in Moriyama House, a 2005 project by Ryūe Nishizawa where the functions of the house are separated from the open space of a garden, in the film the housing programme has exploded across the city: the protagonist's bathroom is a public bathhouse where

he is naked in front of others, his kitchen is a diner in a subway station, his laundry is a coin-operated launderette, his alarm clock is the sound of someone sweeping leaves outside his home every morning, and coffee is served by a vending machine. This *johatsu* lives his chosen and designed poverty with dignity and nobility, giving form to an urban system of empty spaces; the city, in return, nourishes him and provides hospitality. The functions are distant from the true home, but living is brought outside, opening up architecture and reconsidering the city's openness. His anti-heroic urban habits form a political design strategy made up of individual points allied and in constant flux, a kind of non-plan with monumental urbanity where the life and architecture are continuously structured and sustained by nothing other than a spectre.

The return of space

Observing the spectre shifts attention from the material of things to the space that, though less visibile, exists and accommodates us. If reality is a spectre, how should we define the field of theoretical investigation or design? How should we redefine the notion of context if the spectre that informs it, by its definition, exceeds boundaries, renders them fluid, ambiguous and mobile, its presence like a variable field of energy being a 'stain of place'?[34] From a strict sense of context, we need to shift to the notion of space. To quote Anthony Vidler, 'space, in contemporary discourse, as well as lived experience, has taken on an almost palpable existence'.[35] What emerges from *The Architectural Uncanny* by Vidler is the presence of a spectre that hovers and cuts obliquely through the history of recent and past architecture. Essentially, it becomes clear that at the heart of a theory, more than the hard, visible, buildable and identifiable material, is space, which by its nature is intangible and difficult to observe, at most breathable or intuited. If theory is a way of looking at the spectre, then the centre of architectural reasoning becomes antimatter 'where all limits become blurred into a thick, almost palpable substance.'[36] The only thing we deal with is a spectral entity, which for architects is the space seen as a negative of the built reality, which is always missing, always empty, which we cannot in any way touch but on which we can perform operations of observation and transformation. Until now, architectural design has acted through operations on concreteness, to imprint this impregnable fluid with its own position. Today such a way of working is facing, if not its failure, at least its partial inefficiency. Having overcome the form-versus-function debate, the contemporary will be about 'space' versus 'concreteness', with the former term exceeding the latter in quantity, power and quality of use: 'To impute a kind of objectivity to ghosts implies that, from certain standpoints, the dialectics of visibility and invisibility involve a constant negotiation between what can be seen and what is in the shadows.'[37] Spaces rather than architectures, open environments rather than closed buildings – this is what the spectre tells us, leading us towards a space 'abject and ignoble in its ubiquity, endlessly invading the protected realms of society and civilisation … "pure violence", escaping time and geometry to affirm its presence as the expression of the here-now.'[38]

Theory as hauntology recognises that our homes, our cities, our places of affection might also be haunted, and that over time, these places – or we ourselves – may encounter entities that bypass the tangible reality. The most illuminated and transparent buildings can conceal the deepest darkness, just as the ancient, shadowy palaces might harbour the purest innocence. The spectre evoked by Peter Eisenman and the case of the Japanese suburb of Sanya, which vanished while remaining in place, demonstrate how 'being haunted draws us affectively, sometimes against our will and always a bit magically, into the structure of feeling of a reality we come to experience, not as cold knowledge, but as a transformative recognition.'[39]

Theory as hauntology lays the foundation for discussing one of the destinies of contemporary design: to engage with the immaterial aspect of its practice, to test its grip on reality. However, this change of course from the status quo involves addressing three points, which I present as open questions. First, there is a need to compose a theory of the spectre, which is currently absent or confined to the domain of psychoanalysis, and to bring together disciplines, perhaps distant from one another, yet capable of forming alliances to establish a new field of study. Avery Gordon offers us a hint on how to write and envision such a theory, by shifting focus from the spectre as a supernatural entity to the spectre as a 'blind spot' of reality, and by employing the device of theory-fiction, where the scientific and the fictive coexist, exchanging roles without necessarily determining a victor between them. Second, it is essential to consider the forgotten stories and suppressed elements of architectural and urban design culture, to investigate and reflect on the alterations that might occur in temporal and spatial parameters when these are reintroduced into the reality from which they have long been exiled. In this context, declaring that space has returned already dismantles one of the major narratives that animates architectural discourse: the primacy of visible matter and concrete construction, in favour of imaginative forces operating on an entirely different level, yet with equal transformative power within the three-dimensional reality. Yet, this this

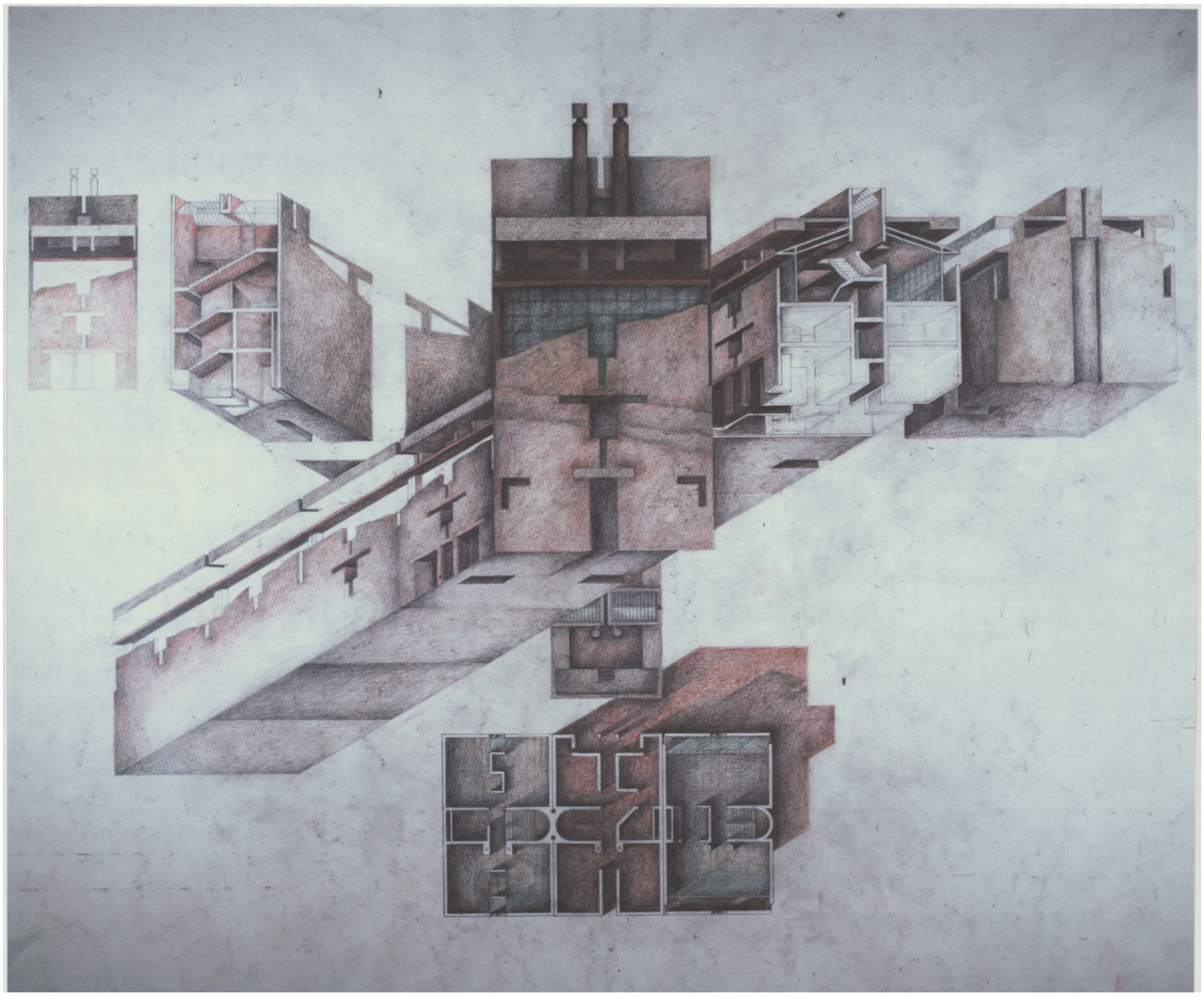

Fig. 4: Raimund Abraham, *The City of Dual Vision*, 1980. Università Iuav di Venezia, Archivio Progetti, Archivio Progetti Collection, Iuav-Ricerche/01/01.

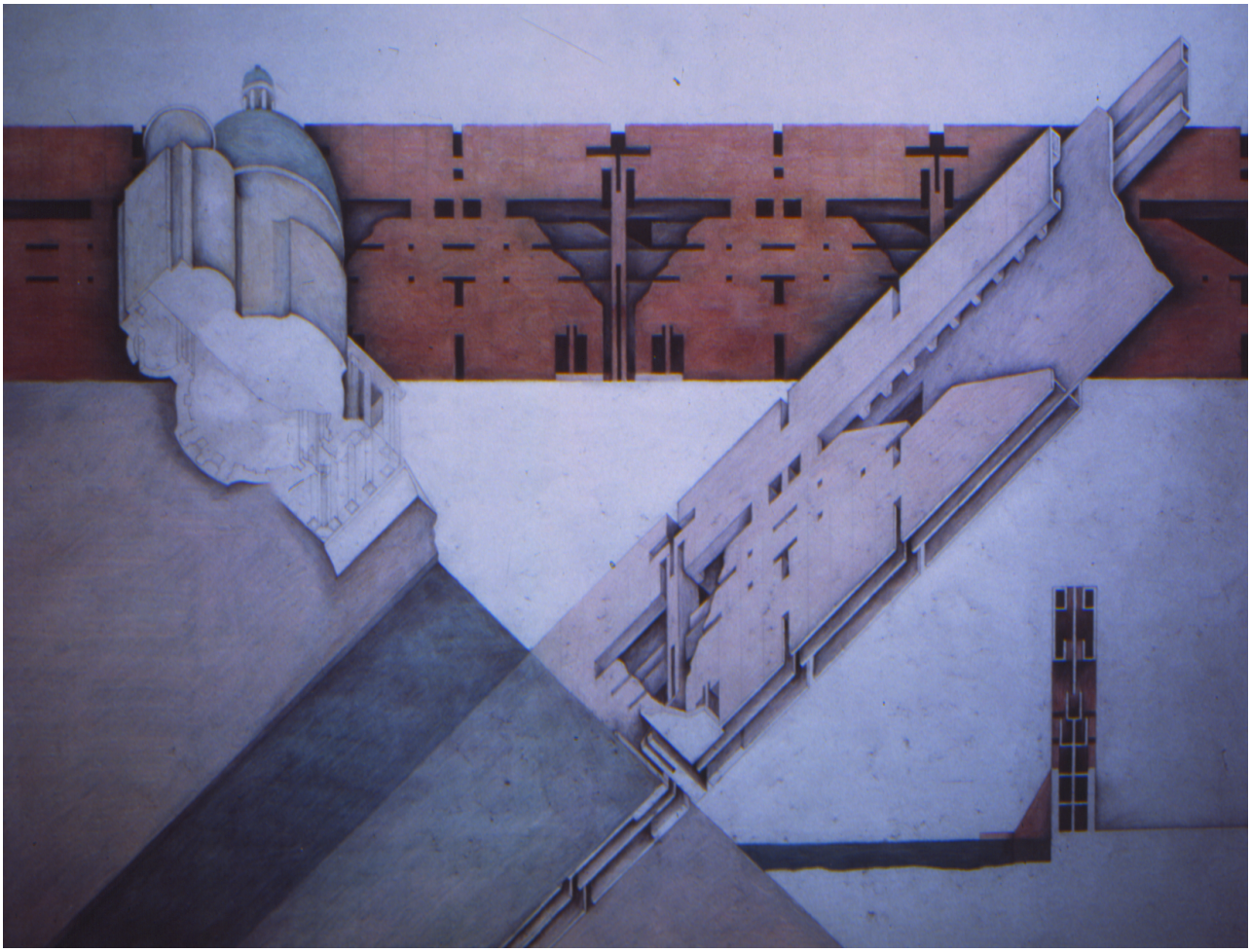

Fig. 5: Raimund Abraham, *The Wall of Lost Journeys*, 1980. Università Iuav di Venezia, Archivio Progetti, Archivio Progetti Collection, Iuav-Ricerche/01/01.

is only one of many possible narratives; others exist that might alter the course of events by resurfacing from a distant or recent past. Third and finally, there is a need to reconsider architectural projects, whether contemporary or ancient, whether they be rooms, buildings, urban fragments, vast territories, or galaxies – not only for their language, which, like a spectre, returns to unsettle us, albeit in a manner quite distinct from Vidler's account, but above all for the absences they evoke, the spectres they conjure before us, and fundamentally, for what they reveal or obscure.

The theory of architectural design thus becomes alternately a *città della duplice visione* (city of dual vision), an optical device used for observing blind spots, by squinting, and a *muro dei viaggi perduti* (wall of lost journeys), a conceptual structure for inhabiting the spectral condition that defines our contemporary world.[40] [Fig.4, 5]

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Notes

1. Jacques Derrida, S*pectres of Marx: The State of the Debt, the Work of Mourning, and the New International,* trans. Peggy Kamuf (London: Routledge, 1994), 100–101.
2. Which, in the words of Freud, gives this idea of theory a certain degree of uncanny: 'uncanny is what one calls everything that was meant to remain secret and hidden and has come into the open.' Sigmund Freud, *The Uncanny* (New York: Penguin, 2003), 132.
3. Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962), 39.
4. Federico Soriano, 'Theory', in *Recycle Theory. Dizionario illustrato | Illustrated Dictionary*, eds. Sara Marini, Giovanni Corbellini (Macerata: Quodlibet, 2016), 612.
5. Karl Marx, *Eighteenth Brumaire of Louis Bonaparte* (1852), quoted in Derrida, *Spectres of Marx*, 117.
6. 'The contemporary is he who firmly holds his gaze on his own time so as to perceive not its light, but rather its darkness. All eras, for those who experience contemporariness, are obscure. The contemporary is precisely the person who knows how to see this obscurity, who is able to write by dipping his pen in the obscurity of the present.' Giorgio Agamben, *What is an Apparatus? And Other Essays* trans. David Kishik and Stefan Pedatella (Stanford: Stanford University Press, 2009), 44.
7. Avery Gordon, *Ghostly Matters: Haunting and the Sociological Imagination* (Minneapolis: University of Minnesota Press, 1996), xvi.
8. Ibid.
9. 'The "uncanny" is not a property of the space itself nor can it be provoked by any particular spatial conformation; it is, in its aesthetic dimension, a representation of a mental state of projection that precisely elides the boundaries of the real and the unreal in order to provoke a disturbing ambiguity, a slippage between waking and dreaming.' Anthony Vidler, *The Architectural Uncanny: Essays in the Modern Unhomely* (Cambridge, MA.: The MIT Press, 1992), 11.
10. Gordon, *Ghostly Matters*, xvi.
11. Sara Marini, 'Magic', *Vesper. Rivista di architettura, arte e teoria | Journal of Architecture, Arts & Theory* no. 6 (Spring–Summer 2022), 7, https://doi.org/10.1400/288552.
12. This is the thesis contained, for example, in David Wang, 'Prediction in *theoria*: towards an interdisciplinary range of theories related to architecture', *Architectural Research Quarterly* 10, no. 3–4 (December 2006): 263–73, https://doi.org/10.1017/S1359135506000376.
13. The quote is taken from the Italian edition of Avery Gordon's book and is not present in the American version. Avery Gordon, *Cose di fantasmi: Haunting e immaginazione sociologia* (Bologna: DeriveApprodi, 2022), 11. The English translation of this and other quotations from the Italian are by the author.

14. Gordon, *Ghostly Matters*, 55.
15. Vidler, *The Architectural Uncanny*, xiii.
16. Francesco Dal Co, ed., *10 immagini per Venezia* (Rome: Officina edizioni, 1980), 22, 25.
17. Peter Eisenman, 'Progetto per Cannaregio Ovest', ibid., 65.
18. Ibid.
19. Vidler writes of the uninhabitable houses as haunted by vacuum: 'They seem not to be houses, or at least habitable; their emptiness suggests that the civilization that once inhabited their strangely configured rooms has long disappeared.' Vidler, *The Architectural Uncanny*, 121; Eisenman, 'Progetto per Cannaregio Ovest', 65.
20. 'I was Manhattan's ghostwriter', writes Rem Koolhaas at the beginning of his manifesto to describe his theoretical action. Rem Koolhaas, *Delirious New York: A Retroactive Manifesto for Manhattan* (New York: The Monacelli Press, 1978), 11.
21. Gordon, *Ghostly Matters*, 194.
22. Shirley Jackson, *The Haunting of Hill House* (New York: Penguin, 2013), 56.
23. Gordon, *Ghostly Matters*, 41.
24. See for example Mike Davis, *City of Quartz. Excavating the Future in Los Angeles* (New York: Verso, 1990).
25. 'The ghostly matter is itself a historical materialism with its own particular mode of causality that does not usually look very much like context, influence, reflection. It looks like a structure of feeling.' Gordon, *Ghostly Matters*, 198.
26. Ibid., 166, original emphasis.
27. Matthew Fuller and Eyal Weizman, *Investigative Aesthetics: Conflicts and Commons in the Politics of Truth* (London: Verso 2021).
28. Nakamori Hiroki, *Shissō no shakaigaku: shinmitsusei to sekinin o meguru shiron* (Tōkyō: Keiō Gijuku Daigaku Shuppankai, 2017), 66. Translation: author.
29. Missing Person Search Support Association of Japan, https://mps.or.jp/english/, accessed 15 April 2024.
30. Nee Brett, 'Sanya: Japan's Internal Colony', in *Bulletin of Concerned Asian Scholars* 6, no. 3 (1974): 12.
31. Ibid., 13.
32. Léna Mauger and Stéphane Remael, *The Vanished: The 'Evaporated' People of Japan in Stories and Photographs* (New York: Skyhorse Publishing, 2016), 11.
33. *Perfect Days*, director Wim Wenders, 2023.
34. Mark Fisher, *Ghosts of My Life: Writings on Depression, Hauntology and Lost* Futures (London: Zero books, 2022), 164.
35. Vidler, *The Architectural Uncanny*, 167. Further on, the author suggests the construction of spatial maps: 'a general map of spatial forces that stretch from the building to the city and thence to entire territories.' Ibid., 172.
36. Ibid., 225.
37. Gordon, *Ghostly Matters*, 17.
38. Anthony Vidler, *Warped Space: Art, Architecture, and Anxiety in Modern Culture* (Cambridge MA: The MIT Press, 2009), 130–31.
39. Gordon, *Ghostly Matters*, 8.
40. The two expressions are taken from Raimund Abraham's project contained in *10 immagini per Venezia,* ed. Francesco Dal Co.

Biography

Alberto Petracchin is an architect and research fellow in the Department of Architecture and Arts at Università Iuav di Venezia. He is part of the editorial staff of the scientific, class A journal *Vesper: Rivista di architettura, arti e teoria* | *Journal of Architecture, Arts and Theory*. He is part of the research unit of the national research project PRIN 'Miserabilia'. With Professor Sara Marini he curated the exhibition *Giancarlo De Carlo: The Open Work* (2025) and is author of the accompanying book *Giancarlo De Carlo: The Open Work* (2025). His research is dedicated to the investigation of contemporary architectural design theories and forms of authorship.

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Footprint is grateful to our peer reviewers, who generously offered their time and expertise. In this issue, the following papers were peer-reviewed: 'A Compass of Architectural Theories in the Tower of the Winds', 'In Defence of Soft Pragmatism: Embracing the Myriad Modalities of Theory', 'Epistemic Horizons: Embracing Tacit Understanding and Generative Potential in the Appraisal of Knowledge', 'The Anxiety of Appraisal'.

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