

WHAT, IF
ANYTHING, IS
A RABBIT?

KARI JORMAKKA, ARCHITECTURE THEORIST
• GEDENKSCHRIFT

Gareth Griffiths & Dörte Kuhlmann (editors)

DATUTOP 39

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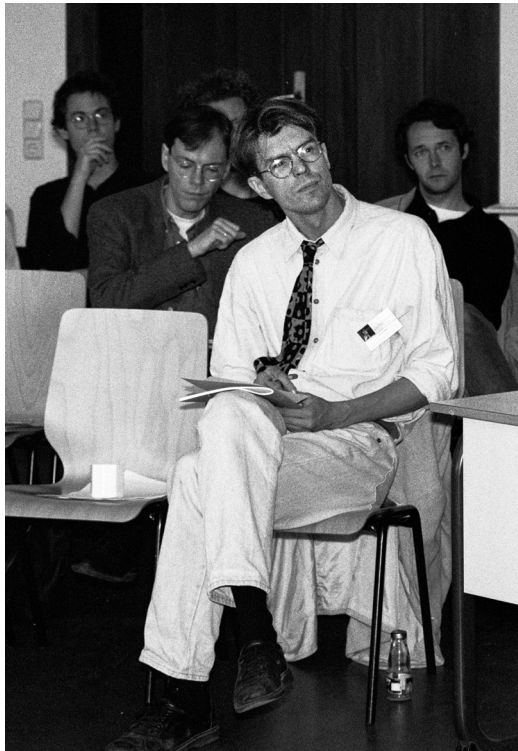
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Kari Jormakka at the 7th International Bauhaus Colloquium, "Techno-Fiction", Weimar, 1996, in the workshop "The criticism of technological reason". Photo: Harald Wenzel-Orf.

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INTRODUCTION: “WHAT, IF ANYTHING, IS A RABBIT?”

Gareth Griffiths and Dörte Kuhlmann

Do I contradict myself?
Very well then, I contradict myself,
(I am large, I contain multitudes)
Walt Whitman¹

It was the summer of 1996, and a tall young professor with a distinct mop of hair was finishing up his lecture series on architecture history at the Bauhaus in Weimar. Just as the lecture was drawing to a close, and while still standing on the podium, he bent forward towards the audience, ripped off his bow tie in an overly theatrical manner, straightened himself in a sort of revolutionary pose and exclaimed in a loud voice:

Tällaisina aikoina...
tutki tarkkaan miten rakennelma on tehty
vain jotta voisit sen nopeasti kumota.
Älä rakenna muuta
kuin barrikadi.

Since nobody in the audience understood Finnish, he then translated the words into German. Part of a poem by J.P. Takala written at the height of the student rebellions in the late 1960s, in English the lines read:

In times like these...
study carefully how the structure is made
because only then could you quickly push it over.
Don't build anything else
than a barricade.²

As the professor then tried to sneak out of the auditorium, the whole body of around 300 students rose to its feet to give him a standing ovation that lasted several minutes and there was also even some foot stomping. Few of those present on that day, however, were aware that the professor in question, Kari Jormakka, had at that time been travelling between Weimar and Chicago in the US on a weekly basis. He held simultaneously two positions as a professor, one in Weimar and the other at the University of Illinois at Chicago (UIC), though he had broken regulations in doing so. His contract in the US did not allow him to take any full

position elsewhere, and so he had to operate clandestinely. He was actually used to this, as he had done the same thing previously, secretly holding simultaneously two teaching positions at Ohio State University (OSU) and UIC. To friends he would justify his behaviour by facetiously insisting that he could only eat food served at a high altitude in little plastic trays and wrapped in aluminium foil. And while most people under these conditions would suffer from jetlag, he suggested that it is best not to attempt to adapt at all. While in Weimar, he would stay up at night playing the piano in the Bauhaus building, much to the dismay of the security staff, and once accompanied students plastering posters around the city in the dead of night. He was living in his own time zone and daily routine seemed rather a torture to him.

Kari's unorthodox lifestyle changed somewhat in 1998 when he was appointed full professor and head of the Institut für Architekturtheorie at the Technische Universität Wien – in fact, he was the first person to hold this position in a newly created department at the university. Vienna was in many regards his final destination, despite the fact that he later sought positions in the US and the UK, dying unexpectedly in 2013 at the age of 53. At the time of his death, he had been working on three different book manuscripts. Since completing his PhD in 1992 he had written 12 books, edited or co-edited 16 more and is known to have published at least 110 scholarly papers.

*

It is through wonder that men originally began, and still begin, to philosophize, wondering at first about obvious perplexities, and then... experiencing complexity about greater matters ... Now the man who is perplexed and wonders thinks himself ignorant ... therefore, if it was to escape ignorance that men practiced philosophy it is clear that they pursued knowledge for the sake of knowing and not for the sake of anything useful. (Aristotle, *Metaphysics*)³

Kari's personality was complex and remained something of a riddle even to those who knew him well. His colleagues and students alike lauded him for his formidable erudition and scholarship, not just in the history and theory of architecture, but also in art history, pop culture, film, philosophy, theology, the history of ideas, sociology, anthropology, psychology and the natural sciences generally – all of which turn up in his texts. Yet he was someone who deep down seemed to doubt his own extraordinary erudition. His public persona was that of a consummate *bon vivant*, who made for superb company due to his sociability and dry sense of humour, not to mention being a walking encyclopaedia, confident pianist and polyglot. He was somewhat inclined towards an unorthodox dress sense. He was occasionally elegantly dressed in a white Oxford buttoned-down-collar shirt and dark suit. Yet while occasionally even dressed in the seemingly

obligatory architect uniform of all black, still in his early fifties he also continued to wear sleeveless t-shirts or t-shirts carrying pop-culture references, leather trousers or even a leather suit. These characteristics may even possess theoretical significance in light of his discussions of clothing in reference to the history of architecture, arguing that modern clothing is largely ornamental – and Kari was fond of self-deprecatingly echoing the assertion of the always well-dressed Adolf Loos that clothing and ornamented architecture were a means to hide a terrible or banal reality.⁴

As head of the newly founded Institut für Architekturtheorie in Vienna, Kari gained a position of authority. Yet he was well known for being generous with his time for colleagues and students or anybody dropping in to see him in his university office. Although he claimed to despise meetings, he participated actively in countless conference committees, exhibition committees, competition juries, publishing boards and examination boards – to the point of overwork. He was highly active within his academic field, believing not simply in the autonomy of architecture but in its potential to bring about reform, though he was not a political activist, despite his admiration for Gottfried Semper as an architect infamous for having built a barricade, as alluded to in the quote at the beginning.⁵ Given his tremendous workload and his numerous engagements in different institutions, he was certainly financially secure, but cared little for the trappings of money and status symbols. His only car, a battered old Toyota, which he had bought when still a student in Finland, was eventually seldom used and even had vegetation growing on it.

*

My thinking, like everyone's, has sticking to it the
shrivelled remains of my earlier (withered) ideas.
(Ludwig Wittgenstein)⁶

The Department of Philosophy at the University of Helsinki had once been a bastion of Hegelianism, in the sense of philosophy which understands itself as a reflection of its times, but already well before Kari started his studies there in 1978, it was a centre of analytic philosophy, in particular logical empiricism. The major figure there was Georg Henrik von Wright, who had been a favourite student of Ludwig Wittgenstein at the University of Cambridge in the UK, and became his successor as professor there as well as his literary executor before eventually returning to Helsinki.⁷ But as is well known, despite analytic philosophy's attempt to overcome metaphysics through the logical analysis of language, the Wittgenstein connection has its "mystic" element: the traditional philosophical method of essentialistic definition conceals from view more than it reveals, and that beyond the world of facts are values, aesthetics and religion. Still, such an education in analytic philosophy and the philosophy of science and its goal of conceptual clarity – epitomised by the central concern for stating the *necessary and sufficient conditions* for any concept – made Kari somewhat suspicious towards

so-called Continental philosophy and its key thinkers such as Martin Heidegger – whose phenomenology and play with etymology as an epistemological tool he sometimes gently mocked for its apparent esotericism. For instance, as Kari saw Heidegger’s famous discussion of a Greek temple in relation to its surroundings and art-object-like nature:

The specificity of a place, its *genius loci*, rather than being originary, may in fact be radically secondary or even parasitical... To respond to the uniqueness of a site, an architect needs to insert universal, alien elements that function as a normalizing grid recording and celebrating particularities and idiosyncrasies. What is self-evident is that there is not just one kind of difference, but any number of differences or alien elements... This means that the *alethia* of unveiling produced by the work of architecture is always ambiguous, it is the *‘Offenbarung des Gottes oder des Ungeheuren’* [Revelation of god or monster]. A Greek temple may show the truth of the landscape and it may also let God appear – or it may reveal something quite different.⁸

Indeed, when he later started referring more to the thinking of Heidegger, it was in terms of a theory of ritual rather than an empathic experience of place or the essence of being-in-the-world as dwelling. Still, it could be argued that Kari’s writings fall within distinct threads; his early writings are often distinctly formalist in attitude, abstract and devoid of discussions of the sensory aspects of architecture, but soon picking up more on the idea of historical genealogy associated with post-structuralism, especially Michel Foucault, but also anthropological-sociological theories such as “habitus” of Pierre Bourdieu, ritual by Mircea Eliade and political theory by Hanna Arendt, and then phenomenology of a more materialist sort associated with Maurice Merleau-Ponty, embodied cognitive models by George Lakoff, Mark Johnson and Maxine Sheets-Johnson, and “gender as performativity” by Judith Butler.

Kari’s mature texts often have a form comparable to traditional storytelling, drawing vast historical arcs with reiterations and detours along the way, though still tied to the idea of theory as something simultaneously analytical and speculative; for instance, his essay “The dark side of architecture” (possibly the last he ever completed, and is published posthumously)⁹ is ostensibly an alternative history of the origins of architecture. It starts with Vitruvius’s famous tracing of the origins of both language and architecture to savage men gathered around a fire, from which emerged the first shelters – the architecture-as-shelter paradigm persisting throughout history, as found in the writings of Abbé Laugier, Otto Wagner, and Le Corbusier. In full knowledge that none of this can be proved conclusively, Kari then sets out alternative “dark” histories, from biblical-backed

arguments related ultimately to the effects of human sin, to paradises of nomadic life, to the advent of private property and defence, to forms of domestication and agricultural revolution, female oppression, torture, clothing and masks, before leading to Georges Bataille's claim that the origins of architecture are found not in the temple but in the prison. But beyond simply a fascinating pursuit of knowledge for its own sake, Kari concludes with references to the persistence of such viewpoints in contemporary architecture, for instance that of Rem Koolhaas and Bernard Tschumi, who also linked architecture to arguments about violence and power – Kari's conclusion being that such viewpoints are not inevitable, but merely yet one more construction.

*

Don't think twice, it's all right. (Bob Dylan)¹⁰

Kari's PhD thesis, *Constructing Architecture: Notes on Theory and Criticism in Architecture and the Arts* (1991), was a rational conceptual analysis of the numerous Western classical theories of aesthetics and art, those intent on defining the ontology of art and architecture. He himself defended intentionalism, arguing that only when something is taken to have been intentionally presented as a meaningful sign or gesture, can it be read as meaningful, and that works of art have no existence independent of an interpretation and something to be interpreted.¹¹ When preparing his thesis while teaching at Ohio State University, he had the opportunity to argue his views with various colleagues, notably Doug Graf, Jackie Gargus, Rob Livesey, Jeff Kipnis and Peter Eisenman – who intrigued Kari for his intellectual and formalist approach to architectural production – as well as seeking out Arthur C. Danto in New York, who remained for Kari a paragon in an analytical-philosophical approach to art theory.¹²

At first sight, Kari's position seemed to mark him out as a reactionary in two senses: firstly, in seemingly denying the role of function and the users and their experiences in any building other than how they influence form, and secondly, even from the intellectual standpoint, in defending authorial intention rather than positions held by a panoply of theorists, including Monroe C. Beardsley and William K. Wimsatt, Roland Barthes and Jacques Derrida and postmodernists, who challenged the centrality of the author in any interpretation of a text or artwork, and seeking a social agency for art beyond that which it previously held as an iconic medium for religious belief.¹³

In brief, Kari found fault with various kinds of positions regarding the ontology of art and architecture, principally the idea – derived from Biblical exegesis – that an artwork is a unique, individual whole with a profound meaning akin to the work of the Creator. In challenging Alberti's definition of beauty as “that reasoned harmony of all parts within a body, so that nothing may be added, taken away, or altered, but for the worse”,¹⁴ Kari argued that it is hard to believe that

any physical object could be so perfect, thus leaving us with only two alternatives; either there can never be beauty in architecture or else architectural masterpieces are not material things at all, but rather belong to a world of Greek necessity and perhaps Freudian dreams.

He was equally critical of reader-oriented pluralism, text-oriented pluralism, conventionalism and the principle of charity, whereby an interpretation would make the artwork as good as it can be. Instead, he argued that a work of art (and architecture) is a conceptual construct, which is determined only when an interpreter indicates which parts of the material bearer of the work are parts of the work of art.¹⁵ The electrical installations or ductwork tend not to be considered part of the “architecture” unless intentionally so, as with Piano and Rogers’ Pompidou Centre in Paris. Hence, one might argue that the architectural work is not reducible to the building itself and its functional use. Taking the example of Alvar Aalto’s Finlandia Hall in Helsinki, the Carrara marble plates that clad the facades had become notably curved over time due to the influence of air pollution and drastic changes in temperature, and consequently were replaced with new flat ones so as to “maintain the building’s architecture”, that is, the *pristine intention*, rather than seeing it as part of the building’s patina, which might add to the experience of the building.¹⁶

Kari saw drawings as being just as much part of architecture and its history as finished works – and as conceptual constructs existing independent of individual subjects.¹⁷ For instance, Mies van der Rohe’s glass skyscraper project for Berlin from 1921 exists only on paper, yet is unquestionably classified as architecture with “equal rights” as, say, Le Corbusier’s Villa Savoye, in being a statement about verticality, transparency and reflection, unadorned geometrical form, contrasting in relation to other surrounding buildings, as well as about the moral effects of glass architecture and other ideas that occupied architectural theory at that time.¹⁸

In problematising essentialist theories of architecture, Kari even challenged the Vitruvian principles of *firmitas*, *utilitas* and *venustas*, giving as an example English Vitruvianist Geoffrey Scott’s seemingly obvious claim that “thrust and balance, pressure and support, are at the root of the language which architecture employs.”¹⁹ In reply, Kari makes the following analogy:

On my desk there’s an eraser which is virtually indestructible and remarkably strong compared with the floor on which the desk is standing. In fact, two thirds of the rooms in the architectural theory institute building can’t be entered at all because the floors are too weak. Despite its lack of structural soundness, the building is still considered architecture, so much so that it is under *Denkmalschutz* [i.e. a listed building].²⁰

Kari also went against the standard canonical dialectical *Zeitgeist* thinking in art and architecture theory that looked for similarities between contempora-

neous movements in architecture, philosophy and science, as for instance with Erwin Panofsky's consideration of Scholastic philosophy and Gothic architecture as expressions of the same spirit or Sigfried Giedion's belief that the architecture of Borromini, the musical compositions of Bach and the mathematics of Pascal could all be called Baroque in the same sense, and similarly the Functionalist architecture of the Bauhaus and Einstein's post-Newtonian physics and logical positivism in philosophy. That is to say, these are schools of thought that – again taking ultimately from biblical exegesis – project a known pattern of meaning on to an object of interpretation.²¹ In defence of his argument, he was even fond of drawing out arguments *ad absurdum*:

For the past two thousand years theologians have debated about what the Fall exactly involved, even though Eve is usually blamed for the first destructive and human act. One of the more imaginative interpretations is in the *Gnostic Gospel of Philip*, where the tree of knowledge of good and evil refers to the seductive thinking in dual opposites or the setting up of deceptive division and juxtapositions between things that are inseparable. If we can take the word of the Bible, such thinking cost mankind the paradise, but it gave us agriculture, murder and architecture; ultimately it might bring about the end of the world.²²

But in questioning the idea of a *Zeitgeist*, Kari also questioned the way art and architecture history were commonly being written. Such canonical histories are largely concerned with the production of continuities and similarities by referring to earlier works. He became concerned with the differences between the various currents in architecture, asking what qualities each work had to fulfil in order to be recognized as an architectural work at a particular epoch. This was the premise of Kari's book *Geschichte der Architekturtheorie* (2003), which even became a best-seller for books on architecture in German-speaking countries, selling more than 3000 copies and running to three editions. In this "introduction to architecture theory" he did not try to provide a comprehensive chronological history of architecture theory in the tradition of say Hanno-Walter Kruff's classic *Geschichte der Architekturtheorie*.²³ While the contents of the book are somewhat chronological, the important novelty is in its merging theoretical concepts and philosophical discourses with certain recurring architectural design strategies – order, ritual, inversion, copy, proportion, illusion, reason, type, space and character – thus trying to develop a loose narration regarding the emergence and death of these crucial ideas in the architectural discourse. For instance, in his discussion of type, he critiques how architects, such as Aldo Rossi, in a sense oversell the power of typology:

...types are written as universals that cannot be invented (or at least attributed to an individual), but can only be discovered or displayed. ... Insofar as types are universals and prerequisites for identification and interpretation, they cannot constitute artistic meaning or value. Therefore, the artistic performance lies in the specifications, which are not included in the type, or in the deviations and modifications of the type, if these are at all understandable. The architect is more like the interpreter of a piece of music than the composer. Typological theory places architecture as art in an area that many theories consider secondary; the detail or ornament.²⁴

*

God made the world out of nothing. But the nothingness shows through. (Paul Valéry, *Ex nihilo*)²⁵

By the turn of the millennium there had been much discussion in academia about the “end of theory”²⁶ itself in architecture – a moment inadvertently marked by the various anthologies published at that time on the history of architecture theory²⁷ – just as there was about the “end of history”, that is, the supposed achievement of an end-point in humanity’s socio-cultural evolution and the final form of human government, where politics had been surpassed by management – a management system that accepted capitalism as some sort of ultimate ethic or natural law.

In the post-theory world, the linguistic turn was seen to be surpassed by a new materialist one, “projective practice”, with advanced computer technology and digital fabrication, transforming the role of the architect, by turning buildings into media facades or by offering architects the opportunity to use such technology to bring back a sense of ornament without, ironically enough, betraying a modernist ethos,²⁸ while once more putting themselves in a new elevated position of authority. Into this mix could even be fed political qua management concerns, particularly regarding ecology and climate change as well as sustainable development and material savings, if not necessarily participatory design.

Yet even solutions to such a problem have a theoretical aspect, as for instance with the different positions over whether such problems can only be solved by even greater expanded technology, the argument of so-called “accelerationism” – with both leftist and rightist variations, the former arguing that it will lead to greater social emancipation and the latter to a post-human technological singularity.²⁹ Kari was critical of the teleologies being pushed, especially in the name of technology. He wrote, for instance, that techniques that had been developed for the automation of production in factories could hardly offer an adequate basis for the development of intelligent domestic environments because such automation “lacked intentionality”, but that if one were to accept the notion of the technological determination of architecture (e.g. the lift brought about the skyscraper and

the escalator and air-conditioning together brought about the shopping centre),³⁰ then such a time may yet be coming and that these technologies will, if successful, fundamentally change the way we think about the human body, spatiality and buildings, our physical environment assuming quasi-animistic powers and in so doing marking “the end of architecture as we know it”.³¹

Kari would find himself in conferences, often also as a moderator, where a certain trend would be characterized as being not merely a *Zeitgeist* but a deeper inevitable truth or even determinism.³² In such avant-gardist circles, the role of the historian-theorist can be potentially dubious, called upon to legitimate current avant-gardes, to say a few prefatory philosophical remarks, or to offer an operative criticism – in Manfredo Tafuri’s sense of “designing past history, projecting it toward the future”.³³ Still, Kari would invariably offer a critique of the logic of such projective theories. In one instance, for example, he challenged avant-gardist architect-theoretician Greg Lynn’s reasoning in favour of “animate form” in architecture, the architect having argued that a boat is animate because multiple moments of time are implicitly present in the shape of the boat. Kari facetiously countered that one wonders if this is the case only with boats that perform well or with all boats and by extension any object whatsoever:

If the shape of the boat hull contains the future moments when we are sailing into the wind as well as another moment when we are sailing downward, does it also contain the moment when the keel hits an underwater rock?³⁴

Though countered using humour, his point was that if one wishes to say that a boat or a building should respond to environmental forces, then “we have to be able to privilege certain kinds of responses as appropriate, correct, natural or desirable, or else the proposition becomes trivially true of any object whatsoever. However, it is difficult to determine the functions that an object is supposed to perform. ... The problem is that Lynn’s point of view literally animates everything.”

Hence Kari’s own stance towards architects and students alike theorizing their own works was to state that the theory itself was neither right nor wrong, and certainly not universal, simply a matter of something that focused the real work of solving design challenges, and thus for which it certainly had some merit.³⁵ In practice, however, he would note that architects and students tended to oversell the theoretical underpinnings of their design by making claims that were not necessarily logical, yet still producing interesting architecture:

Even though certain ontological commitments might be crucial to the way architecture is constituted at different times, they are hardly ever the result of any conscious deliberation or argumentation, rather architects and theoreticians drift into various positions while dealing with very different problems altogether.³⁶

Kari's book *Design Methods* (2007), was part of a book series aimed at the practical architectural design process, especially students, but in admitting that the universal validity that such methods often claim are nothing of a sort, the "self-help guide" became more a history of past manifestos, the student reader blushing encouraged to see it as a "tool box".³⁷

But what should have placed him closer to the thinking about "animate form" was his critique of the notion of architecture as "the big sister of sculpture", that is, architecture as the art of space – pure, timeless platonic voids experienced through vision. And he was equally critical of those who critiqued that maxim, such as Robert Venturi and Denise Scott-Brown. Instead, he wished to highlight architecture's communicative aspects, and defending a concept of architecture that involves active behaviour and multimodal perception, even arguing that there is "no architectural space without motion."³⁸

Kari explored the idea of movement in architecture in numerous essays as well as the book he edited *Absolute Motion* (2002), his own book *Flying Dutchmen: Motion in Architecture* (2002) and its extended follow-up *Genius Locomotionis* (2005).³⁹ The impulse for these books was again Kari's long-standing concern for the ontology of architecture, in this case momentarily taking seriously Schiller's over-used dictum that "Architecture is frozen music". In essence, he asks what in fact are the static and dynamic aspects of these two arts. Taking a cue from Henri Bergson, his point is that continuity of a melody is nothing more than the continuity of an experience requiring duration. As such, the movement in music could be just as subjective as in architecture.⁴⁰

Kari went on to explore the idea of movement in architecture in two somewhat separate arguments. Firstly, he extended to a logical conclusion Vitruvius's inclusion of his own engineering works – war machines, clocks, and waterworks – in his treatise on architecture, that is, a theory of architecture not simply as space and place but of time, technology and performative action. This has a modern counterpart in the viewpoints of such key figures as Barthélemy Prosper Enfantin of the Saint-Simonist political movement, Filippo Marinetti, Paul Virilio and Archigram, whereby architecture as a theory of construction had failed to incorporate the notion of mobility. The problem of the theory hangs on the difference between buildings that literally move and those with dynamic and organic forms evoking growth or an architecture that becomes undifferentiated from landscape, leading ultimately to decentred – albeit technology-derived – motion-based design methods that do not rely on the subjectivity of the author, simply responding to the socio-political-cultural surroundings, or even planning and building regulations extrapolated with an iron logic *ad absurdum*, as in so-called Dataspaces in the works of MVRDV.⁴¹

Secondly, and distinctly less literal, was Kari's inclusion in the analysis of movement of the thinking of Merleau-Ponty and Sheets-Johnson, in refusing to separate the bodily and the mental. In the case of Merleau-Ponty, instead of bifurcating existence into categories of subject and object, mind and matter, he

saw it as a fundamentally intertwined process of ongoing perceptual unfolding within an overarching milieu he called the *Flesh*, and for Kari that meant a means for experiencing and designing architecture that draws from our shared embodiment. In the thinking of Sheets-Johnson, it means that the roots of thinking are to be found in the body, and that, for instance, stone tools, burial remains and cave paintings attest not just to various human behaviours, such as upright posture and locomotion, tool-making, and pictorial depiction, but also to specific tactile-kinaesthetic concepts subtending the behaviours, such as the concepts of edges, death, numbers or of oneself as a sound-maker.⁴² As Kari concludes:

The actions of the body require certain kinds of spatial arrangements to be possible at all. Some of these arrangements may be natural, while others are the result of human decision-making and may be called architecture. Instead of separating categorically between the singular body and its environment, it seems logical to adopt an ontology based on the animate form in the abstract, that is, the functions or phenomena that take place, without any precise localization or identification of the subjects.⁴³

*

Thinkers such as Nietzsche and Derrida... explicitly assert that humans come equipped with 'blind spots'. Our vision, they suggest, is not only limited and perspectival but positively distorted by the operations of desire, the will to power, the tyrannies of ideology, and the vagaries of language. One quite prevalent modern mode of 'seeing' that separates us from and, to some extent, blinds us to the Greek philosophers is what we might call 'looking with suspicion'. For ancient *theoria* was rooted in a radically different orientation to the world: *theoria* involved 'looking with wonder', an activity in which reason works in conjunction with reverence. (Andrea Wilson Nightingale)⁴⁴

In 1991, while still a PhD student, Kari was commissioned to write a history of the school buildings of the Finnish city of Espoo, in commemoration of the centenary of the city's board of education. A review of the book by a distinguished Finnish architecture historian was titled "An anarchist in the school".⁴⁵ Those who had commissioned the book had expected both a commemoration and archival recording of the city's school-building achievements, but the critic was keenly aware of Kari's reading against the grain of the school building typology. While the expected mentions of the influence of Taylorism and Fordism on the school schedules and layouts of the building were included, Kari also took a further critical stance towards the ultimate purpose of schools, even finding an analogy

between schools, their rituals, and the “humanist” use of brick in the buildings:

Brick has long been a typical material in military barracks and schools, perhaps because it can be thought of as imitating an individual's placement within the community as a small building component. (...) In such forced communities what becomes emphasised are the group's cohesion mechanisms, such as hierarchy, the search for scapegoats and enemies, and various kinds of replacement behaviour such as vandalism.⁴⁶

A few years later, Kari would expand upon themes emerging from the book on schools to propose an entire theory regarding the conceptual origins of architecture, *Heimlich Manœuvres: Ritual in Architecture* (1995). Kari became critical of the “linguistic turn” and semiotics in general, in that he argued that representation and communication are only secondary functions of architecture, and that social and cultural meanings are imparted through the unconscious use of architectural space, so-called performatives. Meaning in architecture, he argued, is grounded on the interaction of the ritualized body with conventions inscribed within the social body, but that such interaction requires a place in space and time, namely architecture – and that at its best such architecture may bring about positive social transformation.⁴⁷ The concept of performatives was derived from the philosopher J.L. Austin; utterances such as naming, promising and betting, which do not describe a state of affairs and cannot be true or false, as in the pronouncement “I name this boat Elizabeth”.⁴⁸ Following ideas from anthropology rather than linguistics and semiotics, with key figures such as Mauss, Lévi-Strauss, Eliade, and Girard, Kari argued that performatives are a kind of verbal ritual, and hence one can discuss the performative or ritual dimensions of built structures as the architectural mediation or constitution of the world as lived.

Kari himself characterized his approach as “a form of social or ritual constructionism”.⁴⁹ He had in mind not simply the deliberate, solemn ritual acts synonymous with religion, and hence the layout of religious buildings, but rather the hidden aspects of architecture that frequently escape our attention and yet are actively engaged in shaping and maintaining our social and psychological patterns, much in the same way that linguistic conventions necessarily prejudice our thoughts. In the broadest terms, he was interested to understand how the built environment, in his words, “partakes in the ritual [i.e. non-linguistic] construction of a banal life-world”.⁵⁰ Indeed, he emphasised how knowledge or information is generally antithetical to ritual; firstly because it endorses social hierarchy, and secondly those who partake in a ritual knowingly accept obligations; to take a well-known example, in ritualised sacrificial killing the moral responsibility for the death shifts to the divine realm, those actually carrying out the killing being seen as virtuous rather than murderers.

But considering all his interest in ritual and place, Kari never attempted to draw parallels between his own position and theorists promoting a normative figurative architecture such as Christian Norberg-Schulz or Christopher Alexander. On the practical level, he was providing his students with a deep understanding of history and historiography – authorship and authority – and yet also a critical awareness for contradictions and imperfections in the discourse. He thus often spoke in favour of a kind of architectural gesture that is closer to modern art and acts along the lines associated with Situationism. For example, in championing the work of the Vienna-based architecture studio *feld72*, some of whose projects take on a more artistic-political-interventionist stance similar to the *détournement* projects of the Situationists, he argued that ultimately “the essence of architecture is nothing architectural”.⁵¹

His approach in *Heimlich Manœuvres* undoubtedly brings to mind the writings and theories of both Michel Foucault and Pierre Bourdieu. Only the latter, however, figured in the book, and indeed elsewhere he even contested Foucault’s famous theory of *heterotopia* as applied to architecture, arguing that heterotopias cannot be absolutely other, but only within a specific discourse. For instance, Foucault’s often cited example of Jeremy Bentham’s panopticon prison may constitute a heterotopia in relation to the rest of society but in itself is an absolute spatial homotopia because its pervasive visibility prevents and excludes otherness.⁵² And beyond the panopticon as an illustration of centralised power and surveillance, Kari expanded the discourse to other examples, such as the almost contemporaneous Panorama as popularised by Robert Barker and Patrick Geddes’s Outlook Tower, which allowed the general public opportunities to observe at a distance their own surroundings, thus returning the architectural phenomena back to Foucault’s ideas about free will in the face of power.⁵³

It was the positioning of architects in society in positions similar to the god-like status of artists that drew Kari to the writings of Bourdieu, especially his so-called *field theory*, with its widely cited concept of *habitus*, which tries to articulate the conundrum between social structure and individual agency.⁵⁴ Early on, Kari had been critical of Marxist theories of art, and their propensity to interpret artistic phenomena more directly as the ideology of a ruling class: instead, he favoured Bourdieu’s more nuanced position, whereby what happens in an artistic field is more linked to that field’s specific history, and thus it is difficult to deduce from such a field the state of the general social world at any given time. Ultimately, however, Kari understood that certain avant-gardist architects – reappropriating the well-known Marxist maxim – do not want so much to explain or understand the world as much as they want to change it, and in their own image. Theory then falls more in line with the thinking of Deleuze and Guattari, that philosophy qua theory is a creative, if not also a critical, act, an act of resistance.

And yet Kari was critical of what exactly was being changed. For instance, he challenged claims rejecting classical “Albertian perspective” in favour of process-driven parametric design and the “untamed chance” the latter would supposedly

engender. He countered that, for instance, even one of the most celebrated examples of avant-gardist topological design, UN Studio's Möbius House (1998) functions in rather conventional ways, adding: "The origin of architecture has a lot to do with the creation and protection of private property, and designs that challenge 'Albertian perspective' seldom change such issues."⁵⁵ In a similar Bourdieuvian vein, revealing how the practices of individual agents are related to the internal logic of their field and in turn to the field of power, Kari was fond of the witty statement of Karl Kraus pointing to the superfluous aspects of the architectural discourse: "Modern architecture is a superfluity created out of the correct perception of a lack of necessity."⁵⁶

Perhaps Kari's most well-known attempt at critiquing the claims of architectural theory was his various writings against the functionalist theory of architecture, culminating in his 2011 book *Eyes That Do Not See – Perspectives on Functionalist Architectural Theory*. While the various proponents of functionalism, prime among them Le Corbusier and Walter Gropius, argued a functionalist doctrine centred on principles informed by rationality, science and humanism generally, Kari argued that their dogmatic theories could actually be described as authoritarian, relying on a premodern rationality, in particular Aristotelian essentialism, and its later adherents such as St. Thomas Aquinas. This can be summed up, he argued, in the Aristotelean maxim that there can be real knowledge only about essences: there can be no science of individuals as individuals since individual cases are infinitely various, whereas essences are eternal, immutable and certain. For instance, Ludwig Mies van der Rohe, an avid reader of Aquinas, opined that "the questions concerning the essence of things are the only important question."⁵⁷ He likewise quotes Mies's claim that functionalism "has a scientific character, but it is not science". A general point driving Kari's argument is the questioning of such universal proclamations for architecture, and he noted, somewhat polemically: "Architectural theories can be regarded as a strategy of self-presentation of individuals and movements to the target groups, the potential clients." And elsewhere:

The most persuasive architectural theories today continue to reshuffle images that have been around for the longest time, and these images are remembered or reenacted almost in the manner of a ritual, rather than utilized for thinking. To paraphrase Jorge Luis Borges, the history of architectural theory consists of the diverse intonation of a few metaphors.⁵⁸

In one of his most caustic critiques, Kari chastised the cynicism of architects in pursuing their ideas irrespective of the authoritarian regimes prepared to realise them, and concluded on an even sourer note, referring to the idea of "Empire" first envisaged at the turn of the millennium by Michael Hardt and Antonio Negri:

If the advanced architecture of today has the best chances of realization when democratic political con-

trols are not active, advanced architectural theory certainly helps in emphasizing apolitical themes, such as ornaments, atmospheres and moods, and grounding their arguments on a universalizing phenomenological or physiological foundation that suppresses social and political differences. Thus, it could be suggested that current architectural theories are nothing more than an opportunistic rationalization of economic necessities in the Empire. Such an accusation, however, would be unfair, for opportunism has always been characteristic of architects.⁵⁹

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“What, if anything, is a rabbit?” [In Finnish: “Mitä, jos jotain, on jänis?”]: the title of this *Gedenkschrift* comes from the title of the last public lecture given by Kari, just a few weeks before his untimely death. It was held in Lappeenranta, his hometown in eastern Finland, and arranged by a group of local architects. It should be noted that despite having left his hometown at the age of 19, Kari still had family ties there and even still followed fairly closely the town’s planning policies. The final text published before his death was a letter to his hometown newspaper arguing why proposed high-rise buildings in the centre of the town would not have the desired symbolic and economic impact the planners and developers imagined.⁶⁰ The title of his lecture was taken from a 1957 paper by biologist Albert E. Wood, who in turn had taken it from a 1908 German paper titled “Gibt es Leporiden?”⁶¹ Wood had been concerned with the difficulty of deciding on the biological classification for the order of lagomorphs: “Unfortunately, there is no good popular name for the order, ‘rabbit’ being also used for those genera of leporids that are not hares. Perhaps ‘bunny’ is the best vernacular name for lagomorphs, for which it is already used at times.” Kari’s lecture notes indicate a different concern with classification:

Even rabbits running in the woods are not naturally present, but just like all the others we can observe or think of are only generated as a result of human activity and classification.⁶²

Kari’s aim here was twofold, firstly to take seriously the viewpoint that all thinking, perceiving and experience contains a theoretical component, epitomized in Goethe’s view that “Every looking becomes a beholding, every beholding a pondering, every pondering a connecting, and so one can say that we theorize with every attentive glance at the world.”⁶³ Then, of course, the rabbit anecdote was meant as an introduction to the application of such thinking in architecture theory. His point is that while an architect may pay attention to, say, a piece of land, the wider landscape, adjacent buildings, orientation, access and so on, a complete description is impossible. Thus, a selection is always made; it is a con-

ceptual construct, determined only when an interpreter indicates which parts of the material bearer of the work are parts of the work of art, as discussed earlier with the example of the prominence given to the marble cladding of Aalto's Finlandia Hall in its interpretation as a work of architecture. So the rabbit stood in for architecture, and Kari's position was a defence of the contingent state of knowledge and the social construction of reality, the pedigree for which can be traced to numerous sources, including Kant's argument that the objects of the external world only become real when the human mind focuses on them, that human understanding is "the lawgiver of nature", Wittgenstein's anti-essentialist view of language, that it is more like a "script for action",⁶⁴ that it is the use of the word "rabbit" that determines its meaning, Berger and Luckmann's social construction of reality, or John Searle's argument about the construction of social reality centring on "institutional facts" dependent only on human agreement, such as money and nation states. The same can be said of Kari's discussion of ritual, with references, as mentioned earlier, to Butler's idea that gender is constructed through performativity, in her words:

(P)erformativity cannot be understood outside of a process of iterability, a regularized and constrained repetition of norms. And this repetition is not performed by a subject; this repetition is what enables a subject... This iterability implies that 'performance' is not a singular 'act' or event, but a ritualized production, ritual reiterated under and through constraint.⁶⁵

As in the above reference to the work of Feld72 and their "performative works", for Kari this was the process whereby people continuously create through their actions and interactions a shared reality, experienced as objectively factual and subjectively meaningful. Theory in its various applications, including architecture, continuously undergoes change. As Kari often argued, in being neither true nor false any architectural theory will have a limited shelf-life and may well return later or be defended as part of an ongoing tradition.

In a couple of his texts, most notably "Theoretical Landscapes" from 2012, Kari outlined his specific concerns in regard to architectural theory. While arguing that there is no stable discipline of architecture and that the term "architectural theory" has been used to refer to radically different attitudes, he singled out three general approaches to the latter: *design theory*, *criticism* and *the philosophy of architecture*.⁶⁶ He gave the example of the writings of Le Corbusier as typical *design theory*, that is, formulating concepts that establish norms for design. *Criticism*, in turn, entails comparing an architect's design theories with their own works or ascertaining patterns and consistencies in the history of architecture, for which he gives the example of Colin Rowe's comparisons between Le Corbusier's villas and those of Palladio. Finally, *the philosophy of architecture* is a wider attitude, or metatheory, investigating the possibility of formulating theory in the sense

of the first two cases, but also, due to the very lack of a unified object, tackling wider questions – indeed he called this third kind of theory “indispensable”. So, while a “student of analytic philosophy”, Kari the “student of architecture” was nevertheless intrigued by theory in the sense beyond that of scientific knowledge, that is, theory as something simultaneously analytical and speculative in working out what is involved in what we call, say, architecture. The critical viewpoint he liked to present was that of breaking free from what the Greeks called *ousia*, that is, nature, substance or the household, or residual domesticity. But not that there is any particular method or even object or such interrogation. As an approximate guide, he set out six maxims for the relevance of theory to practice:

i. To appreciate that everything one is working with is a contingent construction that could be made otherwise if need arises;

ii. Such constructions are usually neither radically subjective nor random, but more likely collective conceptualisations that pertain to particular interests and discourses;

iii. It is within these discursive contexts that we can understand the value experts and laymen attribute to designs;

iv. Different contexts produce different evaluations, and while, for instance, the design of public space is ultimately a matter of managing conflicts of interests, there may be conflicts that cannot be resolved;

v. The education of an architect or landscape architect involves not just the transmission of knowledge and skills but also the initiation of the student into a particular value system, which may even be necessarily opposed to that of large sectors of society;

vi. The disciplinary structures that determine what we understand as design and even a good design solution may need to be critically examined.

Kari felt that the unfettering of these “restrictive territories” would be the best service theory could provide for practice.

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Kari Jormakka’s career was marked by various periods of studying, researching and teaching architecture and theory in three distinct linguistic areas of the world – Finland, USA and Germany-Austria – a geography reflected heavily in his academic writings, but also in the locations of the authors in the present *Gedenkschrift*. The contributors are Kari’s former colleagues and students. As such they are for the most part writing on issues that he was deeply familiar with – and one could very easily imagine him critiquing each of the contributions. Indeed, each of the authors would undoubtedly have welcomed his response. The collection begins with a short text by Kari himself from 2005 outlining what he argued were both the limits and tasks of architectural theory, even as a programme of research for his own institute in Vienna, and one which seems as valid today as it was when

written. A long-standing debate between Kari and Kimmo Lapintie, his former colleague in Tampere, revolved around the question of intellectualism and the inherent political ideology of architecture versus a concern for architecture in respect to people's actual everyday lives and their experience of the built environment. We felt it befitting that the first essay in the *Gedenkschrift* should be that of Kimmo, Kari's friend and long-standing intellectual adversary.

It is also with great sadness that we note that two persons closely connected to Kari's career have also recently passed away: Jorma Mänty (1937-2018) was Kari's PhD supervisor and mentor in Tampere and founder of the Datutop series of publications on theory, and to which Kari continued to contribute after leaving Finland; Will Alsop (1947-2018), world-renowned British architect, had been Kari's colleague in Vienna. In an obituary for Kari published in the British publication *Architects' Journal*, Alsop said of Kari:

He was one of the good guys. He truly could not be pigeonholed. As an author, academic and thinker, he was always stimulating, but as a teacher he was supreme. He was much loved by students, in part because he would always be surprising in his responses and therefore inspiring.⁶⁷

The collection of articles is followed by interviews with two Austrian architecture firms, feld72 and DMAA, who both acknowledge the influence of Kari's teachings on their approach to architecture. The book ends with a list of all known published books and articles by Kari, including a couple published posthumously. And finally, as editors, we would like to express our deep gratitude to the Jormakka family in Lappeenranta, as well as the authors for both their contributions and patience. We would like to thank *Cloud-Cuckoo-Land* for permission to reproduce Kari's essay "A comment on architectural theory". Thanks also to Rudi Scheuven, dean of the Fakultät für Architektur und Raumplanung at Technische Universität Wien and also to many others in myriad significant ways for bringing about the *Gedenkschrift*. Kiitos paljon! Danke sehr! Thank you!

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Kari Jormakka was born on January 21, 1959, in Helsinki, the youngest of four children, but spent most of his childhood in Lappeenranta, in eastern Finland. He first studied philosophy at the University of Helsinki before transferring to the Department of Architecture at Helsinki University of Technology. After qualifying as an architect in 1985 he worked briefly in practice, but his ambition drew him to theory and research. He completed his PhD at the Department of Architecture at Tampere University of Technology in 1992, where he had also been a teaching assistant to Professor Jorma Mänty. In the years both before and immediately after completing his PhD, he also held various positions teaching the history and theory of architecture at

Ohio State University (1989-95) and University of Illinois at Chicago (1995-98) in the US, and Bauhaus-Universität Weimar (1993-97) in Germany, where he was Walter Gropius Professor of Architectural Theory and Design. In 1998 he was appointed full professor and head of the newly founded Institut für Architekturtheorie at the Technische Universität Wien. Later he also took up various visiting professorships, including at Harvard University (2006-07). Among his many other advisory positions, he was a prolific member of the Gestaltungsbeirat, the design advisory board in the city of Salzburg, Austria. In 2005 he (in an unusual joint application with the architect Farshid Moussavi) was shortlisted with two others to become the chair of the Architectural Association in London.⁶⁸ Kari died suddenly and unexpectedly of a heart attack at his home in Vienna on January 13, 2013, aged 53.

Notes

1. Walt Whitman, "Song of Myself", *Leaves of Grass and Selected Prose*. New York: Rinehart & Co, 1949, 76.
2. "In Zeiten wie diesen... / studiere die Baukunst nur, um zu lernen / wie man das Establishment stürzt / baue nichts / außer einer Barrikade." J.P. Takala, "Ajattele" [Think], *Arkkitehti*, 8/1968, 13. German translation by Kari Jormakka; English translation by G. Griffiths.
3. Aristotle, *Metaphysics*, 982b.
4. Kari Jormakka, *Heimlich Manœuvres: Ritual in Architecture*. Weimar: Verso, 1995, 144-149.
5. "What must have I done in [18]48, that one persecutes me forever? One single barricade did I construct – it bore up, because it was practical, and as it was practical it was beautiful." Gottfried Semper in a letter to Heinrich Hübsch, January 1852; cited in Peter Benz (ed), *Experience Design: Concepts and Case Studies*. London: Bloomsbury, 2015.
6. Ludwig Wittgenstein, *Culture and Value*. Chicago: University of Chicago Press, 1980, 23e.
7. Leila Haaparanta and Ilkka Niiniluoto (ed.), *Analytic Philosophy in Finland*. Amsterdam: Rodopi, 2003, 85.
8. Kari Jormakka, "Disguise, delimit: Notes towards the misosophy of architecture", *Wolkenkuckucksheim*, Vol. 13, No. 2, March 2009, 1-21. Kari refers more to Heidegger's use of etymology as a sort of epistemological tool in *Heimlich Manœuvres*, albeit drawing out seemingly bizarre consequences. For instance, Heidegger saw a link between the High German word for "building", *bauen*, and words associated with "Being", *ich bin*, *I am*, *bis*, and so on, concluding that "The way in which you are and I am... is dwelling", though also arguing that this true sense of the word recedes under the "habitual". Martin Heidegger, "Building Dwelling Thinking", in *Poetry, Language, Thought*. New York: Harper & Row, 1971, 146-148. Kari, in turn, in challenging Heidegger's reasoning, took the English word "dwelling" back to the Sanskrit word *dhwer*, meaning "deceive", "hide" and "mislead", facetiously suggesting that man's way of being in the world is also *deception*. Kari Jormakka, *Heimlich Manœuvres*, 147-148.
9. Kari Jormakka, "The dark side of architecture", in Konrad Buhagiar, Guillaume Dreyfuss & Jens Bruenslow (ed.), *The Founding Myths of Architecture*. London: Artifice Books on Architecture, forthcoming, 34-56.
10. Bob Dylan, "Don't Think Twice, It's All Right" (1963). Kari used the title of Dylan's song as the epigraph for his PhD thesis.
11. Kari Jormakka, *Constructing Architecture: Notes on Theory and Criticism in Architecture and the Arts*. Datutop 15, Tampere: Tampere University of Technology, 1991, 13.
12. Kari Jormakka, "An interview with Peter Eisenman", *Datutop* 14, Tampere: Tampere University of Technology, 1991. Kari Jormakka, "An interview with Arthur C. Danto", *Datutop* 18, Tampere: Tampere University of Technology, 1996.
13. Jormakka, *Constructing Architecture*, 47-51.
14. Leon Battista Alberti, *On the Art of Building: In Ten Books*. Cambridge, MA: MIT Press 1992, 156.
15. Kari expanded upon this in "How to read (Anything as) Art", *Nordisk Arkitektforskning*, 2/1994, 49-59.
16. The Finlandia Hall's Carrara marble tiles, which had become curved over time, were replaced in 1999, albeit with tiles 20% smaller than the original so as to minimize the possible repetition of the fault. By 2018 the tiles had already again become curved.
17. Jormakka, *Constructing Architecture*, 12-15.

18. Kari Jormakka, *Inadvertent Ontologies – Reading Architectural Theory*. Unpublished manuscript, Ohio State University, 1992, 8.
19. Geoffrey Scott, *The Architecture of Humanism: A Study in the History of Taste*. New York: Houghton Mifflin Company, 1914, 2. Kari discusses Scott in his unpublished manuscript *Architekturtheorie und Derleichen*, 2008, 9. A more extreme version arguing in favour of the primacy of “firmitas” can be found in Arthur Schopenhauer’s theory of architecture, according to which, “...properly speaking, the conflict between gravity and rigidity is the sole aesthetic material of architecture.” Arthur Schopenhauer, *The World as Will and Representation*, Two vols. Transl. E.F.J. Payne. New York: Dover, 1969, Vol 1. 214.
20. *Denkmalschutz* refers to the protection or ‘listing’ of buildings and historical monuments. Kari Jormakka, *Introduction to Architectural Theory*. Scriptum, 2. This anecdote was not included in the published version in German. Kari Jormakka, *Geschichte der Architekturtheorie*. Vienna: Edition Selene, 2003.
21. Jormakka, *Constructing Architecture*, 118-119.
22. Jormakka, *Introduction to Architectural Theory*. Scriptum, 43.
23. Hanno-Walter Kruft, *Geschichte der Architekturtheorie: Von der Antike bis zur Gegenwart*. Berlin: C.H. Beck, 1991. Indicative of the different approaches, Kari does not refer even once to Kruft in his own book.
24. Jormakka, *Geschichte der Architekturtheorie*, 168.
25. Paul Valéry, “Ex Nihilo”, in Paul Valéry, *Collected Works of Paul Valéry*, Volume 14: Analects. Transl. Stuart Gilbert. Princeton, NJ: Princeton University Press, 1970, 523.
26. See discussion in Héléne Frichot, “On the Death of Architectural Theory and Other Spectres”, *Design Principles and Practices: An International Journal*, Vol. 3, 2009, 113-122.
27. Among others: Kate Nesbitt (ed.), *Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory 1965-1995*. New York: Princeton Architectural Press, 1996; K. Michael Hays (ed.), *Architecture Theory Since 1968*. Cambridge MA: MIT Press 2000; Akos Moravansky, *Architekturtheorie im 20. Jahrhundert: Eine kritische Anthologie*. Wien: Springer Verlag, 2003; Liane Lefaivre and Alexander Tzonis, *The Emergence of Modern Architecture: A Documentary History From 1000 to 1800*. London: Routledge, 2004.
28. Kari Jormakka, “Paper, rock, scissors: Analog and digital pictures in architectural design”, in Jörg H. Gleiter, Norbert Korreck and Gerd Zimmermann (ed.), *De Realität des Imaginären. Architektur und das digitale Bild*. 10. Internationales Bauhaus-Kolloquium Weimar 2007. Weimar: Verlag der Bauhaus-Universität Weimar, 2007, 168.
29. See, for instance, Alex Williams and Nick Sirnicek, “#Accelerate Manifesto for an Accelerationist politics”, *Critical Legal Thinking*, May 14, 2013: <http://criticallegalthinking.com/2013/05/14/accelerate-manifesto-for-an-accelerationist-politics/> (accessed 10.5.2018).
30. Kari Jormakka, “The Empire and its Amazing Technicolor Dreamcoat”, in Kari Jormakka et al. (ed.), *Die Architektur der neuen Weltordnung / Architecture in the Age of Empire*. Weimar: Bauhaus Universität Weimar, 2011, 84.
31. Kari Jormakka, “Technologically enhanced body schema and spatiality: steps toward research on humanoid robots”, *HAUS*, May 17, 2011: h-a-u-s.org/index.php/2011/05/17 (accessed 1.11.2018). Kari Jormakka and Oliver Schürer, “The end of architecture as we know it”, *2nd International Conference on Intelligent Environments, Conference Proceedings, IE06*. Athens: National Technical University of Athens, 2006.
32. For instance, the symposium “Space Condition”, which accompanied the exhibition *Latent Utopias*, curated by Zaha Hadid and Patrik Schumacher, held in Graz, Austria, on 25.10.2002. Roger Riewe (ed.), *Space Condition*. Vienna: SpringerWienNewYork, 2002.
33. Manfredo Tafuri, *Theories and History of Architecture*. Transl. Giorgio Verrecchia. London: Granada, 1980, 141. See also Kari Jormakka, *Architekturtheorie und Derleichen*, 2.
34. Kari Jormakka, “Moving On”, in Kari Jormakka (ed.), *Absolute Motion*. Datutop 22, Tampere: Tampere University of Technology, 2002, 90-107.
35. Kari Jormakka, *Eyes That Do Not See: Perspectives on Functionalist Architectural Theory*. Weimar: Universität Weimar, 2011, 13. Kari Jormakka, *Design Methods*. Berlin: Birkhäuser, 2008, 8.
36. Jormakka, *Inadvertent Ontologies*, 3.
37. Jormakka, *Design Methods*, 81.
38. Kari Jormakka, *Genius Locomotionis*. Vienna: Edition Selene, 2005, 8-9, 191-192.
39. Kari Jormakka, *Flying Dutchmen: Motion in Architecture*. Basel: Birkhäuser, 2002.
40. Jormakka, *Geschichte der Architekturtheorie*, 10-12.
41. See, for instance, Jormakka, *Design Methods*, 71.
42. Maxine Sheets-Johnson, *The Roots of Power: Animate Form and Gendered Bodies*. Chicago, IL: Open Court, 1994, 68-72.
43. Jormakka, *Genius Locomotionis*, 157.
44. Andrea Wilson Nightingale, “On Wandering and Wondering: ‘Theōria’ in Greek Philosophy and Culture”, *Arion: A Journal of Humanities and the Classics*, Third Series, Vol. 9, No. 2, Fall, 2001, 24.

45. Review of Kari Jormakka, *Sydämellistä yhteiselämää: Espoon koulutaloja 1873-1990*. Espoo: Espoon kaupunki, 1991. Riitta Nikula, "Anarkisti koulussa", *Arkkitehti*, 4-5/1993, 80.
46. Jormakka, *Sydämellistä yhteiselämää*, 74.
47. Kari Jormakka, "Theory and design in the fourth machine age", in Lilli Hollein (ed.), *Urbanism – For Sale. Feld72: Osterreichischer Beitrag Zur 7. Internationalen Architekturbiennale Sao Paulo / Austrian Contribution to the 7th International Biennial for Architecture in Sao Paulo*. Wien: Verlag SpringerWienNewYork, 2007, 14-17.
48. J. L. Austin, *How to Do Things with Words*. Oxford: Clarendon Press, 1962. Jormakka, *Heimlich Manœuvres*, 19-22.
49. Jormakka, *Heimlich Manœuvres*, 3.
50. *Ibid.*, 2.
51. Jormakka, "Theory and design in the fourth machine age", 17.
52. Kari Jormakka, "Heterotopiary: The machine in the garden", *Techno-Fiction: 7. Internationales Bauhaus-Kolloquium Weimar*, Juni 1996. *Thesis*, Heft 1/2, 1997, 120-127.
53. Kari Jormakka, "The view from the tower", in Kari Jormakka (ed.), *The Art of the City – From Camillo Sitte to Today*. Datutop 27, Tampere: Tampere University of Technology, 2006, 122-141.
54. Pierre Bourdieu, *Distinction: A Social Critique of the Judgement of Taste*. Transl. Richard Nice. Cambridge, MA: Harvard University Press, 1984. Pierre Bourdieu, *The Rules of Art*. Transl. Susan Emanuel. Cambridge: Polity Press, 1996. See Kari's discussion of Bourdieu in *Constructing Architecture*, 150-156.
55. Here Kari is critiquing the theorising about "virtual architecture" proposed by John Rajchman and Brian Massumi: See Kari Jormakka, "Stop and go architecture".
56. "Moderne Architektur ist das aus der richtigen Erkenntnis einer fehlenden Notwendigkeit erschaffene Überflüssige." Karl Kraus, *Aphorismen und Gedichte, Ausgewählte Werke, Band 4*. Berlin: Verlag Volk & Welt, 1974. Cited in Jormakka, *Constructing Architecture*, 162.
57. Jormakka, *Eyes That Do Not See*, chapter 3, 131-176.
58. *Ibid.*, 14.
59. Jormakka, "The Empire and its Amazing Technicolor Dreamcoat", 74-75.
60. Kari Jormakka, "Torneista ei elämää eikä identiteettiä", *Etelä-Saimaa*, 15.12.2012, 12.
61. Albert E. Wood, "What, if anything, is a rabbit?", *Evolution*, Vol. 11, No. 4, Dec. 1957, 417-425.
62. We thank Antti Munnukka for providing us with the details from the Lappeenranta lecture "Mitä, jos jotain, on jänis?". "What, if anything, is a rabbit?" was the title of a lecture Kari gave in Munich in 2000, and also the secondary title for some of his courses in architecture theory in Vienna in and around 2007.
63. J.W. von Goethe, "Vorwort", *Farbenlehre*, in *Werke*. München: Hamburger Ausgabe, 1982, 1.4:5. Kari discusses this in *Architekturtheorie und Derleichen*, 2. Chapter 1 of the manuscript is titled "What, if Anything, is Architecture?".
64. Ludwig Wittgenstein, *Philosophical Investigations*. Oxford: Blackwell, 1963, I:5
65. Judith Butler [*Bodies That Matter: On the Discursive Limits of Sex*, 1993], cited in Jormakka, "Theory and design in the fourth machine age", 15.
66. Kari Jormakka, "Theoretical landscapes: On the interface between architectural theory and landscape architecture", in Simon Bell et al (ed.), *Exploring the Boundaries of Landscape Architecture*. London: Routledge, 2012.
67. Rakesh Ramchurn, "Kari Jormakka – Obituary", *Architects' Journal*, 29.1.2013.
67. The other shortlisted candidates were Jeremy Till and Brett Steele, the latter eventually being chosen. "AA names shortlist for chair", *Architects' Journal*, 25.4.2005.



Kari Jormakka playing the piano at the Aalto House, in Munkkiniemi, Helsinki, prior to *Building Designing Thinking*, the 3rd International Alvar Aalto Meeting on Modern Architecture, Jyväskylä, 2008.

A COMMENT ON ARCHITECTURAL THEORY

Kari Jormakka

Architectural theory cannot deliver the truth about architecture. Even in philosophy, the status of truth as the absolute value and goal of the investigation has been questioned since Nietzsche. Instead of a search for truth, philosophy was for him a practice of demystification, unmasking and genealogy, ultimately aiming at emancipation. And yet Heidegger insisted that Nietzsche never broke free from that which the Greek called *ousia* in its ordinary sense of “the household”, namely the circle of the stable *Bestand*.¹ Heidegger’s own work and that of Derrida, for example, attempt to free thought from this residual domesticity. This may be achieved through a critical close reading of traditional modes of thought, as in Derrida’s deconstruction, or perhaps through the active creation of new concepts, as Deleuze and Guattari promise – making Derrida grumble.²

To destabilize *ousia*, rather than settle the truth about architecture, appears to me to be the real task of architectural theory. Of course, the general term “architectural theory” has been used to refer to at least three radically different kinds of writing (and, occasionally, non-verbal projects and buildings). I would characterize these three as *design theory*, *criticism*, and *the philosophy of architecture*. Much of Le Corbusier’s literary output can be called *design theory*: he attempts to formulate new concepts in order to set rules and goals for design. Theory is used as *criticism* when we attempt to understand what Le Corbusier really has done by comparing his buildings with his writings, or the writings of other architects. Colin Rowe’s observations about the resemblance of Corbusian villas to Palladian ones would fall within this category. Finally, architectural theory as a metatheory or as the *philosophy and aesthetics of architecture* investigates the possibility of formulating design theories (the first kind of theory) as well as the relationship between a theory and a building or the intentions of the author and the work (the second type of theory) but there are many other questions as well.³ It is the third kind of theory that I see as indispensable.

As I see it, architectural theory in general does not have a method of its own any more than philosophy, for example, has one – even though, of course, particular theories can develop their own methodologies, such as for example Bill Hillier’s ways of mapping the “social logic of space” or Douglas Graf’s elaborate diagramming. Nor do I think that architectural theory has a unified object of study. It appears to me that there is no stable discipline of architecture, and any classification of (material or conceptual) objects as architecture should be contested. The lack

of method and object are in fact the greatest resources of architectural theory in its critical and emancipatory function, as they imply a lack of established *ousidic* structure. Architectural theory is not at home anywhere, not even in architecture.

Some issues

As a challenge to *ousia* within architecture, theory needs to expose the domestic biases in the conceptualization and representation of architecture from small scale structures to the city and beyond. Insofar as we are talking about high architecture or architecture as art, I would define a design for a building as *architecture* when it thematizes one or more of its aspects to the degree that it makes a contribution to an architectural discourse. In other contexts I have analyzed in some detail how architecture in this sense is constructed, interpreted and evaluated.⁴ On this basis, it is also possible to practice criticism as a form of theoretical investigation.⁵

However, if we do not wish to concentrate on high architecture alone, theory can also study what buildings (or the built environment as a whole) do to people as a tentative definition of architecture in the broader sense. In addition to being physical objects, buildings also organize human behavior, protect property, create privacy and publicity, constitute particular kinds of subjectivities, bring about social values and roles, and affect exclusions; they also communicate meanings and afford aesthetic experiences; and finally, they also have physiological effects, some of which are relevant to theory, rather than medicine. To understand how buildings manage to do such things – and many more – is a major challenge to theorists but it is a necessary step if we wish to change any of these mechanisms.

Much of what buildings actually do to people is not clearly recognized. I have attempted to articulate some principles of architectural performatives or rituals which need to remain unconscious or at least unquestioned in order to have any effect.⁶ The connection between action and its architectural envelope remains undertheorized, despite decades of environmental psychology. The more recent introduction of cultural and gender studies into architecture may provide some of the necessary tools to work out a theory between space, function, activity, and subject.⁷

Some of these results may necessitate a rethinking of how architecture is produced. To develop sharper ethical tools to tackle problems in architecture and urbanism is an urgent task.⁸ Our attempt is to combine the concept of freedom implicit in Foucault and Deleuze with the ethical theory of Mark Johnson in order to both analyze and go beyond the “projective practice” of Rem Koolhaas. Here, a number of economic issues also come to the fore, from branding to city marketing and tourism on the one hand and consulting on the other, as the values and the practices of the profession change.⁹

However, it is not just the problems that face every architect that need to be addressed: an equally important field of study is defined by the study of the design process, including the methods of representation. Both the traditional methods

and the possibilities offered by the new media contain various kinds of presuppositions and commitments that delimit the range of the possible results and push the design in some direction. It is the task of theory to bring the ontological commitments and other limitations of design and representational methods to the foreground in order to make rational decision-making possible. In particular, we have examined the quasi-algorithmic design methods of Peter Eisenman, Greg Lynn, MVRDV, and Marcos Novak.¹⁰ A special focus was placed on motion-based design techniques that in the 1990s sponsored a different kind of architecture and in general foregrounded the potential of motion as an architectural element.¹¹

The study of design processes and representational methods are elements in a theory of architectural practice that would also need a sociological dimension. In an earlier study, I have argued in a Bourdivin vein that design theories often function as responses to very concrete social pressures, albeit within the field of possibilities in the discourse. Other topics studied in our department of theory include the mechanisms of fame in the architecture world and in particular the logic of the architecture competition.

However, perhaps the most significant field of study at the moment involves the impact of new technologies. In the nineteenth century, architects engaged in theoretical debates (about styles etc.) with passion, but what seems to have been more important for the development of modern architecture were the changes in construction technology as well as the introduction of new materials. At present, we are witnessing the emergence of ubiquitous and pervasive computing in both domestic and work environments. There is no question that building automation is going to proceed, but the theory is generally speaking inadequate for architectural applications. Here, the input of architectural theorists is needed and welcomed by the engineers, in particular as regards such abstract issues as “In what sense could a building be said to possess consciousness?”, “Which conception of man is tacitly assumed in various existing computer models?” or “What is a function?”¹²

Notes

* First published in Wolkenkuckucksheim | Cloud-Cuckoo-Land | Vozdushnyi samok. International Journal of Architectural Theory, Volume 9, No. 2, March 2005. © Cloud-Cuckoo- Land. Reproduced with permission.

1. Martin Heidegger, “Über Nietzsches Wort: Gott ist tot”, *Holzwege*, Frankfurt: Klostermann, 221.
2. Gilles Deleuze and Félix Guattari, *What is Philosophy?* Tr. Hugh Tomlinson and Graham Burchell. New York: Columbia University Press, 1994; Jacques Derrida, “I’m Going to Have to Wander All Alone”, in Pascale-Anne Brault and Michael Naas (eds.), *The Work of Mourning*. Chicago: University of Chicago Press, 1993.
3. Kari Jormakka, *Architekturtheorie und dergleichen*. Wien: Edition Selene, forthcoming [editors’ note: the book remained incomplete at the time of his death]; Kari Jormakka, *Geschichte der Architekturtheorie*. Wien: Edition Selene. 2003; Dörte Kuhlmann, *Lebendige Architektur*. Weimar: Verso, 1999. Dörte Kuhlmann (ed.); *Ars Imitatur Naturam*. Thesis 18. Weimar: Bauhaus, 1997.
4. Kari Jormakka, *Constructing Architecture*. Datutop 15, Tampere: TTKK/Ars Magna, 1991. Kari Jormakka, Dörte Kuhlmann and Kristian Faschingeder, *Lost in Space*. Wien: Edition Selene, forthcoming [editors’ note: the book remained incomplete at the time of his death]
5. Kari Jormakka, Jacqueline Gargus and Douglas Graf, *The Use and Abuse of Paper: Essays on Alvar Aalto*. Datutop 20. Tampere: Tampere University of Technology, 1999; Kari Jormakka, *Form & Detail: Henry van de Velde Bauhaus in Weimar*. Weimar: Bauhaus-Universitätsverlag, 1998; Dörte Kuhlmann, *Mensch und Natur*. Weimar:

Bauhaus-Universitätsverlag, 1999.

6. Kari Jormakka, *Heimlich Manœuvres: Ritual in Architectural Form*. Weimar: Verso, 1995.

7. Dörte Kuhlmann, *Raum, Macht und Differenz*. Wien: Edition Selene, 2003; Dörte Kuhlmann, Sonja Hnilica & Kari Jormakka (ed), *Building Power: Architektur, Macht, Gender*. Wien: Edition Selene, 2003; Dörte Kuhlmann and Kari Jormakka (ed), *Building Gender. Architektur und Geschlecht*. Wien: Edition Selene, 2002.

8. Kari Jormakka, *The Practical Reason of Architecture*. Wien: Edition Selene, forthcoming [editors' note: the book remained incomplete at the time of his death]

9. Oliver Schürer and Gordana Brandner (ed), *Architecture: Consulting*. Basel: Birkhäuser, 2004.

10. Heimo Schimek and Dörte Kuhlmann, *Cybertecture*. Wien: Löcker, 2002; Kari Jormakka (ed.) *Absolute Motion*. Datutop 22. Tampere: Tampere University of Technology, 2002.

11. Kari Jormakka, *Genius locomotionis*. Wien: Edition Selene, 2005; Kari Jormakka, *Flying Dutchmen: Motion in Architecture*. Basel: Birkhäuser, 2002.

12. Oliver Schürer, *Beyond Machines: Emotions to Inhabit*. Basel: Birkhäuser, 2005.

THE (GOOD) INTENTIONS OF (ANTI-) INTENTIONALITY

Kimmo Lapintie

An interrupted debate

In the late 1980s, a group of young students and architects came together in Tampere University of Technology. We were all interested in theory, which was not so fashionable in the pragmatic atmosphere of the departments of architecture in Finland at the time. We gathered around Jorma Mänty, one of the few professors who supported theoretical reflection. We took turns as assistant lecturers and editors of the *Datutop* series published by the university for occasional papers and books on architecture theory. Although Mänty was professor of urban planning, our interests were not restricted to planning theory or urban studies, but also – or even predominantly – to more general problems of architecture. We wanted to know the essence of architecture, and how its different dimensions could come together in a holistic understanding of our field.

This is where I first met Kari Jormakka. Although three years younger, he was somewhat senior to me as an architect and scholar, having already graduated in 1985, after having also studied philosophy. My first degree had been in philosophy and it took me four more years to get my degree in architecture. As scholars we came closer: he received his PhD in 1992, and I followed him one year later. This also meant that he could already act as one of my examiners, together with Professor Timo Airaksinen representing philosophy. The public examination became a memorable event.

Although the public defence of doctoral dissertations in Finland usually takes two hours or so, mine involved as much as five hours of heated debate, with one interval. Besides this being some sort of a record, it was also to my knowledge the only case where the “custos” supervising the event had to interrupt the interrogation by one of the opponents, upon request by the other opponent. This persistent opponent was, of course, Kari Jormakka. Afterwards he complained that he was not allowed to make a “checkmate”. Well, we were so much younger then!

This was, in a way, the interrupted debate that I would like to return to in this paper – not in order to determine who was right, which would be grossly unfair since he is not around anymore. Instead, I want to respect his memory and contribution in the only way a colleague can: by carefully examining some of his arguments and taking them seriously as a challenge for my own thinking. The debate we had back then was indeed of such proportions that it has remained with

me for the rest of my academic career, although my later orientation has moved from theory of architecture more towards planning theory and urban studies. But as I will try to demonstrate, taking distance will not make it any easier: the philosophers in us will not rest until... yes, until what?

What is architecture?

What we did in fact was to approach architecture from two opposite directions, and we were bound to meet in the middle ground. Kari Jormakka started by analysing artworks, the paradigmatic ones such as paintings, novels or musical compositions, and approaching architecture (and even urban planning) as if they were borderline cases of artworks. In this reflection, he used a rare combination of learned discussion informed by traditional humanities, such as philosophy and theology, and a strict analytic argumentation with logical inference and counter-examples. This makes reading his texts so enjoyable but also difficult, since you can never be quite sure how serious he is in his eloquence.

The evident conclusion of this approach is that there comes the time to say that borders can no longer be stretched, and that we are entering other discourses, such as economics, technology, politics, or sociology. If architecture as the design of buildings is already a borderline case, even more so is urban design and planning, where the control over the final product is less direct. It is indeed true that urban design is seldom called the art of the city anymore, as Sitte would have it, and scholarly discussion on planning is concentrated more on strategies, participation, competitiveness, segregation, etc. than the artistic design of urban spaces. Multi- or interdisciplinarity is even taken for granted in the planning discourse.

Jormakka was not hesitant to reach this conclusion. His doctoral thesis *Constructing Architecture* ends with the following statement:

Whether or not aesthetic criticism is generally legitimate with regard to certain actions or objects, say buildings, is a question beyond aesthetics: if physiology, psychopathology, sociology, history, or anthropology can provide a more plausible explanation of the action or the object, an artistic interpretation is usually deemed superfluous.¹

Setting aside what “explanation” could mean in this context, what I found distasteful at the time was that this conclusion, as if by chance, came very close to the anti-theoretical and pragmatic view held by many practicing architects and teachers in the schools of architecture. Could he have succeeded in finding a theoretical support for this intuitive – and, in my opinion, often arrogant – conception of architecture?

But this emotional reaction was not the only reason why I found his conclusion problematic. My own starting point was somewhat different: I did not

start from paradigmatic artworks but architecture as a spatial practice, as an organization of human life. I would no longer use expressions like this, since in my present environment of urban planning even that assumes too much authority for the designers of the physical environment. I would rather speak of inputs to the urban system (of which architecture as well as people using it are a part). But the main concept in my thinking is still *life*, something that I found missing in the contemporary architectural discourse.

In 2008 Jormakka was invited to act as the chairman of the 3rd International Alvar Aalto Meeting on Modern Architecture, organised by the Alvar Aalto Academy in Jyväskylä, for which he created the title *Building Designing Thinking*. He invited me to participate in the event as one of the keynote speakers. There I had the opportunity to return to the old problem with my lecture titled “Space, Life and Architecture”, based on the observation that life was still not discussed in the established texts on architecture.²

The implications of my starting point were that in order to design and plan the built environment in a responsible way, the architect needs knowledge of human life and its various contextual features. These are not adopted by intuition but by education in the human disciplines – for example, the ones listed by Jormakka in his final statement. In addition to this, one would need sensitivity to the human experience and respect for it. Although architecture cannot be identified with the idiosyncrasies of individual experience, it certainly has impacts on them. Can they be deemed irrelevant, surpassed by the intentions of the architect?

This is how I expressed my frustration in front of the misanthropic – as it seemed to me – understanding of architecture:

Why is it so difficult to see this functional setting as a major inspiration in the art of architecture itself? Why is it that architects – even the modernists with the false label of ‘functionalism’ – wish to free themselves from the requirements of function, and see themselves as large-scale space-sculptors? Why is it that living in one’s house, working, forming communities etc. is considered so ‘dirty’ or so small that it is not the proper concern of the art of building? Isn’t the whole variety of life what art is all about?³

One can read from this quotation that I was – and partly remained – an outsider. Compare it to the statement by Peter Eisenman – clearly an insider – which was quoted by Jormakka:

Architecture must dislocate without destroying its own being... while a house today must still shelter, it does not need to symbolise or romanticise its sheltering function, to the contrary: such symbols are today meaningless and merely nostalgic.⁴

Eisenman does not, however, indicate what the house *should* then symbolize, or where it could find its inspiration. It seems that functionality is for him only a pretext for erecting the house, and aesthetics should be independent of the “earthly matters” of human needs and aspirations. Jormakka is partly following the same track, even to the effect that he sees non-functionality as a way to raise our ideas to a higher level:

A building can, and to be actually built usually must, be functional, but architectural works of art must not be functional in an unproblematic way. Objects of utility are often inconspicuous and transparent; perhaps a non-functional object or a feature of an object draws more attention to itself and requires a reason for existence, ultimately prompting metaphysical speculation.⁵

Now we seem to be entering the danger zone of both approaches. According to Jormakka, architecture has to present itself as something that forces us to see new things and rethink our “human predicament”, in the same way as good novels, paintings and films do. Thus he denounces everyday aesthetics where objects of utility remain transparent. This is not simply misanthropic aesthetics, but it does draw a demarcation line between “high” and “low” experiences and reflection. What it succeeds in doing is distinguishing architecture as art from “mere building” in the same sense than Pevsner did in his famous introduction to *An Outline of European Architecture*,⁶ which I discussed as the opening argument in my PhD thesis titled *The So-called Good Environment*.⁷

My own approach, on the other hand, in its attempt to “touch” human life and find inspiration from it, cannot by itself, as theory, avoid the populist and romantic features often met when popular needs are consciously addressed. Considering the ethical responsibility elementary in this view, how can it avoid conservatism, kitsch and non-creativity that are clearly not features of artworks, however we understand them?

But the quotation above also shows that Jormakka’s thinking is more complicated. Instead of simply considering the function (sheltering) to be something that is simply taken care of, he allows it to be *problematized*. But what does this mean? Problematizing is not the same thing as discarding or ignoring: you reflect on it, you raise the understanding of it to a higher level, you might – perhaps – even be inspired by it?

It is of course possible to problematize the concept of function itself. The apparent simplicity of functionalism – in the sense of form in design or planning following the functions of things and processes – is easily questioned. Is drinking the function of the glass? If so, why are water and wine glasses so different? Unlike the mug, both are used mainly for drinking cold drinks, so the stem and foot of the wine glass does not seem to have any function. Is it then unnecessary

ornamentation or formalism? And what about the famous Kartio glass by Kaj Franck, which has a very simple geometric form, compared to a simple 1€ glass from IKEA? Connoisseurs can tell the difference, and they are willing to pay ten times more for the original rather than one without the design brand. So form does not follow function, rather the opposite: design objects are used for “distinction” in Pierre Bourdieu’s sense,⁸ and different glasses are used for drinking water, red wine, white wine, sherry and cognac in formal dinners. These are cultural and social issues, not functions in the simple, straightforward sense. But this kind of reasoning would probably miss the point that Jormakka was trying to make:

Even the functionality of the International Style, which Eisenman attacks, is thematic and semantic in nature; as a comment on and criticism of degenerate historicism, it is a far cry from Loos’s unadulterated carpenter who builds a roof, just a roof, without knowing if it is beautiful or ugly or what kind of a roof it is.⁹

So it is intellectualism and historical reference he is after, not “blind” following of predetermined functions nor disregard of them. But this also means that functionality loses its supposed function of legitimation – or rather, a new defence is needed for the independence of aesthetic argumentation without legitimacy “from the outside”.

In this sense, architectural intellectualism is also different from the corresponding aesthetic argumentation in many other arts, which is often noticed by their representatives. If love, death, and social relations are the essential materials of novels, films, theatre pieces, and much of painting, one can compare this to the dictum by Hannes Meyer that Jormakka cites:

And the personality? The heart?? The soul?? We advocate pure distinction. These three will be deported to the reserves where they inherently belong: the love instinct, the enjoyment of nature, the social life.¹⁰

One could hardly hear such a statement from representatives of the “paradigmatic” arts, save the advocates for most abstract works. Does this mean that architecture is not only art but a very special form of art without any narrative contents but only distinction, perhaps more akin to music or abstract painting, which have indeed been mentioned as parallel to architecture?

Intentionalism revisited

The argument behind Jormakka’s intellectualism was based on his ontological reflections. After discussing the theological roots of aesthetic criticism and interpretation, he turned to analytic reasoning and concluded that, in addition to such

arts as music or literature that clearly have no singular material embodiments, even autographic arts like painting need to be discussed by concentrating only on their artistic qualities (e.g. the composition of the colours), not all of their material or institutional properties (such as weight or ownership). But if artworks are not material things, what are they?

Jormakka's rather daring conclusion is that they are ideal entities constructed by criticism. But not any kind of criticism but one that is "successful... just like one sometimes gets a 'strike' in bowling or makes a 'world record' in javelin when certain conditions are met."¹¹ This ontology is no longer akin to the intuitive approach, according to which architects and constructors and not critics make artworks come into existence. His use of metaphors from sports is also surprising; they are usually considered simple in their rules of success, but also in their more tolerant interpretation of the activities: failing to get a strike in bowling is still bowling, and throwing the javelin without success is still participating in that sport.

The rules of successful criticism are, according to Jormakka, artefactuality, unity, meaning, autonomy, and uniqueness.¹² The covering principle behind all these is intentionalism. Artefactuality means, for him, that all aspects of the work can be attributed to the direct intentional causation of a human author. Unity means that all aspects can be explained from one principle which the author can have intended. Also the correct meaning of the artefact is derived from intention: "Only when something is taken to have been intentionally presented as a meaningful sign or gesture, can it be read as meaningful."¹³

With this view Jormakka went against much of contemporary literature, where primacy of the text or multiple readings had been much discussed. He discussed at length the different arguments for anti-intentionalism and found them unconvincing. Interesting but also problematic in this discussion was, however, that he seemed to start from his intentionalist doctrine, arguing that none of the counter-arguments against it convinced him to give it up. Actually the five criteria of successful criticism were themselves not derived from a lengthy discussion but were introduced already on page 14 of his thesis-book, as if they would somehow follow from the discussion on the religious tradition behind criticism. So it seems that intentionalism was, for him, a natural starting point.

For me, in contrast, anti-intentionalism was an equally natural starting point, although I never felt the need to call it so. It seemed to me evident that artists as well as other people were constantly sending messages, only some of which are intentional. A mediocre actress (who does not "strike" in Jormakka's sense) reveals her low self-esteem through her body-language, even if the role would require self-confidence. A novelist is trying to create interesting and deep characters, but some of them remain stereotypes. And an architect is trying to create a daring contrast in the cityscape but, at the same time, is destroying the existing harmony of the urban fabric (not necessarily intentionally). Still, I would call all these artists and their works artworks – although not necessarily the most successful ones. I have

never thought of artists as god-like creatures but very human, who often fail in their efforts, without doing it intentionally. It is also possible, although more rare, to get a hit as if by chance, or at least unconsciously. I also find it natural that there are multiple relevant meanings, without having to conclude that everything can mean anything.

Now it would be possible for me to travel with Jormakka to see if, in my turn, I would be forced to give up my intuitive home-base and adopt intentionalism instead. This is what I did in my critique of Jormakka back in 1993, being as eager as he was to win the battle.¹⁴ However, readdressing this debate would be pointless for the purposes of this paper. The Habermasian idea of ideal speech or the strength of a better argument may indeed be an illusion.

What I am going to do, instead, is to pick up one detail from Jormakka's argument and see how it could be used to illustrate the two opposing points of departure discussed above. This is how he argues for intentionalism:

It is the convention of architectural criticism, as well [compared to Oldenburg's failed attempt to name all things red in his exhibition titled *My work: Things Coloured Red*], to limit the analysis to those features of the building and its environment which the author can be understood to have intended. For example, one is not expected to study where the electric wires go from the building, consider all those buildings in a city as parts of one unity where a certain kind of wall paint has been used, or muse extensively on a car which happens to be parked in front of the entrance (unless, of course, if one is studying Le Corbusier's own, highly composed, photographs of his buildings with his car often prominently displayed).¹⁵

This argument seems rather forceful on the face of it: discussing all the buildings coloured red, like Oldenburg, or the wires or the parked car in front of the entrance could hardly make sense. The interesting thing is, however, that he bases his theory on the conventions of architectural criticism, which means that it is essentially conventionalist. Part of the self-evidence of the arguments obviously comes from our acquaintance with this convention. Would this theory, then, allow any critique of convention?

In my address at the *Building Designing Thinking* conference I also started from the conventions of architectural criticism by analysing an established text published in the *Finnish Architectural Review* on a building that I happened to live in at the time. What was interesting was that the text mentioned the wall-like form and façades of the building, its colouring and its relationship to the styles and colours of the immediate surroundings. On the other hand, it did not even mention that the building was a residential building, nor did it address any other functional features. The work was, thus, constituted exactly as a piece of

large-scale sculpture. The text was written by the designer himself, thus revealing the *intentions* that he wanted to mediate to his readers (mostly fellow architects).

My point in the analysis was very close to my earlier intuitions (I haven't travelled far): that a "touch" with the functions and success of the input to human life should find its way into architectural criticism. Thus it was a *critique of criticism*. But is it then *social* criticism, instead of the "pure distinction" advocated by Meyer? Maybe it is indeed necessary to focus our attention on certain limited features in order to produce *aesthetic* criticism of architecture. It would, for instance, be difficult to analyse the particular composition of the facades by referring to the residential functions. But then again, these functions might be relevant to the "human predicament", if they are seriously problematized, as Jormakka suggested.

But we may also find another interesting reading of the quotation. There are indeed villages and towns where almost all of the buildings are made of the same material and have the same colour. In such a context a building with a very different material and colour is a different gesture than it would be in another context, independently of the intention (or negligence) of the architect. Similarly, an individual car parked in front of a house cannot as such be designed by the architect, but cars can usually only drive and park at places which are dedicated to them. For urban planners and designers, roads and parking places are an essential part of their job – and one of the most difficult tasks for architecture students. The difference here seems to be in the level of abstraction: in the same sense as urban designers cannot be held responsible for every single building designed by another architect, they are responsible for the general features of the plan, including the places where cars are allowed to park – and, unfortunately, also the accidents that result from their unintentional negligence.

Notes

1. Kari Jormakka, *Constructing Architecture – Notes on Theory and Criticism in Architecture and the Arts*, Datutop 15. Tampere: Tampere University of Technology, 1991, 184.
2. Kimmo Lapintie, "Space, Life and Architecture", in Kari Jormakka and Esa Laaksonen (eds.), *Building Designing Thinking – 3rd International Alvar Aalto Meeting on Modern Architecture*, Ptah .08. Helsinki: Alvar Aalto Academy, 2008.
3. Kimmo Lapintie, *The So-Called Good Environment – Morality and Criticism in Architecture*, Datutop 17. Tampere: Tampere University of Technology, 1993, 56.
4. Jormakka, *Constructing Architecture*, 28.
5. Ibid.
6. Nicholas Pevsner, *An Outline of European Architecture*. London: Pelican Books, 1975, 15.
7. Lapintie, *The So-Called Good Environment*, 3-8.
8. Pierre Bourdieu, *Distinction: A Social Critique of the Judgement of Taste*. Transl. Richard Nice. Cambridge: Harvard University Press, 1984.
9. Jormakka, *Constructing Architecture*, 28.
10. Meyer cited in Jormakka, *ibid.*, 92.
11. Ibid., 13.
12. Ibid., 14.
13. Ibid., 43.
14. Lapintie, *The So-Called Good Environment*, 60-69.
15. Jormakka, *Constructing Architecture*, 16-17.

THE ARCHITECT AS EDUCATOR

Ákos Moravánszky

The figure(s) of the educator

Could Vitruvius have had any inkling of what kinds of tasks he would be burdening future educators with by enumerating the vast knowledge required of an architect – ranging from fluency in written expression to knowledge of astrology? Over the centuries, in which the individual areas of science have become increasingly distinct disciplines, the complex but integral identity of the ideal architect has been divided into individual partial identities – or at least in the understanding of diagnosticians of the time. Especially during the 20th century, there was a growing number of voices lamenting the loss of the former unity within the architectural profession.

The German art critic Karl Scheffler published in 1907 a thin volume titled *Der Architekt* [The Architect], part of the book series edited by Martin Buber titled *Die Gesellschaft. Sammlung sozialpsychologischer Monographien* [Society. A Collection of Social-Psychological Monographs]. “Where there used to be only master builders, journeymen and apprentices, [...] today there are careers”, complained Scheffler, and presented five identities of the architect as predominantly manifested in the professional world: the entrepreneur, the scholar, the civil servant, the craftsman and the artist.¹ More than eighty years later, the English architectural historian Andrew Saint, in his book *The Image of the Architect* also described five characteristic role models of the architect: “hero and genius”, “professional”, “businessman” and “entrepreneur”.²

The consequences of the fragmentation of the vocational training were debated in August 1947 at a conference hosted by Ernst Neufert in Darmstadt under the title “Der Architekt im Zerreisppunkt” [The architect at breaking point]. Organized by the Sektion Architektur, Internationaler Kongreß für Ingenieurausbildung IKIA [Architecture Section of the International Congress of Engineering Education], the participants sought an answer to the question of whether the ideal education of the architect was best ensured at an art academy or at a polytechnic. The “fragmentation” of the profession posed a threat to the social prestige of architecture as an academic discipline in the struggle for recognition of its specific expertise. It is therefore strange that the architect as an educator does not appear as a separate figure in any of the two above-mentioned typologies, although the multiple personality of modern architects presented the teacher of architecture with a virtually irresolvable problem: for which job profile should the school of

architecture have to prepare future architects? Which is their “true” identity?

Architects are exposed to all those forces who want to destroy their professional identity, and also their integrity. Most of the participants in the Darmstadt conference seemed to agree that the historical genesis of the architectural profession and the particular ability of architects to participate as “conductors” in the foundation of different expertise and knowledge, and to bring together others in joint creations, predestine them to intervene in society in a creative way.

The great synthesis of science and art, which was even more eagerly awaited after the Second World War, is today once again tied to the concept of the *Baumeister* [master builder] – and his or her intelligence is expected to have a therapeutic effect. While the teachers of engineering or science pass on their expertise to the expectant professional colleagues, the ambitions of the teachers of architecture go far beyond the actual boundaries of the discipline. The architect as an educator may prove lacking in the portrayals laid out by Scheffler or Saint because he or she possesses no clear outlines and characteristics. This type of educator in turn incorporates a number of identities that can only be understood with the help of an appropriate typology.

The typology of the architect as an educator as outlined below includes five types, as was the case with Scheffler and Saint: the master, the scholar, the design professor, the folk educator and the explorer. The boundaries between these categories are permeable; a design professor could equally be a scholar or a master, or even simultaneously all three. At the same time, the relationship between these figures is accompanied by continuous tensions. They are linked by different forms of professional and social expertise, but also by differing views on how to present the field of architecture, which are indeed their central themes, as well as their connections to other areas of knowledge. Each of these figures has their own ideas about the role of their own talent, their preferred mode of argumentation, their typical habitat and space: i.e. the workshop, the lecture hall, the design studio, the public space or the seminar room. Moreover, these types of educators are connected to their own time, the epoch in which they are located historically, even if they are by no means located only in that particular period. Each of these types also has its ideal counterpart, that is, that type of student that most closely matches the educator’s specific skills and teaching methodology.

The master

The influence that Leon Battista Alberti, Frank Lloyd Wright or Adolf Loos exerted on the architecture of their own time and beyond cannot be explained by the fertile intellectual climate of respectively the Italian Renaissance, the industrial boom in Chicago or the role of Vienna as a place of enormous creativity. Above all, the master is a “personality”, that is, one who is idolized within the circle of his students and with his own corresponding personality cult.

The Indian architect Charles Correa recalls in an essay on architectural educa-

tion a parable from the Indian epos *Mahabharata* about Prince Arjun, a student of the great Brahmin sage Dhrona, who was supposedly the finest archer in the land. One day, when he and his brother were playing in the forest, they heard a dog barking nearby. Just as they finally found the annoying animal, an arrow shot out of the bushes and passed through the dog's teeth, miraculously clamping the dog's mouth shut without hurting it. The archer, who was even more skilled than the prince, was a dark-skinned boy by the name of Ekalavya and clearly belonging to the caste of the Untouchables.

Who has taught you such mastery? They ask in wonder. My teacher is the great Dhrona, the boy replies. But you are an Untouchable! cries Arjun, how could a Brahmin ever accept such a student? Of course I would not dare to try and approach so exalted a guru, says the boy, but I have made a small statue of him, and when I go to the forest each day, I place this image against a nearby tree - and when I practice my archery, I tell myself that the great Dhrona is watching me.³

We can recognize in Dhrona the forefather of our master figure, whose inspiration requires imagining his presence and, above all, the aspiration of the student as his educational activity. Could Correa have been thinking about the hype surrounding star architects, who also often only operate as names on the faculty list in many schools of architecture? The Zen Master, with his cryptic statements and, if necessary, the strokes of his cane, is an archetypal representative of this species. He lives in the community with his apprentices, who appreciate his devotion and call themselves proudly students of Wright or Bonatz, even if they are already masters themselves.

The *topos* of the master builder goes back to the medieval system of the *Bauhütte* that was developed to manage the construction of the great cathedrals. To this day, the system of the *Bauhütte* is the embodiment of a creative space, where experiment, discussion and craftsmanship are part of a holistic life experience. It was often revived in times when people were searching for new ideas. The comprehensive maxim of restoration during the 19th century brought about the renewal of the tradition of the *Bauhütte* as a place for the dissemination of knowledge about national architecture. Antoni Gaudí's workshop at the Cathedral of La Sagrada Familia in Barcelona, where Walter Gropius visited him in 1908, was not a school of architecture but a kind of cabinet of curiosities for experimentation, an alchemistic laboratory where the architect worked with plants, crystals, skeletons and copied the forms with plaster models. (Fig. 1)

Taliesin, the school of architecture of Frank Lloyd Wright, is one of the most famous examples of how the idealized concept of the *Bauhütte* as an extended family becomes a projection of the wishes of teachers and students which cannot be fulfilled by academic teaching. Wright started building Taliesin in Spring Green,



Fig. 1: Antoni Gaudí's workshop in Barcelona.



Fig. 2: Frank Lloyd Wright with his students in Taliesin in 1937.

Wisconsin, in 1911. Taliesin, a place of both tragic events and early success in Wright's life, soon became an important centre for modern architecture. Many young architects from the US, Europe and Japan went there as apprentices. They had to integrate into the at first patriarchal and later – with the arrival in 1925 of Wright's third wife Olgivanna – somewhat matriarchal order, work in the kitchen and garden, and play music and dance if the master demanded it. Olgivanna even tried to control and direct the private contacts of the Taliesin community. (Fig. 2)

The initial search for a synthesis of various productive arts, such as crafts, the visual and applied arts, as well as experimentation, was carried out by the founders of the Bauhaus school in Weimar with a zeal that can only be triggered by utopian thinking. They were concerned with the education of a new type of designer, whose profile was imagined differently by the various Bauhaus masters. Likewise, there were contradictory opinions about the Bauhaus master, especially in the beginning. Johannes Itten, who was hired at the Bauhaus as the *Formmeister* [“master of form”], meaning not a craftsman but the artistic leader of several workshops, was a follower of the esoteric cult Mazdaznan founded by Otoman Zar-Adusht Ha'nish (born Otto Hanisch) and demanded of his students in Weimar that they follow strict cleansing rituals and breathing exercises. As opposed to Itten, Gropius called for an education that focused on the most rational methods of production, rather than the creative artistic individual.⁴ This discussion, which picked up the debate on typification of the Deutscher Werkbund (1914), was continued by other Bauhaus masters. Even the masters' specific dress – the monk's cowl of Johannes Itten, Wassily Kandinsky's elegant dark suit and bow tie, Hannes Meyer's pullover with zipper – clearly expressed the differences.

The obsession with work and the tenacity of the master does not obscure his vanity and temperament. Friedrich Achleitner told about the role of the *verquerten Meisters* [wrong-headed masters] in Viennese architecture, a model that has been continuously reproduced since the time of Otto Wagner:

Since then, the master is haggard, grumpy, self-opinionated and deaf. Beyond reproach, he chastises relentlessly the failures and omissions of society. And they cooperate; what they withhold from the living master they grant him profusely and generously when he dies.⁵

The story told by Charles Correa about Ekalavya has a sobering conclusion: Prinz Arjun accompanies the young archer to meet the great Guru Dhrona, who with his sense for *Realpolitik* immediately recognizes the threat when an untouchable is a better shooter than the son of the king. Correa's account of the story continues with Dhrona telling Ekalavya:

'You say you are my pupil; will you then give me a *gurudakshina*?' (i.e. the present offered by the student in gratitude to his teacher)? The boy nods happily.

‘Then,’ says Dhrona, ‘give me the thumb on your right hand.’ Without the slightest hesitation, Ekalavya pulls out a knife, chops off his thumb and hands it over to Dhrona. He will never ever be able to use his bow and arrow again.⁶

The scholar

“Signum scientis est posse docere”, wrote Thomas Aquinas, that is, “the ability to teach is a sign of knowledge.” In other words, he who knows order himself can demonstrate it to others. Who else but the *Baumeister* [master builder], who works on the basis of comprehensible rules, embodies this kind of knowledge of order? Of course, he does not have to explain to his craftsmen these rules, only his students. This requires a higher degree of self-reflection than the shared work at the *Bauhütte*, and is probably connected to the relatively high autonomy of architecture as intellectual merit. During the 13th century, at the time of Thomas Aquinas, many scholars discovered in the master builder the unification of many forms of creativity and intellectual activity. The place of the master, between his study and the construction site, was extremely important for scholastic thought and – if we are to believe Erwin Panofsky – even more important than for the architecture.⁷ Vision, visualization, and argumentation belonged to the “projective” practice of the master builder; practical experience alone was not enough. For this reason, during the Renaissance the discursive knowledge of the architect as a scholar was highly appreciated.

Even though architectural studies were institutionalized and under state control in Germany, in Britain and the United States it remained for a long time within the control of the private realm. Even royal institutions such as the Royal Academy of Arts were led by its members and not by professors or public servants. Since the 19th century an *apprenticeship* in an architects’ office paved the way for an architectural career. The dark side of the *pupilage* system was described by Charles Dickens in his novel *The Life and Adventures of Martin Chuzzlewit* (1843/44): Mr. Pecksniff, less interested in the architecture of his pupils than in collecting their tuition fees, takes in young men from wealthy families as apprentices in his office, and who live in his house during their studies. (Fig. 3)

Besides the few professionally educated architects – such as John Soane (1753–1837), who learned from books and attended evening lectures at the Royal Academy of Arts (founded 1768) on the recommendation of George Dance, one of its founding members, to whom Soane was initially apprenticed – the American and British architecture profession was dominated by gentlemen architects, mostly wealthy amateurs such as Lord Burlington (architect of the Palladian-style Chiswick House) or Thomas Jefferson. Soane, who was successful in first ousting and then succeeding Dance at the Royal Academy of Arts, also took on students in his own office who learned the various practices, for which they had to pay him. But he took his job as an educator seriously and distanced himself from the type



Fig. 3: The architect Mr. Pecksniff with his family and his assistant Tom Pinch. Illustration by Phiz to Charles Dickens' novel *Martin Chuzzlewhit*, 1844.



Fig. 4: John Soane's house at 13 Lincoln Inn's Fields, London, 1808-1812.

of architect-entrepreneur represented by those such as John Nash.

The house in Lincoln's Inn Fields in London that Soane bought in 1792 and expanded in 1813 still today shows the ambition of the professor of the Royal Academy to train and inspire "amateurs and students in painting, architecture and sculpture".⁸ He regarded the Academy's collection of artefacts as insufficient and the collectibles in his house were meant to fill the gap. It was not just an academic collection but also a setting where he presented himself as a scholar. The guided tours in his house replaced the Grand Tour for those students who could not afford the trip to Italy.⁹ (Fig. 4)

The necessity of putting the education of architects on a systematic foundation led during the 19th century to the founding of important building schools (*Bauschulen*) in Central Europe. Already by the end of 18th century, the education of architects and engineers had been institutionalized by the state. These institutions offered construction and technical education, whereas the artistic education was limited to the art academies. In around 1870 the newly founded polytechnical schools in Aachen, Berlin, Dresden, Darmstadt, Karlsruhe, Munich, Stuttgart, Vienna and Zürich managed to separate the education of architects and engineers and agreed with the other schools on a curriculum. These technical colleges had to establish themselves as an alternative to the French model of the *École polytechnique* in Paris, which trained military engineers, and to the academies with an artistic orientation.

The “German” and the “French” methods of technical and academic education remained as two parallel systems, despite some attempts to unite them. Karl Friedrich Schinkel, the architect of the *Bauakademie* in Berlin, spent a long time writing a guide book to architectural education, particularly on the drawings, but the illustrations and text fragments were not fully published until 1979. He was never able to carry out his pedagogical intention to analyse the forms of classical architecture from the point of view of construction techniques, that is, to use the theory of tectonics as an instrument to distinguish between what he regarded as correct and incorrect forms.¹⁰

As opposed to the pedagogical systems of Schinkel or Leo von Klenze, the architectural education devised by Gottfried Semper was dominated already early on by the precise demands of academic education. Ordered by the minister, Semper made several proposals in 1834 to reorganize the *Bauschule der Akademie der bildenden Künste* [School of Architecture of the Academy of Fine Arts] in Dresden, including limiting the number of students only to those “who show talent”, who share work in order “to encourage competition among the students”, and numerous practical directions.¹¹ As opposed to earlier educational systems. Semper’s stance was not fixed on monuments but comparative studies of buildings of different epochs and different historical styles. In the “Prolegomena” of his main work *Der Stil in den technischen und tektonischen Künsten, oder Praktische Aesthetik*, Semper made a detailed proposal that was motivated by his experiences at the *Eidgenössisches Polytechnikum* (nowadays ETH) in Zürich.

A consequence of the social activity of a professor as a civil servant was their presence in public. In the case of Semper, this role was linked to a new claim for scholarship, which led to an explosion in theoretical writings and a growing audience. The evaluation of the latest artefacts in art and technology and of pieces of ethnological research led to a new scholarly reflective practice and a new kind of intellectual career. Semper was one of those politically motivated professors who connected their theoretical and creative work with their public activities. Despite being a professor at the *Dresdner Akademie*, a member of the “academic department” of a militia (*Bürgerwehr*) and even a member of a sniper company (*Scharfschützenkompanie*), during the uprising in Dresden in 1848-49, he took the side of the revolutionaries. Consequently, he led the construction of a barricade, which was supposed to withstand the charge of the united Saxonian and Prussian troops. After the suppression of the uprising, Semper was a wanted man and thus he had to flee from Germany. He was not the only civil servant to back the opposition, although in the 19th century there were relatively few architects among the professors who were politically engaged in provincial or national parliaments.

The teaching practice of Aldo Rossi at ETH Zürich in 1972–1974 shows some similarities with Semper’s “new beginning” in Switzerland after his exile in Britain. The Italian architect and professor at the *Politecnico* in Milan did not build any barricades, yet in 1971 he participated along with other professors at the architecture faculty in the student revolt and was consequently suspended.

When he received the invitation for a visiting professorship at the ETH, he had to confirm that while in this position at the architecture faculty he would not participate in any political activity.¹²

Ever since the Marxist or Marxist-inspired critique of the welfare state escalated, culminating in June 1968 in the Zurich “Globuskrawall”, the ETH found itself in an experimental phase. A specifically arranged commission attempted to implement basic pedagogical and higher-education policy reforms. Hiring an Italian communist as a visiting professor had to be considered a risky move – but it turned out to be the correct decision.¹³ It was a reaction to the politicization of part of the student body and at the same time to the obvious growing discomfort in the architecture faculty in terms of conveying the content and values of the program. It was above all thanks to Rossi’s “guest performance” that architecture history was no longer regarded as a lesson relevant only to the humanistic education of the architect but less so to architectural design. This development would be inconceivable without the increasingly critical position taken against Modernism and the popularity of Postmodern theories about architecture as language, semiotics, information aesthetics and so on.

The fact that design during this period of “the presence of the past” was understood to be much more than a discussion of historical fragments was due to Rossi as a scholar, who possessed a deep understanding of history, and not one just limited to images. Since then, in many design studios at the ETH a reflective relation to architectural history is seen as an important requisite for any successful design solution.

The design professor

The state academies of the 17th century were founded in order to teach architecture theory, to carry out research of materials and to educate future architects. One of the objectives of the academic education for this profession was to combine the “artistic” design practice with “entrepreneurial” office practice. In 1671 the *Académie royale d’Architecture* was founded by Jean-Baptiste Colbert, a minister under Ludwig XIV, as an “artistic” alternative to the *École des ponts et chaussées*, which trained military engineers. Moreover, it arranged architectural competitions and awarded prizes – the Prix de Rome being the most significant one.

In 1803 the Académie royale d’Architecture became part of the newly founded *École royale et spéciale des Beaux-Arts*, which together with four other academies belonged to the Institut de France. In 1819 the *Section d’architecture* was separated from the classes of painters and sculptors. The school moved into the buildings of the confiscated Couvent des Petits-Augustins, which housed an impressive collection of artworks and architectural artefacts from churches which the archaeologist Alexandre Lenoire had saved from destruction. The institution, renamed *École des Beaux-Arts* in 1863, housed the studios of patrons, that is, established architects. Regularly organized competitions (*concours*) became the model for other European

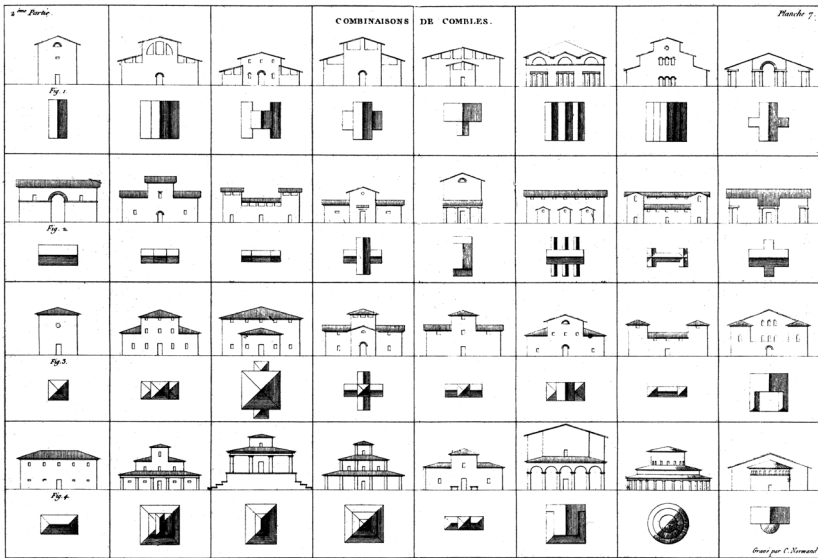


Fig. 5: "Combinaison de combles." Plate from the *Précis des leçons d'architecture* by J.N.L. Durand, 1819.

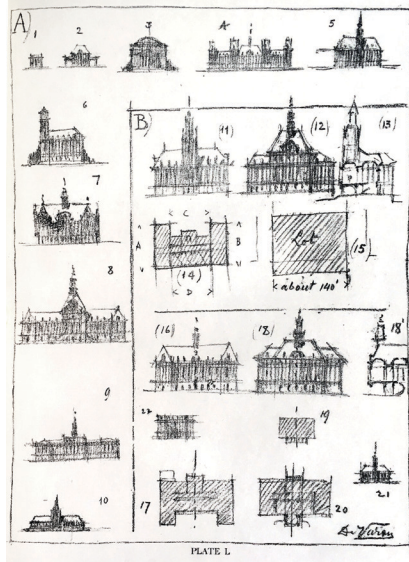


Fig. 6: Looking for a "parti" (scheme). Plate from David Varon, *Indication in Architectural Design*, 1916.

and American schools of architecture.

The young French government found the military orientation of the *École des ponts et chaussées* unsuitable for solving all the new civil tasks, and hence in 1794 the *École centrale des travaux publics* was opened, but which soon changed its name to *École polytechnique*. It was here in the early 19th century that Jean-Nicolas-Louis Durand developed a simple design method: he spoke of the “*mécanisme de la composition*”,¹⁴ whereby standardized architectural elements could be used in a strict order to realize either parts or the complete building. Since the profession was almost incapable of coping with the enormous number of new commissions, such as stock markets, market halls or town halls, Durand’s method proved very efficient. He avoided the carefully designed compositional vocabulary of his school to underline the systematic character of his teachings. (Fig. 5)

The design professor is the kind of architect whose work is most closely associated with a characteristic method of architectural design, namely composition. The discourse of composition had first been developed in the system of the *École des Beaux-Arts*.¹⁵ In order for a student to move up from the second to the first class, it was necessary for him to achieve enough credit points from competitions and awards. Most important was the first sketch (*esquisse*), which had to be completed in a nine to twelve-hour-long exam (*en loge*) without pattern books or consultations. Despite – or perhaps particularly because – composition was a highly formalized and regulated system, the *esquisse* was supposed to include intuition as part of the form-finding process. It was regarded as the result of an inspired moment, in which training and talent lead to the embryonic *parti* for a successful project. (Fig. 6)

A revision of the composition teachings of the *École des Beaux-Arts*, which took into account new findings from perceptual psychology, can be seen in the American discourse on composition that was fuelled by the necessity to construct buildings of hitherto unimaginable dimensions. The system of the *École des Beaux-Arts* proved to be reformable, as is shown in the architecture of Louis Kahn and other architects who were educated in the academic tradition. The extensive exhibition *The Architecture of the Ecole des Beaux-Arts*, curated by Arthur Drexler in 1975 at the Museum of Modern Art in New York, provided the occasion to discuss the positive and negative lessons of an institution that had ended with the student revolts in 1968.¹⁶ (Fig. 7)

The public educator

In 1911 the influential patron of the arts and architecture Karl Ernst Osthaus commissioned the artist Jan Thorn Prikkers (1868-1932) to produce the stained-glass work *The architect as educator for trade and industry* to be placed in the train station of Hagen, then a rapidly developing German industrial town. The architect is positioned in the center of the composition holding a book and a compass, and on either side of him are figures representing different professions

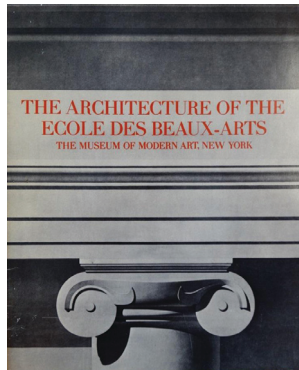


Fig. 7: The cover of the exhibition catalogue *The Architecture of the Ecole des Beaux-Arts*, The Museum of Modern Art, New York, 1977.



Fig. 8: Stained glass window "The architect as educator for trade and industry" by Jan Thorn Prikker in the hall of the Hagen railway station, 1911.



Fig. 9: Paolo Soleri's town Arcosanti in Arizona in 1990.

and generations. (Fig. 8)

The public educator feels at home in a different social realm than the university professor with his cultural prestige and considerable institutional resources. A new awareness of the social impact of architecture was promoted after 1900 by large social movements, such as the rise of social democracy in Germany or the Russian revolution.

Those architects who felt close to the reform movement, such as Theodor Fischer, Peter Behrens or Fritz Schumacher, shared their belief in educational responsibility, and their work ran parallel to the ambitions of Karl Ernst Osthaus or Alfred Lichtwark and the art education movement. The quality of building, like craftsmanship and industrial production, was measured by pedagogical standards. It followed the assumption that the environment has a great educational impact on people.

The appearance of architects in the features section of daily newspapers became increasingly important with mass distribution. It is hard to imagine Adolf Loos' career as an architect without the critical debates in the popular media. His "Wohnungswanderungen", that is, guided tours through apartments designed by him, as well as his private "building school" (*Bauschule*), served the purpose of establishing his leading role in the formation of modern taste, "for the introduction of western culture into Austria", as proclaimed by the subtitle of the journal he founded in 1903, *Das Andere* [*The Other*].

In the United States, where the social reform program of modern architecture (*das Neue Bauen*) was abandoned in favour of the modern aesthetics of the International Style, this dimension was – with a few exceptions – missing. One such exception was the curriculum at the school of architecture at the University of California in Berkeley developed by the dean of the school William Wurster and his wife Catherine Bauer, who was herself an early representative of social housing in the United States.¹⁷ Nevertheless, the breakthrough in this field didn't come until the social movements of the 1960s. Architects such as Christopher Alexander, Richard Buckminster Fuller, Paolo Soleri and *builders* such as Steve Baer and Lloyd Kahn (editor of the magazine *Shelter*) as well as the initiators of the environmental movement sought to construct buildings for alternative visions of society. (Fig. 9)

The researcher

The expectations of professional institutions led to an increasing standardization of the architectural education during the course of the 20th century. Figures such as the educator, master or scholar were marginalized. The rhetoric of talent was replaced by the rhetoric of creativity, which corresponded more to the ideology of equality. Talent is not evenly prevalent in society, and for creativity one doesn't need such an individual gift because it can be stimulated by educational methods and "creative environments".

William Robert Ware, the founding professor of the School of Architecture at Massachusetts Institute of Technology (MIT) in the USA, published in 1866, only one year after the school had opened, a booklet about his program titled *An Outline of a Course of Architectural Instruction*, in which he demanded “really advanced research“:

A method of study more edifying for the students, it would be difficult to name; while for the profession it would establish at once a sort of architectural exchange, or clearinghouse for the interchange of knowledge and skill...¹⁸

To achieve this goal, the School of Architecture at MIT immediately initiated a huge archive collection with thousands of books, drawings, photographs, slides, models, plaster casts and material samples – at a time when the number of students could be counted on the fingers of one hand. Research was understood as material or construction experiments in the building laboratory. When Ware founded the School of Architecture at Columbia University in New York in 1881, he continued his ideas with a collection that was later placed in Avery Hall, a specially-designed building by McKim, Mead, and White, completed in 1912. He wanted to fuse the advantages of the “practical” English, “scientific” German and “artistic” French systems. However, Ware was forced to leave Columbia University already in 1903 when it was declared that his ambition to cooperate with other schools of architecture on the east coast of the US was detrimental to the outstanding reputation of the university.¹⁹

In the interwar period, research fields other than load-bearing structures became increasingly relevant. Questions such as the rationalization of building came to the forefront. The research at universities boomed after 1950 thanks to financial support from the state. Research no longer included only those activities that professors pursued in addition to their teaching, but also led to an increasing “scientification” of the education itself. Consequently, new institutes and professorships were founded specializing in such disciplines as construction engineering, statics, building physics, building preservation, architecture history, art history and urban history. Institutions such as Peter Eisenman’s *Institute for Architecture and Urban Studies* (IAUS), founded in New York in 1967, or the *Institut für Geschichte und Theorie der Architektur* (Institut gta) in Zurich, established that same year, focused on applying methods of critical theory in order to explore architecture as a cultural practice.

During the late-colonial and post-colonial period the new research topics of European and American schools of architecture acquired a new foreign policy dimension. At the time of the Cold War, several professorships were established in Eastern and Western Europe for the purpose of conducting research on specific climate- and culture-related tasks of architecture in the so-called Third World. It was a matter of development aid paired with the effort to bring about influ-

ence among competing systems.²⁰ After many former colonies gained political independence, from the 1960s onwards, they established their own schools of architecture, but which for a long time were forced to continue cooperation with the educational institutions of their former coloniser or those of their new allies.

As a result of the pan-European homogenization and standardization of higher-education qualifications following the Bologna reform in 1999, many schools of architecture needed to set new goals. Quite a few universities are now increasing pressure on the schools of architecture to link their research more closely to the interests of the economy by attracting third-party-funding, in line with the faculties of science and technology. Some results are evident in the field of computer-aided design methods, machine-fabricated production or sustainable building. Another field of research that has looked more critically at the market economy and the impacts of globalization was initiated by Rem Koolhaas in his “Project on the City” at the *Harvard Graduate School of Design* in the USA. Together with his students, he explored urbanization in the Pearl River Delta in China, the living conditions in the megacity of Lagos in Nigeria or shopping behaviour in different cities worldwide – shopping seen as the “last form of public activity”. Similar programs became popular also at various European universities.

Today architecture relies on research. Everything is guided by the idea of progress sponsored and accompanied by scientific research – from communication systems to experiments with the latest materials and industrial products that are tested for their architectural applicability. In this regard, architecture differs somewhat from the natural sciences and comes closer to philosophy. As opposed to a working method that uses axioms that are closely related to architectural thinking, research entails a critical evaluation of these supposed truths, including the ideological foundations of one’s own position and the development of one’s own method in solving a task. Most importantly, research in architecture should habitually surpass strictly set disciplinary boundaries.

Prospect

The architects as educators who combine various forms of knowledge have to think about the borders of their discipline: What are their responsibilities? Within which cultural fields shall they educate their students? It is not enough simply to follow Vitruvius and refer to different fields of knowledge. Today’s architectural education offers students more opportunities to get to know newly developed materials, technologies, media and design methods. But as soon as the initial fascination has passed the confusion becomes apparent: based on these additional options, has a contemporary education been established? Quite often we realize that the introduction of digital design and production technologies have not made the objective and purpose of architectural education any clearer – in fact, quite the opposite. The basics that are taught seem to be less secure than previously. Students realize this and try to find a hold in architecture theory, sociology or

urban research, or expect that at least they will learn certain techniques.

New technologies and materials have eroded established convictions. References to creativity or architectural quality are not helpful because the public increasingly challenges the role of architects as educators, including their values. The criteria for architectural success have become vague because it is no longer a question of function, beauty, sustainability, social issues or construction, but rather of media attention. Because of this situation, the word and behaviour of the educator carry a sustained weight, even though the hierarchical structure of many schools makes it difficult for students to establish a close relation to their professors.

The various educator types have developed several strategies or are bound to different traditions. Studio space may offer the opportunity to meet and where, moreover, research and experimentation can and indeed should be carried out. The typology of the architect as educator as it is presented here may help – despite unavoidable simplifications – to foster a certain self-reflection within schools of architecture. The new subject of architecture theory plays an important role as a reflective discipline that focuses on clarifying essential basic terms in our understanding of architecture. In any school of architecture there are as many different “design philosophies” as there are design professors. These design philosophies have the purpose of securing their own position, to present it as indubitable, and it is not in their interest to support critical thinking. Already the awareness that there are different systems, different educator types, that the educators have different social roles at their disposal, is important. The question of whether they really have a free choice, to what extent their disposition, lifestyle or environment are determining factors, cannot be explored here. Certainly individual or collective experiences are formative; they are “embodied” by the educator and become in a certain way part of the body, so that one can distinguish the scholars from the masters already by the way they talk or by their body posture.²¹ As stated in the beginning, although the individual figures of the educator are linked by their genesis to specific epochs, they nevertheless have a certain trans-historical presence. This continuity gives hope that despite attempts to introduce norms of scholarship the fruitful tension and interaction between the different roles of the educator will live on.

Notes

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1. Karl Scheffler, *Der Architekt*. Frankfurt a. M.: Rütten & Loening, 1907 (*Die Gesellschaft. Sammlung sozial-psychologischer Monographien 10*), 30–31.
2. Andrew Saint, *The Image of the Architect*. New Haven, CT: Yale University Press, 1983.
3. Charles Correa, “Learning from Ekalavya”, in Martha Pollak (ed.), *The Education of the Architect. Historiography, Urbanism, and the Growth of Architectural Knowledge*. Cambridge, MA: MIT Press, 1997, 445–452, here 445.
4. Anja Baumhoff and Magdalena Droste (eds.), *Mythos Bauhaus*. Berlin: Reimer, 2009, 130.

5. Friedrich Achleitner, "Der Wiener typologische Fatalismus (für Leopold Redl)", in Achleitner, *Wiener Architektur. Zwischen typologischem Fatalismus und semantischem Schlamassel*. Vienna: Böhlau Verlag, 1996, 165–174, here 171.
6. Correa, "Learning from Ekalavya", 452.
7. Erwin Panofsky, *Gothic Architecture and Scholasticism*. Latrobe, PA: The Archabbey Press, 1951, 23–26.
8. John Soane, *Sir John Soane's Museum. A Short Description*. London: Soane Museum, 2000.
9. Helene Furfján, *Glorious Visions. John Soane's Spectacular Theater*. Abingdon/New York: Routledge, 2011, 3.
10. Goerd Peschken, *Karl Friedrich Schinkel. Das Architektonische Lehrbuch*. Munich/Berlin: Deutscher Kunstverlag, 2001 (Karl Friedrich Schinkel. Lebenswerk 14) (first edition 1979), 1.
11. Gottfried Semper, "Vorschläge zur Reorganisation der Bauschule der Akademie der bildenden Künste zu Dresden, 26. Oktober 1834", in *Gottfried Semper 1803–1879. Baumeister zwischen Revolution und Historismus*, ed. Staatliche Kunstsammlungen Dresden, exhib. catalogue Albertinum Dresden, Munich: Callwey, 1979, 39.
12. Dolf Schnebli, "Was für die Hausfrau Betty Bossi ist für Schnebli Aldo Rossi", in: Ákos Moravánszky and Judith Hopfengärtner (eds.), *Aldo Rossi und die Schweiz. Architektonische Wechselwirkungen*. Zurich: gta Verlag, 2011, 45–54.
13. See Kurt W. Forster, "Architektur vor dem Verstummten retten. Rosis Zürcher Jahre als Transit", in Moravánszky/Hopfengärtner, 119–130.
14. Jean-Nicolas-Louis Durand, "Discours préliminaire", in *Précis des leçons d'architecture données à l'école royale polytechnique*, Bd. 2. Paris: Rey et Gravier, 1817, 1–20, here 20 (First edition Paris: Firmin Didot, 1805).
15. Jacques Lucan, *Composition, non-composition. Architecture et théories, XIXe–XXe siècles*. Lausanne: EPFL Press, 2009, 100–115.
16. Arthur Drexler (ed.), *The Architecture of the Ecole des Beaux-Arts*. New York: Museum of Modern Art, 1977.
17. Catherine Bauer, *Modern Housing*. New York: Houghton Mifflin, 1934.
18. William R. Ware, *An Outline of a Course of Architectural Instruction*. Boston, MA: John Wilson and Sons, 1866, 10.
19. See Joan Ockman (ed.), *Architecture School. Three Centuries of Educating Architects in North America*. Cambridge, MA: MIT Press, 2012, 74–78.
20. One of the first of its kind was introduced in 1954 in the design program "Tropical Architecture" run by Otto Koenigsberger, Maxwell Fry and Jane Drew at the Architectural Association (AA) in London.
21. Cf. Pierre Bourdieu's concept of "habitus" in Pierre Bourdieu, *Entwurf einer Theorie der Praxis auf der ethnologischen Grundlage der kabyllischen Gesellschaft*. Frankfurt a. M.: Suhrkamp Verlag, 1979, 139–202 (*Esquisse d'une théorie de la pratique, précédé de trois études d'ethnologie kabyle*. Geneva: Droz S. A., 1972).



BATTER THE BARRICADES

Mathias Mitteregger

In times like these ...
study carefully how the structure is made
because only then could you quickly push it over.
Don't build anything else
than a barricade.
(J. P. Takala, 1968)¹

Is there a place for architecture to be critical? And if so, what should it be critical about? Connected to one of the central principles of modern thought, these questions go beyond lamenting about the profession's current hardships, and address rather the larger struggle for status and power both within and outside the discipline. Today, the number of voices who either argue that our profession has been reduced to the status of a mere tool – used by others and for capitalist ends – or write and build in order “to try to turn pleasing [the establishment, neighbors, the budget] into a radical agenda” seems to be evenly balanced, with a tendency tilting toward the latter.² Either way, overwhelmed by the might of globalized real estate, which fills the account books and spreads nonchalance, to think about criticism in the field of architecture is also to think about categories of quality other than revenue measured in ever-decreasing fractions of time.

From breaking with the past to educating the many

The capacity for criticism is a central theme in some of the most influential theories of modern and late modern architecture. The discourse around it is revealing with regard to the self-understanding of the discipline and the position of architecture *within* or *against* the public. In architecture theory, its sources come from political theory and this is also why the answers given to the two questions stated above are always firmly tied to the status of the public and the political realm of the day, and thus are quintessentially modern. In a commentary on Kant's “*Zur Beantwortung der Frage: Was ist Aufklärung?*,” Michel Foucault maintained that modernity was not something that can be found in a calendar. Rather, to be modern is to have a particular stance toward the world. Being modern is a way of relating to the present day and putting an emphasis on how today differs from

<< Fig. 1: The rear courtyard of the “Looshaus”, Michaelerplatz 3, Vienna (Adolf Loos, 1911).

yesterday. It is to have a “deliberate, difficult attitude [that] consists in recapturing something eternal that is not beyond the present instant, nor behind it, but within it.”³ It is “the attitude that makes it possible to grasp the ‘heroic’ aspect of the present moment.” It is this attitude that opens the potential and need for critique. Kant’s answer, Foucault maintains, is the first instance when the contingent state of knowledge and the horizon established by the things we know had become part of knowledge itself and part of philosophy.

The master builders of early and high modernism follow this principle. To the shock of its aristocratic neighbors, Adolf Loos’ Michaelerplatz building in Vienna cried *Kiss my [rear façade]*,⁴ and Le Corbusier was prepared to mingle with the most horrifying ilk history has seen in order to create his vision of a new society and city. Save only for Norman Foster’s Gherkin in London – which an ingenious location scout chose as the set for the sequel to *Basic Instinct* – and OMA’s CCTV in Beijing (and their replicas), architectural expressions of Loos’ kind today are brusque, and seem to be out of fashion or impossible to build.⁵ Le Corbusier’s ambition to reform society through architecture, however, continues to be influential.

The influence the Frankfurt School had on the social sciences and other disciplines after the Second World War is crucial for an understanding of late modern architectural thought. As late as 1980, Jürgen Habermas declared, thus continuing the argument of Theodor Adorno and others, that all systems of specialized knowledge need to overcome the “false sublation of culture” and seek dialogue with the public.⁶ But within the realm of aesthetics and criticism, all bonds of necessity were removed to guarantee true autonomy. In Habermas’s opinion, this Kantian disinterest will ensure that “the quality of a work [will be] determined quite independently of any connections it might have with our practical relations to life.”⁷ Architects (and all the arts) could use this argument to insist that their promise was not one of a contingent present, but the scope of their creations shifted further toward the future. What they were planning was the emancipation of society.

As we shall see, Hannah Arendt, although relying on completely different sources, reached the same conclusion.⁸ This promise of the future became the basis for two branches of late modern architecture theory, critical regionalism and the debate on the autonomy of architecture respectively. What they have in common is that their influence on architectural thought goes well beyond their arguments about the characteristics of a desirable architectural practice. Because both critical regionalism and architectural autonomy start from reflections on the state of the public realm (and not from the history of architecture or technological progress, for example), their value and impact can be found in both contemporary neo-minimalist projects as well as in the eerie hegemonic aspirations of parametricism.⁹ It seems likely that these arguments will gain further momentum at times when there are reasons to question the current state of the political and public realm.

How could pieces of architecture educate the society in which they are built? Kenneth Frampton has argued that his notion of critical regionalism could be productive in that sense. To understand his reasoning, it is valuable to look at his sources. Arguably, the most influential thinker for Frampton was Hannah Arendt.¹⁰ A cornerstone of Arendt's view on public and private human deeds, as well as critique of modern consumerism, is that there exist, or rather have existed, objects that out-live their makers. These objects of permanence play a crucial role within a society. In serving more than one generation, they store social conventions and provide a common ground that "gathers us together and yet prevents our falling over each other."¹¹ People who *work*, that is, who produce these monuments of everyday life, play an important role in constructing the stage of *action*, for Arendt the highest thing humans are capable of.¹² As we glance around worriedly at IKEA's Billy, Pax and Malm, we see that Arendt would argue that such a society that only produces things that are merely consumed is not necessarily one of human beings. The connection to the past and future is lost, the public realm has collapsed, and we, living in modern society, have lost our status of being human.¹³ Such a society is composed of labouring animals – that is all there is to say.

The way out of this state is seductive for architectural theory. According to Arendt, a society needs the *homo faber*, the monument builder in order to restore and unite. In this vein, Frampton argued that "the practice of Critical Regionalism is contingent upon a process of double mediation. In the first place, it has to 'deconstruct' the overall spectrum of world culture which it inevitably inherits; in the second place, it has to achieve, through synthetic contradiction, a manifest critique of universal civilization."¹⁴ To work at the margins of industrialized production demands a "high level of critical self-consciousness."¹⁵ In Frampton's view, true pieces of architecture are those that not only outlast their maker, but also reveal something eternal and essentially truthful about the place they inhabit or the public that they accommodate.¹⁶

The debate on autonomy in architecture, too, relies on its critical stance toward "culture". K. Michael Hays aspires to an architecture that is "resistant to the self-confirming, conciliatory operations of a dominant culture and yet irreducible to a purely formal structure disengaged from the contingencies of place and time."¹⁷ As with Frampton before, architecture is presented as the art of establishing eternal things. "Culture" and its current state are seen as the central hurdles to be overcome. Hays explains:

By culture, as I shall use the term here, I understand a conceptual unity comprising, on the one hand, the theoretical and practical systems which authorize, promote, or constrain the production and use of ideas and objects and by which a society or place dif-



Fig. 2: Galaxy Soho shopping centre and surrounding district, Beijing, Zaha Hadid Architects, 2012.
Photo: © Courtesy of Iwan Baan.

ferentiates itself and maintains its hegemony; and on the other hand, the artefact and environments which endure as resourceful physical precedents or exemplars if systems of production and become transmitters of culture.¹⁸

The connection to critical theory is obvious if we compare Hays' definition to one provided by Habermas:

I use the term *culture* for the stock of knowledge from which participants in communication supply themselves with interpretations as they come to an understanding about something in the world. I use the term *society* for the legitimate orders through which participants regulate their memberships in social groups and thereby secure solidarity ... Material reproduction takes place through the medium of the purposive activity with which socialized individuals intervene in the world to realize their aims.¹⁹

The arguments by Frampton and Hays lead to similar conclusions, and by looking at them in detail some parts that may seem contradictory can be clarified. Both started out as architectural theories that were supposed to have the many, the public, at their hearts. Yet both of them reach the conclusion that the public and all the things it is producing as a culture should be ignored or actively rejected. Frampton makes a list of items the critical regionalist should take into account. The list includes items of world culture that should be opposed or of a nature that the architect should account for when "cultivating a site."²⁰ Writing on what an autonomous discipline might be capable of, Hays points at Ludwig Mies van der Rohe's unbuilt proposal from 1921 for Friedrichstraße in Berlin. Against the noise of the metropolis, the huge masses constitute a "silence" that creates an opposition and, taking an idea from Martin Heidegger, "open up a clearing ... in the chaos of the nervous metropolis."²¹ Although this might not be the case for the pieces of architecture that the proponents of either critical regionalist or autonomous architecture have had in mind, one can see how the common appraisal of particular grim-looking pieces of architecture is related to these initial arguments.

Aiming criticism and choosing a forum

Looking at the ideal of emancipation and also its origins in early modern thought, we see that the conclusion reached by the architectural theories in aiming criticism at the status of the public is one of creating more possibilities. If we agree that criticism is essential to working on the subject and bringing it into focus, then it has to be clarified what the subject was and what forum one is participating

in. From the things said above, we can idealize four basic ways of criticism or reflection, all of them apparent in architecture and all of them a process inherent in criticism tending toward idealization.

First, there is the *criticism of the individual*. This sort of criticism, which turns against the thinking mind itself, made the artist the ideal modern character for Foucault, Hegel, Baudelaire and Habermas. In Habermas's view, the impact of the artistic lifestyle was so extensive that it became the mould for modern consumerism. This way of reflecting on the givens of our mind and body also brought us the important insights of post-structuralism and gender studies, and which made it necessary to face the idiosyncrasies of our thoughts while planning. Following on from insights from Baudelaire, Foucault points at the important mix that constitutes the mind-set of the artist who is "in appearance a spectator, a collector of curiosities." He uses a quote from Baudelaire about Constantin Guys on the "transfiguration" the true artist is capable of; that he is "endowed with an impulsive life like the soul of [their] creator."²² But through an ethos of work, his will and patience, the artist is able to capture what everyone takes for granted and to expose his essential truth. Partly quoting Baudelaire, Foucault writes:

[W]hen the whole world is falling asleep, he begins to work, and he transfigures the world. His transfiguration does not entail an annulling of reality, but a difficult interplay between the truth of what is real and the exercise of freedom; 'natural' things become 'more than natural', 'beautiful' things become 'more than beautiful', and individual objects appear 'endowed with an impulsive life like the soul of [their] creator.'²³

This does not seem to be restricted to the realm of the arts. After the conflation of art and technology at the end of the last century, art, technology and organization today form a new totality, completing the process sketched out above.²⁴

Second, there is the *formal criticism of thought*. *Techne*, the learnt practice that can reveal a certain truth, is essential in this form of critique. As an example of this formal criticism we can take the aesthetics of Joshua Reynolds. In his *Discourses* of 1797, he maintained that "disposition to abstractions, to generalizing and classification is the great glory of the human mind."²⁵ The artist ought to reduce the idea of beauty to a general principle. Against "temporary ornaments ... the Professor of painting proceeded in the same method, when he shewed you that the artifice of contrast was founded but on one principle." Reynolds is "convinced that this is the only means of advancing science, of clearing the mind from a confused heap of contradictory observations, ... bringing them under one general head, can alone give rest and satisfaction to an inquisitive mind." Emil Kaufmann's theory on the process of how autonomy in architecture was established is a case in point: starting from the detached and autonomous build-

ing, developing it from its inherent functional qualities and leading toward an independent architectural language. This form of criticism is part of all expert knowledge and typically circulated within the field itself.

Third, there is *criticism of the public*. As a means of constructing social difference and to elevate oneself above others, it is a claim for authority. This is not particular to the field of architecture, but it can be found in all autonomous fields where people are defending their integrity, creating “the idea of identity” in the community and, finally, claiming a singular position typically in association with a special relation with truth. It is not inherent in all systematic forms of knowledge. It is the subject of political philosophy and, more recently, social and economic theories. Its appearance and prominence in architecture (and other arts) is less straight forward. Some of its origins were traced above.

Fourth, and finally, there is *systematic criticism*, or *reflexivity*, directed against one’s own perspective toward the world. All other forms of criticism mentioned above make it a necessity. Aristotle made it a precondition for acting politically – the practice of *theoria*. For Kant, this last form of criticism is essential for all systematic fields of knowledge and philosophy. This form of criticism is directed toward systems of thought and brought forth, taking from and being part of the public at large.

Systematic criticism

The etymology of the word *system* indicates how systematic criticism can be connected to specialized modern knowledge. *Systēma* was used in antiquity to denote a “whole compounded of several parts or members,” used for political and religious councils, for technical instruments, keys and the entirety of the cosmos. Medieval scholarship used *systema* in the same way it used the term *corpus*, denoting the whole of religious articles. In its first modern use, scholars spoke of the *systema mundi* in direct relation with antique scholarship. Thus, Galileo Galilei considered the entire cosmos in his *Dialogo sopra I due massimi sistemi del mondo* of 1632. The *systema mundi* is the proportional relation of all celestial and earthly bodies.²⁶

The meaning changed with the Copernican Revolution. The term was then used to speak of more moderate undertakings. *System* and *hypothesis* now belong together, forming an alliance that is no longer exclusive but relative. Astronomers, just like architects, lost their ability to consider the cosmos and at the same time the entirety of things, but now work with hypotheses. That means that a variety of systems are always possible, and there is no need or basis to favor one over the other. In fact, Andreas Osiander, writing the preface for the Copernican *De revolutionibus orbium mundi*, the book so crucial for Kant, already reminded his readers:

... it is the duty of an astronomer to compose the history of the celestial motions through careful and

expert study. Then he must conceive and devise the causes of these motions or hypotheses about them...

...

[However] Let no one expect anything certain from astronomy, which cannot furnish it, lest he accept as the truth ideas conceived for another purpose, and depart this study a greater fool than when he entered.²⁷

The Copernican hypothesis is no more the truth than the Ptolemaic or even any astrological hypothesis, it is “just” a different one.²⁸ In the classical ideal, in philosophy, science, art and architecture, the only possibility for justification that extended beyond the horizon of belief is the *mos geometricus* of mathematics and geometry. Only in the pure clarity and from the proportional relation of the *mos geometricus* could philosophers expect something to be true. But as the coherence of the cosmos and its parts had fallen apart, the geometrical justification became obsolete. And it was Kant who was the first to formulate another general possibility.

To Kant, a system is “the unity of the manifold cognitions under one idea.” We must therefore “[u]nder the government of reason” unify all cognitions under a “system, in which they alone can support and advance its essential ends.”²⁹ In a complex public realm that allows autonomy for its various systems, fields and disciplines, it cannot possibly be held together by one general mode of justification. But Kant wants to use autonomy and not shy away from its freedom, the freedom seen by some as methodological *horror vacui*. Kant calls free acting a *play* (*Spiel, Spiel der freien Kräfte*) that will be sincere if and only if all participating assets are brought in harmonic relation without force.³⁰ For him there is no contradiction in having autonomous views unified in a common public realm. Instead, working as part of a system, criticism can be established by acting or exposing oneself and the shortcomings of the field within which one engages to the common context of the public realm.

Returning to architecture, Aldo Rossi, in presenting his take on an autonomous discipline of architecture, argued that architecture was the *science of the city*.³¹ He maintained that the city was full of *urban facts*, a notion he took from Ludwig Wittgenstein.³² Wittgenstein maintained that “all that is the case” is so within “a system in which consequences and premises give one another *mutual* support.”³³ Rossi’s facts are factual within the system in which he thinks and operates, and that is architecture. But Rossi, too, cannot resist presenting architecture as working from and producing eternal things. In his effort to argue for the vigor of an already challenged discipline, he leaves behind the Wittgensteinian relativism for the deadlock of the objective science of the city.³⁴

The swagger in writings on architecture, the appeal to the universal, seems to emerge when the author and audience feel the decline of the discipline. Like in a locker room speech, where it is possible to turn the status quo upside down, the might of architecture is exaggerated as the profession clings on to its status. It

cheers up the author and audience, but is likely to disguise the less fleeting value of what is being said. The important contribution of all the theories discussed above is to question the state of the discipline and its systematic shortcomings. This form of criticism is eminent in the production of the Modern Movement, with regard to the appropriate use of material, for example. This is not to shy away from the problems of society or be uncritical towards it. As Arendt has shown, building can be, amongst many other things, a powerful critique of modern consumerism. To make a meaningful contribution, however, it might be better for architecture to be modest about its capabilities and skilful in its practice, and to point its most rigorous criticism against its own systematic failures.

Notes

1. J.P. Takala, "Ajattelle," *Arkkitehti*, 8/1968, 13. English translation by G. Griffiths. The part of the poem shown here was first brought to my attention, in his German translation, by Kari Jormakka.
2. See, for example: Reinier de Graf, "Architecture is now a tool of capital, complicit in a purpose antithetical to its social mission," *The Architectural Review*, 24, 2015; and Bjarke Ingels Group, *Yes Is More – An Archicom on Architectural Evolution*, Köln: Taschen, 2010, 12.
3. Michel Foucault, "What is Enlightenment?" in *The Foucault Reader*, edited by Paul Rabinow, New York: Pantheon Books, 1984, 39.
4. Loos' choice for "kalkputz" (lime plaster) over stone in Vienna's city center and his insisting on using it as "skin," could only be seen when entering the courtyards of the nearby buildings. See: Adolf Loos, "Wiener architekturfragen," in Adolf Loos, *Sämtliche Schriften*. Wien & München: Herold, 1962, 296-300.
5. Peter Bradshaw, "Basic Instinct 2," *The Guardian*, March 31, 2006: <https://www.theguardian.com/culture/2006/mar/31/5> (accessed 1.12.2017). Bradshaw argues to the contrary that the set was "implausible." Xiao Mo, "The Structural Similarity of the CCTV Headquarters and Hindquarters," 2004; reprint available at: http://http://www.danwei.org/architecture/rem_koolhaas_and_cctv_porn.php (accessed 1.12.2017).
6. Jürgen Habermas, "Modernity: An Unfinished Project," in Maurizio Passerin d'Entrèves and Seyla Ben-Habib (eds.), *Habermas and the Unfinished Project of Modernity: Critical Essays on The Philosophical Discourse of Modernity*. Cambridge, MA: MIT Press, 1997, 45.
7. Habermas, "Modernity: An Unfinished Project," 47.
8. Despite the fact that Arendt had nothing good to say about the Frankfurt School, referring to them as "Schweinebande" [a bunch of pigs]. *Hannah Arendt & Heinrich Blücher, Briefe 1936-1968*, München & Zürich: Piper, 1996, 127.
9. Pier Vittorio Aureli said that the work of his office Dogma Aureli is "local," because it is about Europe, "which is [currently] not in a good shape," an architecture for the ongoing transition of the European welfare state "towards a new condition." See: Pier Vittorio Aureli, Lecture at the California Collage of the Arts, March 3, 2014: <https://youtu.be/qlWQT4l8Elc> (accessed 1.12.2017). A proprietor of Neo-Minimalism, David Chipperfield curated the Venice Architecture Biennale in 2012 with the focus on "the political, social and public realm architecture is a part [of]." He is interested in the current state of these realms and does not intend to get lost "in a morass of sociological, psychological or artistic speculation." See: <https://www.domusweb.it/en/news/2012/01/17/chipperfield-s-biennale.html> (accessed 1.12.2017). Patrick Schumacher argues that parametricism is the only answer for all post-Fordist societies. Patrick Schumacher, "On Parametricism": <http://www.patrikschumacher.com/Texts/On%20Parametricism.html> (accessed 1.12.2017).
10. The anthology of Frampton's theoretical texts, published in 2012, is titled *Labour, Work, Architecture*, obviously appealing to Arendt's famous triad of Labor, Work and Action. See: Kenneth Frampton, *Labour, Work and Architecture: Collected Essays on Architecture and Design*. New York: Phaidon Press, 2002.
11. Hannah Arendt, *The Human Condition*. Chicago, IL: The University of Chicago Press, 1958, 52.
12. "The vita activa, human life in so far as it is actively engaged in doing something, is always rooted in a world of men and of manmade things which it never leaves or altogether transcends. Things and men form the environment for each of man's activities, which would be pointless without such location." Arendt, *The Human Condition*, 22.

13. Arendt, *The Human Condition*, 320-325. A very similar claim is made by Richard Sennett, who follows Arendt's argument in many important aspects. Richard Sennett, *The Fall of Public Man*. London: Penguin Books, 1978.
14. Kenneth Frampton, "Towards a Critical Regionalism: Six Points for an Architecture of Resistance," in Frampton, *Labour, Work and Architecture*, 82.
15. Frampton, "Towards a Critical Regionalism," 82. See also: Kenneth Frampton, "The Status of Man and the Status of his Objects," in *ibid.*, 24-43.
16. For Frampton's take on Heidegger and the concept of *techné* see: Mathias Mitteregger, "Working toward truth," *Wolkenkuckucksheim, Internationale Zeitschrift zur Theorie der Architektur*. Vol. 19, Issue 33, 2014, 19-28: cloud-cuckoo.net/leadadmin/issues_en/issue_33/article_mitteregger.pdf (accessed: 1.12.2107).
17. K. Michael Hays, "Critical Architecture: Between Culture and Form," *Perspecta*, Vol. 21, 1984, 15.
18. Hays, "Critical Architecture," 29, fn 1.
19. Jürgen Habermas, *The Theory of Communicative Action, Volume 2: Lifeworld and System: A Critique of Functionalist Reason*. Translated by Thomas McCarthy. Boston, MA: Beacon Press, 1987, 144.
20. Frampton, "Towards a Critical Regionalism," 86.
21. Hays, "Critical Architecture," 22.
22. Foucault, "What is Enlightenment?," 41. See also: Charles Baudelaire, *The Painter of Modern Life and Other Essays*. Translated by Jonathan Mayne. London: Phaidon, 1995, 11-12.
23. *Ibid.*
24. Peter Hall, *Cities in Civilization*. New York: Fromm International, 2001, 943-989
25. Joshua Reynolds, *Discourses on Art*. London: Collier-Macmillan, 1969 (1797), 52.
26. Friedrich Kampartel, "'System' und 'Begründung' als wissenschaftliche und philosophische Ordnungsbegriffe bei und vor Kant," in Friedrich Kampartel, *Theorie und Begründung*. Frankfurt am Main: Suhrkamp, 1975, 29-30
27. Andreas Osiander cited in David Luban, *Legal Modernism*. Ann Arbor, MI: University of Michigan Press, 1997, 21.
28. Luban, *Legal Modernism*, 31.
29. Immanuel Kant, *Critique of Pure Reason*. The Cambridge Edition of the Works of Immanuel Kant. Edited and translated by Paul Guyer and Allen W. Wood. Cambridge: Cambridge University Press, 1998, B861.
30. Immanuel Kant, *Critique of Judgment*. Translated with introduction and notes by J.H. Bernard (2nd ed. revised). London: Macmillan, 1914, §9.
31. Aldo Rossi, *The Architecture of the City*. Translated by Diane Ghirardo and Joan Ockman. Cambridge, MA: MIT Press, 1984, 160.
32. In *L'architettura della città* (1966) Rossi calls those facts "fatti urbani." For the English edition this was translated as "urban artifacts" and in the German edition as "städtebauliche Sachverhalte," both times obscuring the link to Wittgenstein. This point was made by baukuh, "Die Architektur der Stadt; Das nicht gehaltene Versprechen," *Arch+* 214, 2014, 15-27: <http://www.archplus.net/home/archiv/artikel/46,4192,1,0.html> (accessed 12.1.2017).
33. Ludwig Wittgenstein, *On Certainty*. Translated by Denis Paul and G.E.M. Anscombe. Oxford: Blackwell, 1975, § 142.
34. "Ich kann mich auch irren, aber es scheint mir, dass, seitdem die Architekten sich diese bescheidenen Ziele setzten, nur die erreichten Ergebnisse sehr bescheiden sind." ["I may be wrong, but it seems to me that because the architects are setting these modest goals, the results will only be very modest."], Aldo Rossi, "Il convento de la Tourette di Le Corbusier," *Scritti scelti sull'architettura e la città. 1956-1972*. Milano: Clup, 1975, 138; as cited in baukuh, "Die Architektur der Stadt," 16.

LIFE ON THE EDGE: FICTITIOUS BOUNDARIES IN THE DESIGN OF ROMANTIC SUBURBS

Doug Graf

According to Plutarch, as the first act in the founding of Rome, Romulus and Remus requested that a priest define the limits of the new city by cutting the turf with a plow. Thus, at the very beginning, the only necessary visible manifestation of the city was its perimeter. The association of the city with its boundary registers in areas ranging from etymology (town=*tun*, an enclosed piece of land, *burg*=town with walls) to imagery, such as this diagram of Constantinople reduced to its monuments and walls (Fig. 1). Even if there was not actually a physical barrier, a view from the outside the city which isolated it as a distinct entity gave clarity to the visual idea of the city, a clarity that often became difficult to find internally, especially as cities became larger and more differentiated.

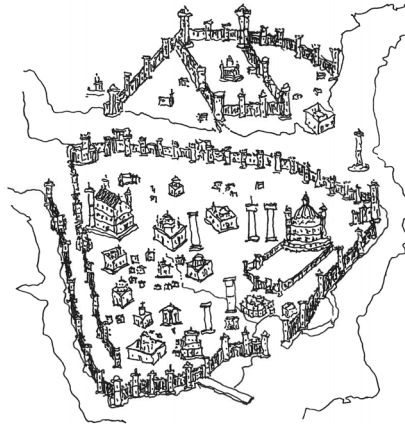


Fig. 1.

With the explosive growth of cities in the 19th century, especially in their residential districts, the usual accretive formula for new housing was found increasingly deficient and alternative suburbs began to be sought, not just in terms of configuration, but also isolation. An early example could be found in the community organizing around Clapham Common, south of London, in the late 18th century, and certainly the general formula of picturesque isolation with Romantic complexities had already reached its first apotheosis in the formulation of Blaise Hamlet in Bristol, England (John Nash, 1811) (Fig. 2). However, the general pat-

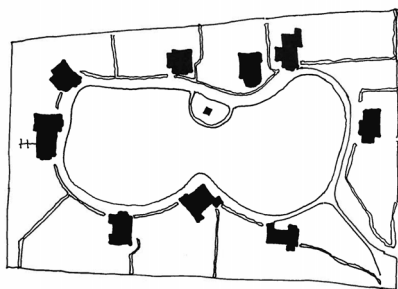


Fig. 2.

tern for these communities was to be visually organized around the interior, which made them less effective as urban entities and also left them vulnerable to easy incorporation and disappearance into the encroaching sprawl of the metropolis.

Alternative strategies involved greater degrees of isolation by undeveloped parkland, as perhaps exemplified by the Stray and the Valley Gardens in Harrogate, a north England spa town whose reserves of open space, starting in the 17th century, were considered part of its attraction and are extraordinary in scale (Fig. 3). With enough investment, a reservation of isolating open space will prevent incorporation into the city and maintain town identity.

This is a strategy still utilized in the planning of Poundbury in Dorset, also in the UK, which employs open space buffers to articulate the “town” – in fact



Fig. 3.

a suburb of the town of Dorchester” – from the fabric (Fig. 4). However, by the second half of the 19th century, an alternative strategy had emerged which used a fraction of the land to achieve a similar effect. Rather than merely establishing a buffer, the strategy was enlarged to include specific themes and views. These involved creating the impression of the suburb being sited in either forest or farmland, where the views ‘out’ were as important as the views ‘in’. These spe-

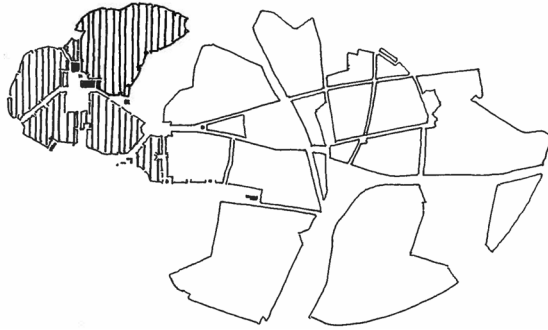


Fig. 4.

cial views were targeted at specific moments, such as arrival points, in order to maximize the impression on the greatest number of people. This made it possible to greatly increase the impact of the impression of isolation, while at the same time greatly reducing the amount of actual open space needed. Furthermore, the designs were organized in such a way as to minimize any impression of other, more realistic, understandings of the site. Visual memorability of the 'theater of arrival' supplanted reality to create impressions that were both cheaper to produce and more dramatic in impact. Three examples of this strategy are Riverside, outside of Chicago, and Bedford Park and Hampstead Garden Suburb, on the outskirts of London.

Riverside

The new suburb of Riverside, Illinois (Fig. 5), was designed by Frederic Law Olmsted in 1869, roughly ten years after winning the competition (with Calvert Vaux) for a design of a new central park in New York. The site was eight miles west of Chicago on a site made accessible by a plank road and, more particularly, a railroad that had been constructed to connect Chicago with Mississippi river port towns. For the railroad, the addition of a new station to increase passenger revenue along the route was merely a bonus. The particular location chosen was the point at which the railroad crossed the Des Plaines river at a particularly bendy moment. The configuration created as a result was a cross axis formed by the east-west route of the railway and a north-south armature which terminated in a lobe of heavily forested land across the river to the south. The station, the main roadway, and the water-tower were to the north (Fig. 6). Since arrival and departure from the town would be almost exclusively by train, the location of the station was a key element in the organization of the town.

The local shops should be located in close proximity, so that the same ease of access to transportation would also accommodate access to groceries, hardware, etc. Together, the station and the local shops were located along the periphery of a space that, in a vague way, had many of the qualities of a town green, although

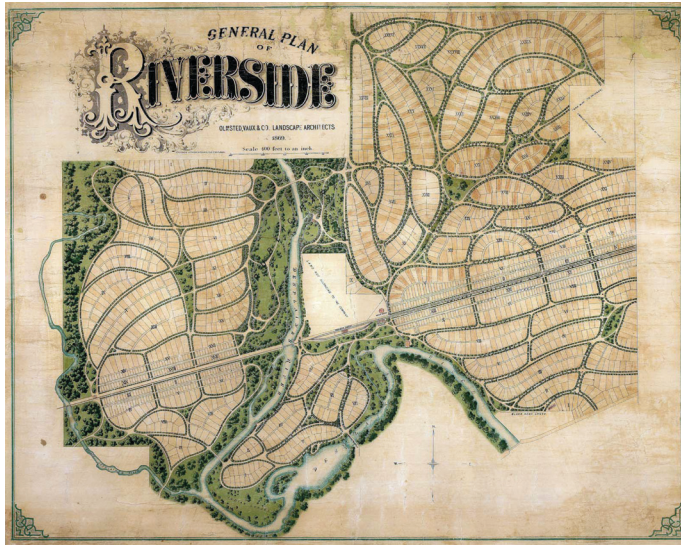
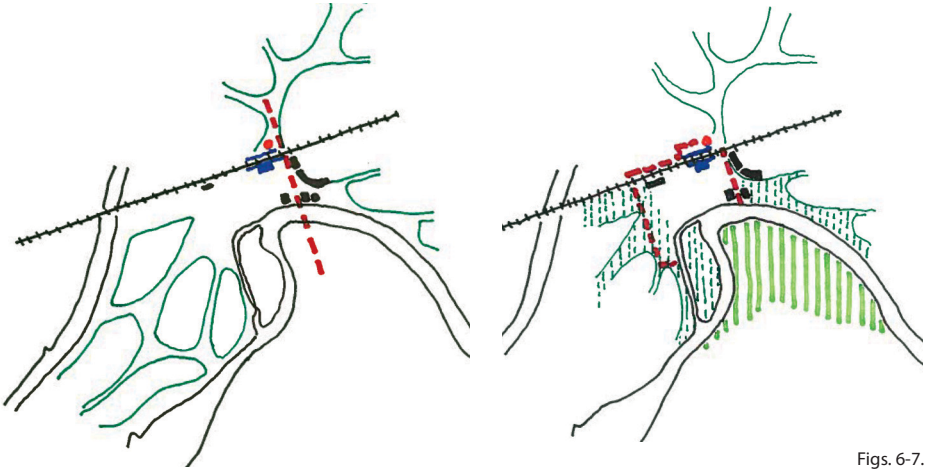
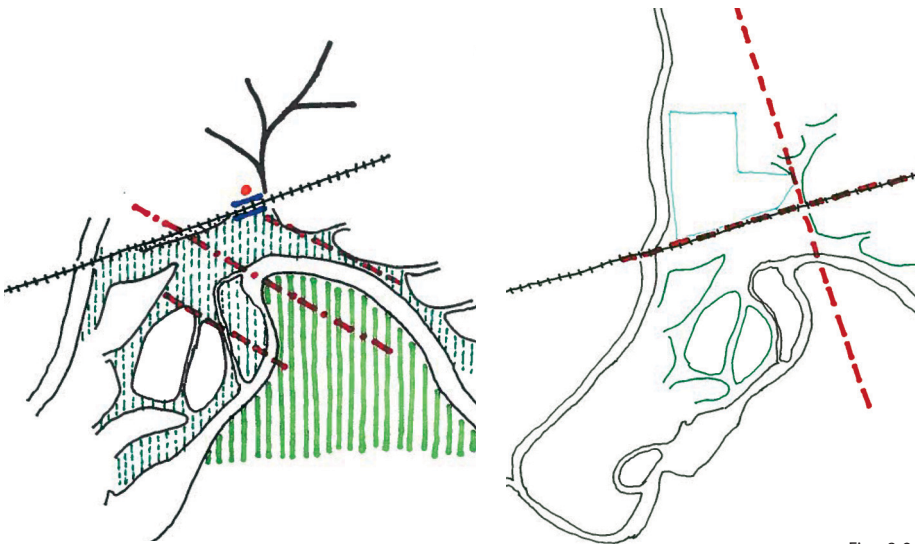


Fig. 5: General plan of Riverside, Illinois, Frederick Law Olmsted and Calvert Vaux, 1869.

it was perhaps a bit unkempt, a bit undefined, and a bit meadow-y (Fig. 7). On the south side of the 'green', opposite the station, were located a succession of town buildings – school, library, town hall – which suggested an edge to the space, but as free standing objects identified themselves as special and also allowed the view to continue beyond them to the river and the forest. This view would be available to anyone using the shops or the station, but also to anyone riding past in the train, especially as the area to the west was also kept free of development, thereby greatly enlarging the opportunities to look into the space from a moving train carriage (Fig. 8). In fact, any development along the south side of the tracks to the west of the town was pushed back to create a substantial area that both buffered the town from the noise and danger of the tracks, but also enlarged the area from which this particular area of the town could be observed from the train. An east bound train would cross the Des Plaines river in a forested zone that would merge into the buffer area, then the forest/meadow and finally the town green, around which would be arrayed the central functions of the town. The organization was essentially a piece of narrative choreography in which gradually increasing evidence of urbanization would culminate in the arrival at the town center, with its collection of public buildings and shops and its sense of enclosure and isolation and finite 'centeredness', in juxtaposition to the endlessness of the prairie. The forested aspect of the area around Riverside would have been substantially reduced by 1869, as the extremely fertile and deep topsoil was quickly attracting new settlers from 1830 onward. The forests in Riverside would essentially act as a preserve, maintaining the original landscape,



Figs. 6-7.



Figs. 8-9.

while the area around transitioned into farmsteads with the occasional woodlot. In fact, the demarcation of this reserve in the plan was easy to make since most of the area was located in the floodplain of the river and, therefore, unbuildable.

Anyone approaching from the north, where the bulk of the village property lay, anyone passing through town on the train, or anyone using the station to enter or leave the town would experience the centrality of the town green, see the public buildings as particularly special objects demonstrating urbanity and

civilization, and then view past them to the landscape of the dense forest beyond. The quality of this landscape and its prominent location within the town diagram served to reinforce the idea of the town's location: here was a place of elegance and civilization carved out of and juxtaposed with the 'forest primeval'. Its density of forestation, its essential isolation by the river, and its discrete configuration as a particular entity by the sharp bend in the river all served to dramatize a series of oppositions – man/nature, town/wilderness, vacuous/dense, civilized/dangerous – which served to firmly fix the idea of the town as an urban outpost eternally surrounded by the endless forest. Interestingly enough, there were two parcels of land the Riverside developers never owned: the chunk of property just northwest of the station and this piece of land across the river. Olmsted must have been counting on the floodplain to keep development away from this area and, fortunately, that has proven to be the case, but it was a seemingly dangerous gamble.

The railroad and the north/south axis effectively divide the larger, eastern part of the site into four quadrants (Fig. 9). The smaller, western portion of the site across the river was clearly a bit of an afterthought and was never developed according to the original plan. Clearly, the southwest quadrant is most favored as it has so much river frontage, while in the largest quadrant, the northeast, most of the area is effectively detached from the river. This potential problem is resolved by a strategy which generates the street system and also addresses the prominence of each individual house: each house in the town is sited on a street which runs into some sort of green space which connects directly to the town center and the station, shops, and public buildings. Everyone's house seems to be situated with what would normally have been the privileged position of the minority.

In the large northeast quadrant, this strategy is exemplified by the Long Common, half boulevard, half green fissure, which extends from the town center, passing the water tower, and running generally northeastwardly while it spews out secondary arms that become adjacent residential streets (Fig. 10). The triangular-shaped areas from which these streets spring serve to make the boundaries of the Long Common more ambiguous, especially along its southern reaches. At its northern end, it fans out to become a park in its own right, and the extra width is used to create a lawn/meadow roughly in the center of the quadrant. There are further outbreaks of triangular 'meadow moments' to the north and northeast of this area, making more ambiguous the hierarchy of figurality between the blocks, the streets, and the landscape. There are very few intersections in this area which are configured merely as two crossing streets. Instead, the strategy is both more vehicular (one thinks of Sitté's traffic intersection diagrams) and thus technomorphic, and at the same time riverine, and therefore biomorphic, in this case fusing the village metaphor of civilization versus landscape into one dualistic entity.

Given the roadway/landscape tendrils which mark so much of the plan, it is perhaps surprising that the organization of the street pattern of this quadrant against the stretch of river to the northwest conforms to such a rigid boundary. Certainly it would have been possible to employ the same device here, whereby

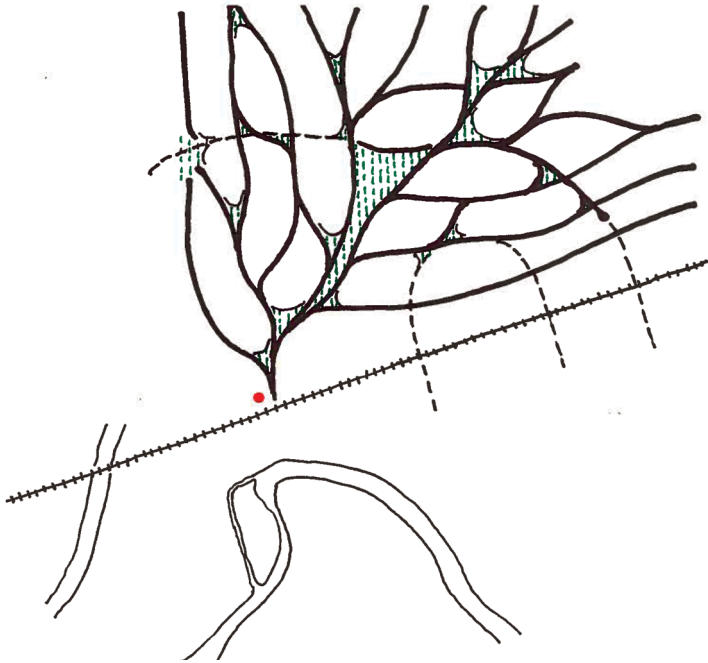


Fig. 10.

arms of green would have extended into the fabric of the neighborhood. Instead, there is only one east-west street reaching this border. There might be a number of reasons for this. Olmsted may have felt that nothing could interfere with directing emphasis of the area back to the center which favored a north-south orientation, or he may have suspected that the money would never be expended to construct his park landscape along this section of the river (which was correct) and, thus, make any connection to it less valuable.

As a result of the particular shape of the Des Plaines river valley and the location of the diagrammatic north-south axis, there really is no northwest quadrant other than the unacquired land and the river parkway. The southeast quadrant has many of the general features of the north-east, except that the main residential streets run uniformly east-west and the role of the Long Common is played by the river's edge to the west (Fig. 11). The intersections here are constructed to emphasize their continuation to the north-west towards the town center. Those living far to the east of the river are compensated with a small park, which tenuously connects back to the 'parklets' emerging from the end of the Long Common and which gobbles up the carriageways of the streets in a fashion typical of the northeast quadrant.

The southwest quadrant is the recipient of the plan's most luxurious attentions (Fig. 12). The roads from the Town Center swoop along the rivers and along green fingers penetrating the small peninsula. Every block has at least some edge



Fig. 11.

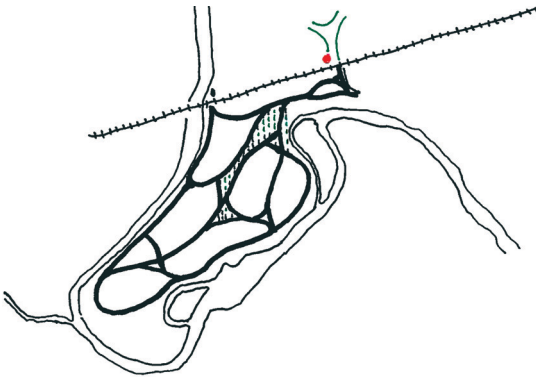


Fig. 12.

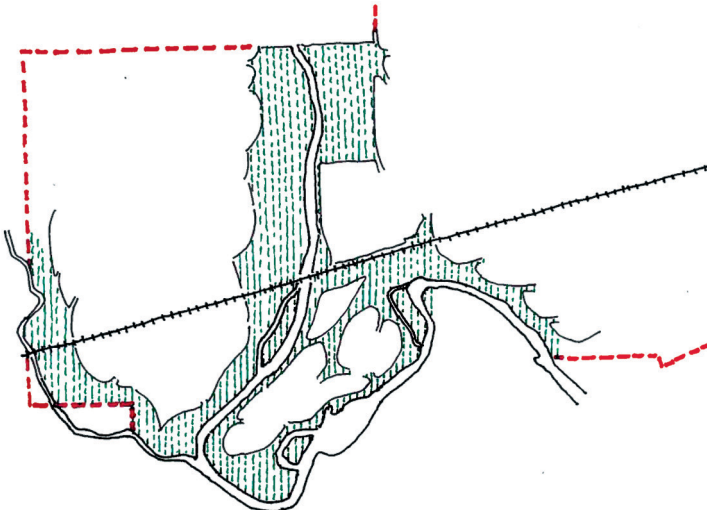


Fig. 13.

facing the river greenway and the slightly deficient central area is compensated by its proximity to more tendrils of green. The tight bend in the river causes this neighborhood to be almost completely surrounded by park (Fig. 13). The desirability of this area is further signaled by the fact that Frank Lloyd Wright's two Riverside designs are here. The area to the southeast is particularly noteworthy. The central park gradually extends along this shoreline, incorporating a small island which was constructed in the bottom-land beside the river. This spot, Picnic Island, reached by a small bridge from the western shore, was symbolically detached from the town and, as an island, equally linked to the forests on the far side. Thus, it represented a middle landscape between city and wilderness, a conceptual refuge from the city. Farther south, the park extends this metaphor by becoming increasingly wild. There is another island, this time separated by a wider channel and unconnected by bridges, becoming a more remote, more primitive version of Picnic Island, accessible only to canoeists, more adventurous children, and squirrels.

Bedford Park

Development of Bedford Park (Fig. 14), west of London, was begun in 1875 in a situation reminiscent of Riverside. A new station was built on an existing railway at Turnham Green. The plan was largely designed by E.W. Godwin, and later by Richard Norman Shaw, and, although the site is very different, there are shared strategies with the Illinois plan. There was no river present, but there was

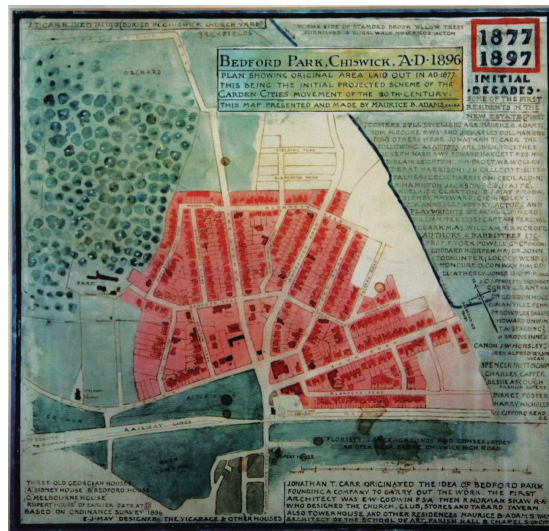
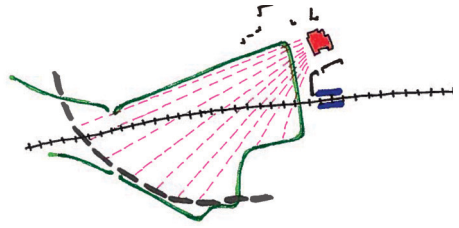
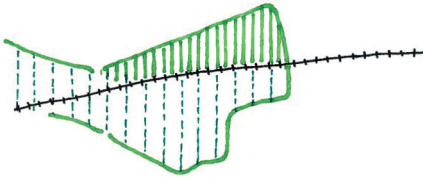
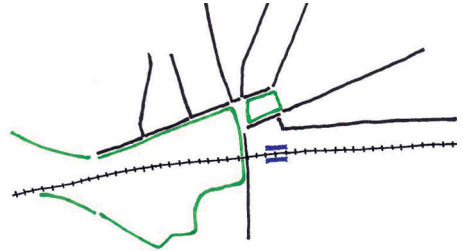
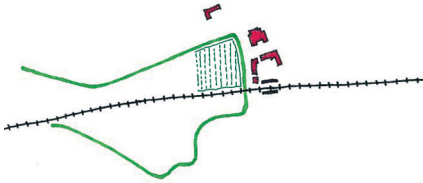


Fig. 14. Bedford Park, London; original plan, James Carr, 1877.



Figs. 15-16.



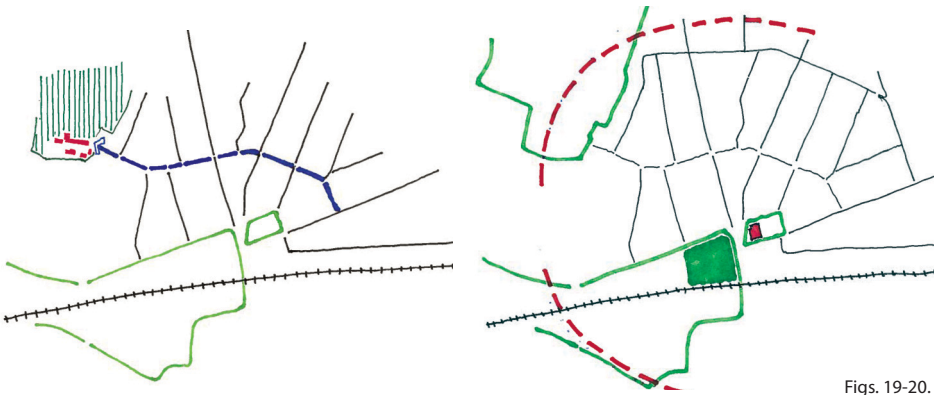
Figs. 17-18.

an adjacent existing common to the southwest. The railroad crossed the common to the north, leaving a long, narrow strip of land along the northern edge. To the west, the 'town' was pulled back from the railroad to maintain a discrete distance (Fig. 15). As at Riverside, this served to buffer the community from the noise and dirt of the train and at the same time to provide views, sunlight, and recreational space for the adjacent houses. Also like Riverside, it provided riders on the train a long view of the developing village to the north, culminating in the village center where the shops, station, and particularly the church were located, after which, the train right-of-way plunged back into built fabric (Fig. 16).

The shape of the common, the location of the railroad, and the layout of the new streets created two larger areas, east and west, connected by an attenuated green space. The eastern space was similar to the 'town green' at Riverside in that it suggested confinement and isolation on three of its sides, but the fourth was undefined. Like Riverside, the town shops and the station were clustered along the eastern edge of the open space and the isolated space of the common became something more like the 'town green' in this immediate area (Fig. 17).

Also as in the Illinois example, houses tended to be located on streets which in one direction connected directly to the town center or that stretch of the common which was effectively the town center (Fig. 18). As at Riverside, the streets might continue forever in the other direction.

Similar to Riverside, the London suburb zoned the land adjacent to the tracks east of the Common for workshops and artisan's houses. Like Riverside's south-east quadrant, but unlike the north-east or south-west, Bedford Park's streets tended to differentiate themselves as to whether they constituted long blocks lined with houses, or short blocks connecting the long streets. The first cross street is located at the end of a relatively short block, while the next block is considerably longer.



Figs. 19-20.

This tends to put more emphasis on this street in particular (Fig. 19). Rather than continue to the area of artisan housing and workshops, it begins more salubriously at the first radial coming out of the town center, connecting to the pub, the church, the shops, and the station. Crossing all the other radials, it continues vaguely counterclockwise until it terminates in the west at an area marked 'Farm'. This was a sort of farm, where there was a barn and cows and chickens which could provide the village with a local source of milk and eggs and a place for the children to acquaint themselves, at least to a limited extent, with things rural. It served the additional function of establishing another conceptual 'edge' for the village, which as a result could be understood as bounded by the open landscape of the Common on one side and the bucolic countryside of the Farm on another. The rest of the boundary wasn't made clear by the plan but one might surmise from the available evidence provided by the plan that, between the meadows of the common, the animal pens of the farm, and perhaps the suggestion of a perimeter street, the town was isolated in an agrarian landscape (Fig. 20).

Hampstead Garden Suburb

Hampstead Garden Suburb (Fig. 21) was begun in 1906 in the hills north of London. At the time, the area was just beyond the built-up districts of the city. The site was selected for a number of reasons. It was close to London and even closer to Hampstead, which was a pleasant hilly retreat from the sprawl of London below and was relatively fashionable, particularly as a neighborhood of choice for artists. As such, it was the scene of significant new investment in the last quarter of the 19th century in the form of houses designed by architects such as Richard Norman Shaw. It was also the site of the contemplated acquisition of a substantial chunk of land to be kept open for public use, perhaps a bit surprising as Hampstead Heath, which it was to adjoin, was already one of the largest parks in London. Perhaps the biggest attraction, however, was the future extension of the Northern Line subway to the area, with stations proposed at Golders Green

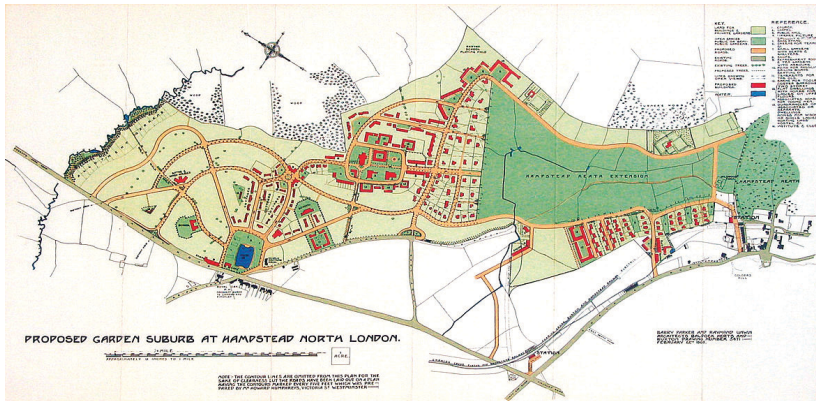


Fig. 21: Hampstead Garden Suburb, London, Raymond Unwin, 1906.

and North End, just to the southwest of the project. This would give the neighborhood easy and quick access to the rest of metropolitan London.

The initial plans were prepared by Parker and Unwin, who had designed Letchworth three years earlier. Unlike Letchworth, the project was never intended to have an employment base, nor a self-sufficient retail component. There were almost constant revisions made over time by the designers, eventually including Lutyens. Unlike the previous examples, Hampstead Garden Suburb was designed to have two foci: one was civic, comprised of two churches, a school, and a green public square, the buildings of which were all designed by Lutyens, and the other was commercial, consisting of two buildings which formed a gateway into the project from Finchley Road, designed by Unwin's office (Fig. 22). In many ways, the two complexes couldn't be more different. The former was a vast square at the highest point within the development, with the two churches isolated on either side of its center, while the commercial buildings created a street wall along Finchley Road and formed a gateway into the residential area and a connection into the surrounding community. The designers seemed to have realized that as the area developed, this western edge, the road for which ran directly to the

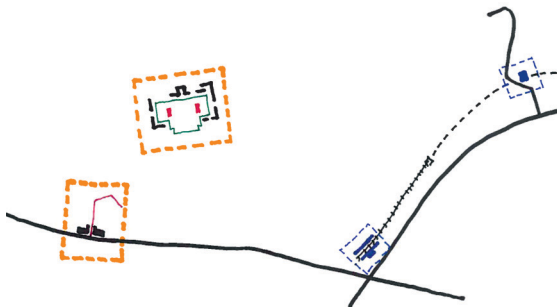
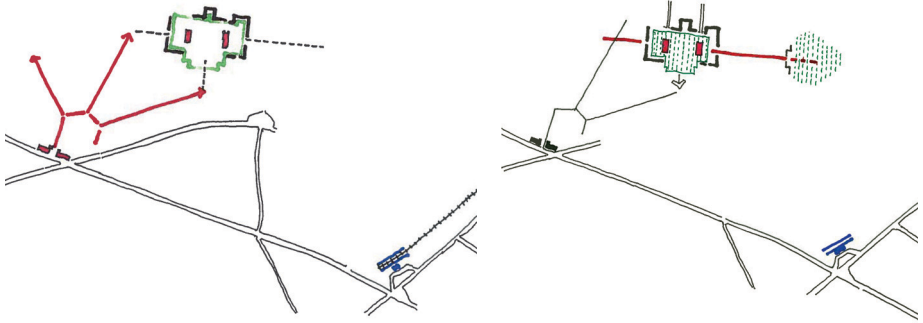


Fig. 22.



Figs. 23-24.

Golders Green station and then on to Swiss Cottage and Regents Park, would become a major commercial thoroughfare of which the suburbanites could avail themselves by passing through this gateway.

These two foci, one central to the development, one peripheral, were not directly connected by the road system. The road, Hampstead Way, which extends into the property from the commercial gateway on Finchley Road, was ingeniously designed to also provide direct connections into the adjacent residential areas in a manner vaguely similar to the strategy used at Riverside, but here in a much more geometrically precise formulation, whereby every juncture caused the main road to careen off to the right, while a tributary road careened off to the left at a similar angle (Fig. 23).

One might think that this would be an easy way to establish a connection between the two centers, but this does not happen. Instead, the civic center sits at the heart of another system. Between the two churches is the central part of the main square, maintained as a public garden, symmetrically fronting the school to the east (Fig. 24). The symmetry is reinforced by the fact that the two churches, although different designs, are comprised of similar volumes and they are vast, especially when seen in their isolation. The two streets leaving the square to the east are centered on the apse ends of the churches. In the other direction, the two churches, and especially the church towers, are connected by the other axis of the square, running north-south. To the north, this axis connects in one block with one of the armatures being spun off Hampstead Way. To the south the axis conforms to Heath Gate, which leads out to Hampstead Heath extension, the piece of land that was bought to increase local public open space (Fig. 25). This street is formally quite striking as it aligns with the towers of the churches and contains along it a number of memorable moments: the square at the first intersection of a major cross street, Meadway, the gate that marks the end of the roadway, followed by a descending stairway, a wide grassy lawn, flanked by benches and a final stairway leading down to a large open meadow.

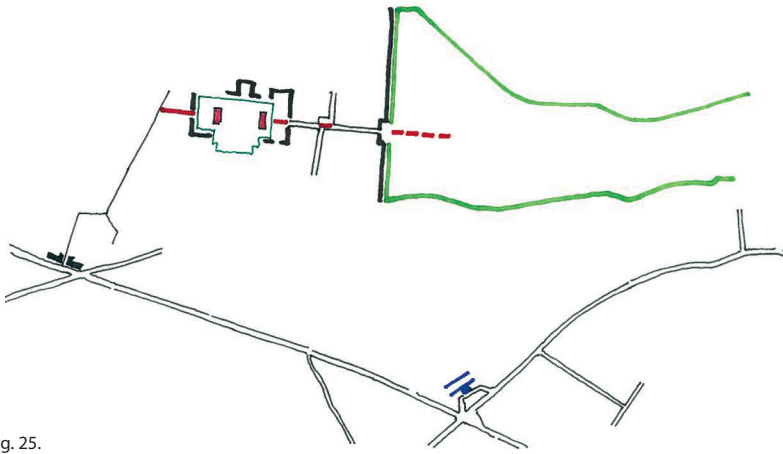


Fig. 25.

This juxtaposition of formal urban armature with the informality of the grassy field is a startling opposition, as though one is leaving the familiar confines of the town and heading off across a vast sequence of meadows to the forest, visible in the background. One is reminded of the similar structures at Riverside or Bedford Park, the view from the town square across the river to the woods, in the case of the former, and the view from the town center into the common or the route through the town to the ‘bordering’ farm, in the case of the latter. In these cases, however, the view in the opposite direction is less operative. At Riverside, presumably one never makes it any further across the river than Picnic Island and the view back to the town square is not particularly impressive given the section of the riverbank, the size and coverage of the trees, and the relative size and distance of the actual buildings. At Bedford Park, the view back from the farm is not particularly noteworthy, although the view from the train across the common to the town is fabulously effective.

At Hampstead Garden Suburb, however, the view back from the meadow is really the main event. It’s not just the view of the axis in reverse. A new feature comes into the picture here, the ‘town wall’, which bounds all the development of the suburb at this particular edge (Fig. 26). It is noteworthy not just for its presence, but also its height, its length, its composition and its deceptive scale. It is a brick wall about 3 meters high, along which is sprinkled the occasional two story building (actually garden pavilions and playhouses). These create a syncopated variety and animate the scene behind, to produce more the effect of something a bit denser and less layered than merely the rear aspect of a suburban street, something with more of the complexity of an actual town. The effect for someone who had entered the suburb at a different location, wandered out to the meadow, and turned around to return, must have been amazing, for one was now looking at an entity which didn’t really conform to the spatial impressions or sequences he had just experienced. At Hampstead, however, the intended viewer

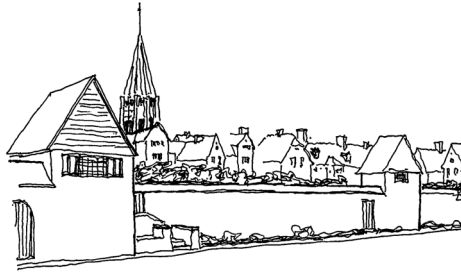


Fig. 26.

is really meant to be arriving at the town rather than departing from it, as the Golders Green underground station is nearby. In fact, the nearest route from the station that enters the Garden Suburb is Rotherwick Road, which led inevitably to the meadow and to a three quarter view of the 'Town' in the distance, behind its wall, and in the center of it, an oblique view of the tall towers of the two churches. Originally, there was to be another station at North End, which would have offered similar opportunities of approach (Fig. 27).

This station was never completed, largely because the Heath Extension eliminated the possibility of future development and, thus, future passengers. In any case, the end result is that for many visitors the first view of Hampstead Garden Suburb, after the pleasant streets adjacent to the underground station unexpectedly terminate in the grassy meadow, is the surprising view of what seems to be a *Gemeinschaft*-laden medieval town, protected by a perimeter wall articulated with watchtowers. This is also the view for many residents of the suburb when they return home from the train. This recurring view argues that they live in a rather charming town which is isolated in a vast meadow on the edge of the forest. In this construct, the Suburb is essentially exurban.

The Finchley Road gateway hardly figures into this formulation. Here, the impression is that the suburb is, if anything, actually an extension of the city,

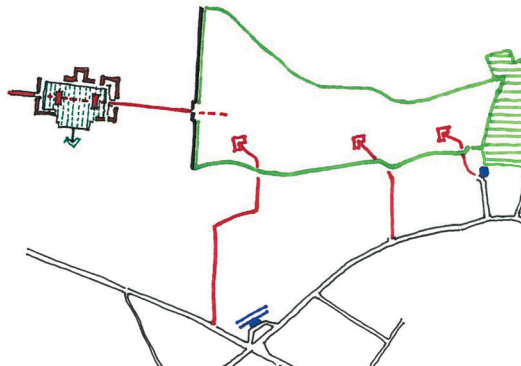


Fig. 27.

pleasantly, if demurely, locked on to one of its significant urban arteries. Thus, the residents are confronted with two different arguments for their location. Given certain tasks or pathway choices, they will find themselves living in an expansive neighborhood within the vast sprawl of the city, and given others, they will find themselves residing in a tightly and hierarchically articulated town in the middle of the landscape. Certainly this impression would be reinforced for anyone walking out of the Heathgate and proceeding directly across the meadow, rather than veering right for the Underground station. Even after they entered the Heath, it would be miles before they encountered any substantial urban fabric (Fig. 28).

Thus, the resident can decide where he or she lives depending on the current moment and whether desirous of the city or the country. Riverside and Bedford Park both offer something similar, the two trajectories away from town or towards the center, the former being towards the woods across the river in Riverside, or towards the farm at Bedford Park, while the latter in both cases is toward the village center and the train station.

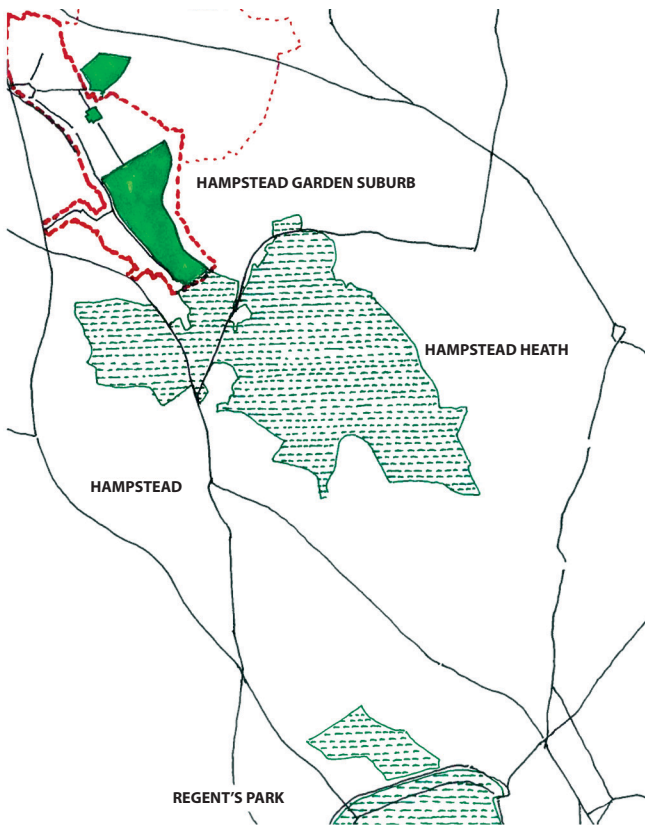


Fig. 28.

Neither of these, however, is able to offer the view of the village isolated in the country in quite the way that Hampstead Garden Suburb does, nor are they able to make it so primary and memorable an impression. There is no isolated figure of the town offered at Bedford Park and one is unlikely to make it to the swampy forest on the far side of the river, much less arrive in the town from there at Riverside. And neither is able to offer a connection to the larger city as part of its coherent visual narrative. Instead, both undramatically ‘bleed’ out into the surrounding fabric. At least at Riverside, at the village edges, there is a major street boundary and a visible change in street layout.

There is another moment in Hampstead Garden Suburb that elaborates this argument of perceived location. Several additions were made to the initial land acquisition for the Suburb. One of these was 412 acres northeast of the Civic Center. Rather than extend the road network directly into this area from the center, the immediate parcel of land, heavily forested and known as “The Big Woods”, was kept in its natural state. Various pathways were cut into it (Fig. 29). One was the extension of one of the streets pinwheeling off Hampstead Way, Temple Fortune Hill, in order to connect with the new lands to the east. Another connects Bigwood Road to the east of the Civic Center to that portion of the new lands to the north. The easiest and quickest way to get between any of these areas was to walk through the Big Woods, approximately 18 acres of old growth forest, dense enough to be dark and spooky even on a sunny day, small enough to be crossed in a few minutes. The land rises to the west and south and falls to the north and east, so traversing The Big Woods also involves experiencing some of the Suburb’s most dramatic topography, accentuating its otherness as ‘the world of nature’.

Those living in the more recently acquired lands must traverse the woods to reach the Civic Center (and the underground station), or the Finchley Road gateway and the local shops, a device which places the additional development in ‘outlier villages’. Although one can cross the woods in a few minutes, a sense

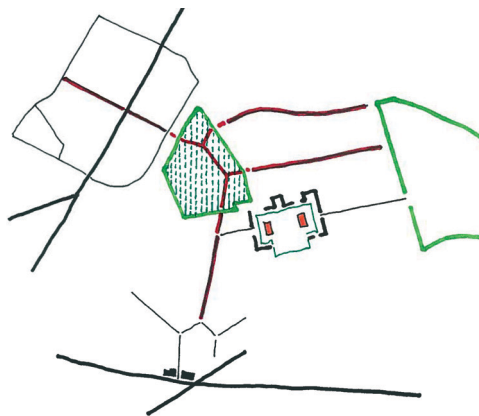


Fig. 29.

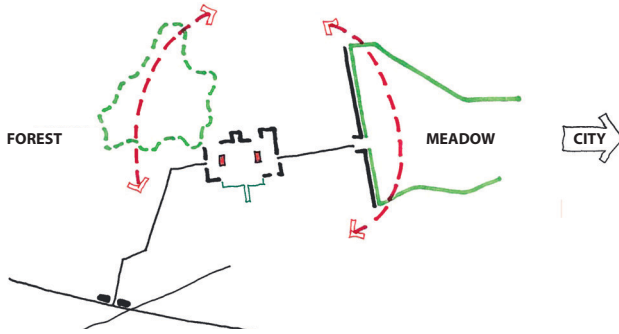


Fig. 30.

of mystery is created by that fact that the paths bend slightly, so as to not permit a direct view to the edge from interior areas. Moreover, within the general vagueness of the interior area, the one moment that is made significant is the point at which the main paths intersect, marking a place and a central, if slight, moment, where the modest spookiness is compounded with a modest sense of being lost.

With regard to the general plan of the original section of the Suburb, The Big Woods act as another boundary, even wilder and more remote, working in conjunction with the meadow and in contrast to the Finchley Road gateway. In the first case the meadow and the woods conspire to create the idea of encircling nature, containing a valence differing between pastoral landscape of the meadow and the wilderness of the forest (Fig. 30), while in the second case, the forest and the Finchley Road gateway are opposites, mediated by the middle landscape of the meadow, too pastoral to be urban, but also too pastoral to be wild (Fig. 31). Like the wooded areas along the river in Riverside, and to a lesser extent the Farm at Bedford Park, the manipulations of the plan offer the residents at least the impression, if slightly fictive, of 'a world of difference', where living seems to be organized by a privileged relationship to complexities and amenities of the village center, while also offering the suggestion that if this is civilization, nature itself is just beyond the village boundary, a place where one can truly live a life on the edge.

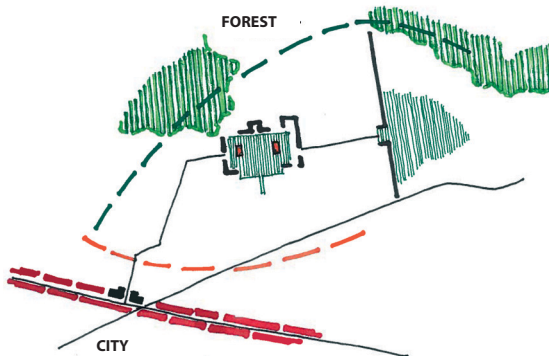


Fig. 31.

IN DEFENSE OF ARCHITECTURAL HISTORY

Jacqueline Gargus

In the eighteenth century, the German art historian Johann Joachim Winckelmann posed a question about taste: Is good taste innate or can it be learned?¹ Are you either born a genius or forever condemned to mediocrity? Does study help you improve? Winckelmann maintained that taste (and by extension, excellence in design) could be learned and cultivated. He uttered a paradoxical statement: “The one way for us to become great and perhaps inimitable is by imitating the ancients.”² Winckelmann advocated connoisseurship, and believed that taste could be improved through exposure to great examples from the past. He also advocated critical analysis and took care to distinguish “copying” from “imitation.” While the former involved only superficial appearances, imitation aimed at extracting and *re-presenting* essence to address new criteria, programs, materials, and social situations. James Larson observes: “In the course of distinguishing imitation from copy, Winckelmann has shifted the locus of imitation from model and product to the intervening process.”³

German philosopher Georg Wilhelm Friedrich Hegel illustrated the use of precedent in his method of dialectic logic, comprised of three imbricated parts: thesis, antithesis, and synthesis. An idea emerges: “thesis.” It is countered by an opposite idea: “antithesis.” A new idea is forged from the union or opposition of the two: “synthesis.”⁴ The Hegelian dialectic is not linear, i.e. it does not simply move forward, nor is it cyclical, i.e. it does not simply recover the same ground. Rather it advances forward and upward. The German word *Aufhebung* (sometimes translated as “sublation”) describes the complex action of the dialectic, at once meaning overturning, overcoming, preserving, and lifting up. Dialectical synthesis displaces the reference point so that each synthesis recasts the terms of the previous debate at a higher level.

The dialectic is embedded in the very nature of architectural history. Early historians go back in a direct chain of influence to Hegel. Franz Kugler, teacher of Jacob Burckhardt, was a student of Hegel; Heinrich Wölfflin was a student of Burckhardt; Rudolf Wittkower, Ernst Gombrich and Paul Frankl were all students of Wölfflin, and Nicholas Pevsner and Sigfried Giedion were students of Frankl.⁵ When Wölfflin wrote his seminal books *Renaissance and Baroque* (1888) and *Principles of Art History* (1915), he organized his discussion in terms of dialectical pairs: Renaissance versus Baroque, linear versus painterly, and so forth. The dialectical method is fundamental to any discussion of architectural history, in

which two images are discussed, side-by-side. Implicit in the comparative method is a belief that nothing emerges in a vacuum, but that change arises as a critical reaction to historical constraints.

Clearing the slate of history and rebuilding architecture on a *tabula rasa* was a desideratum expressed by early Modernists, and yet the best of them, Le Corbusier and Ludwig Mies van der Rohe, were obsessed by history and especially antiquity.⁶ Trained in the Beaux-Arts tradition, they attacked tradition not by rejecting it and dwelling on novelty or personal material – that was the task of the Expressionists. Instead they strategically engaged history, using Winckelmann’s kind of imitation. They collected, examined and analyzed historical examples, drew out lessons, and combined them synthetically with other images, impulses and types. They mined and undermined history to devise something new, but something discursively related to the material it superseded. One technique used by both Le Corbusier and Mies van der Rohe was the transformation of ideal historical paradigms, such as the Greek temple or ideal villa. Carefully designed around numerical relationships, ratios, recursive golden rectangles, and refined Hellenic orders,⁷ Greek temples meld together the objective clarity of mathematics and the subjective power of muscular, tectonic form, exaggerated and made thematic by means of optical corrections. The value of the classical temple as a reference point is established because its design does not arise from the whim of an individual but from the collective contributions of a people over time.

Although he did not visit Greece until 1959,⁸ Mies was powerfully influenced by antiquity, and believed that classical qualities of order and proportion offered “an antidote to the ‘chaos’ of modern life.”⁹ His late work engages in an undisguised flirtation with antiquity and the works of Karl Friedrich Schinkel, but even his early work plays with historical precedents. Mies’ German Pavilion at the 1929 Barcelona Exposition relies on a sleek, abstract, minimal de Stijl construction of slipped planes in space. The dynamism and asymmetry of Mies’ project contrasts sharply with the Exposition site plan (Fig. 1), a symmetrical Beaux-Arts composition, fleshed out with heavy historicist buildings. Surprisingly, the Barcelona Pavilion terminates the major cross axis through the complex, and even more surprisingly, Mies went to some effort to secure the site.¹⁰

How does Mies respond to the spatial implications of the cross axis and the organization of the Exposition? One of his strategies is to address the cross-axis in a deliberate but oppositional way, emphasizing asymmetry, simplicity, materiality, and transparency. Another more subtle strategy is his adoption and fragmentation of the temple type, thereby fixing the meaning of his building against a legible ground. There are uncanny similarities between the Parthenon and the Barcelona Pavilion. Both rest on platforms or *stylobates* of similar shapes, and both have something of an inner chamber or *cella*, flanked by parallel rows of columns. Proportions and constituent parts of the Barcelona Pavilion relate to those of the Parthenon, and dismantled elements from the Parthenon can be recomposed to assemble a diagram of the Barcelona Pavilion (Fig. 2). Even the statue of the

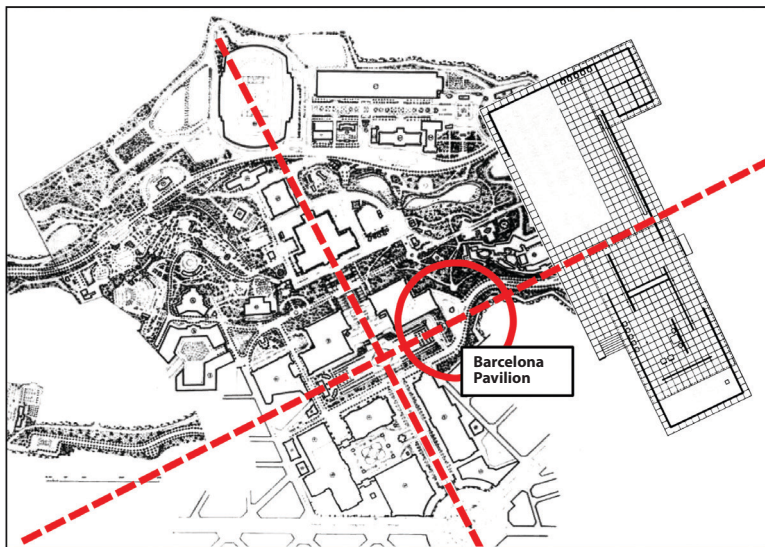


Fig. 1: The Barcelona Pavilion split by the cross axis of the 1929 Barcelona Exposition site plan.

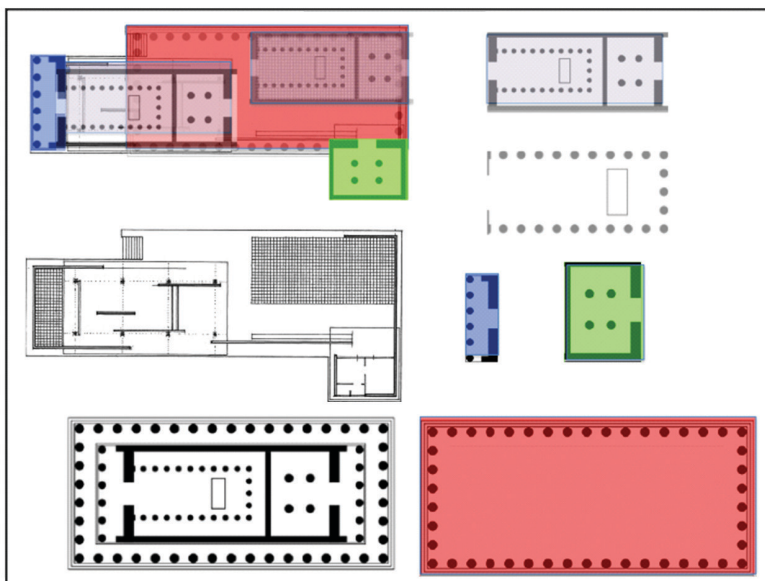


Fig. 2: The Barcelona Pavilion, generated by re-assembling parts of the Parthenon.

cult figure, hidden away at the Parthenon, is revealed at the Barcelona Pavilion, embodied by the Georg Kolbe statue in the small reflecting pool. At the Parthenon the *cella* is intact and enforces strict separation between interior and exterior space, but the enclosure in the Barcelona pavilion is fragmented and sundered, as though an axis had crashed through it, which is indeed the case. The cross-axis hits the center of the Pavilion complex, pushing the *cella* in one direction and the *stylobate* in the other. To the left is the large reflecting pool (a trace of the displaced temple); to the right is a dematerialized glass box (its temple origins marked by the rectangular layout of columns). Mies honed his compositional technique by looking at De Stijl projects, such as Rietveld's Red-Blue Chair (1918), in which bars of material are pulled apart and re-engaged in a dynamic new way, or Theo van Doesburg's *Rhythm of the Russian Dance* (1918), a painting, which almost proposes a linear network for the Barcelona Pavilion. By shifting and reassembling planes, the delimited, sacred space of the temple is opened up and space is democratized. The openness, transparency and informality of the Barcelona Pavilion demonstrate the difference between the progressive values of Weimar Germany compared to those of monarchist Spain, represented by the rigid structure of the Beaux-Arts site plan. By situating his design so closely to an historical model, Mies makes his critique more pointed and more intelligible.

Le Corbusier is the twentieth-century Modernist most preoccupied with history, and paradoxically, his passion for history led him towards his most radical, innovative work. One of his earliest buildings is the Villa Fallet (La Chaux-de-Fonds, 1905), a refined National Romanticism variation of the Swiss chalet, with a steeply pitched gable roof, expressive materiality, and a vernacular Swiss painted façade (Fig. 3). The execution of the Villa Fallet is skillful, but it is hardly progressive. Its ambition is aimed at evoking nostalgia, national identity, and picturesque charm rather than pursuing the heroic modernist project that Le Corbusier would set for himself in his later works: mass, surface, plan, and volume bathed in light.



Fig. 3: Le Corbusier, Villa Fallet, La Chaux-de-Fonds, 1905.

In 1911 Le Corbusier went on his Voyage to the East – a trip through Greece and the Mediterranean basin. During his travels, he examined and sketched everything, from classical temples to Byzantine churches and simple Greek villages. Le Corbusier’s confrontation with antiquity and Mediterranean architecture was transformative. When he returned, in lieu of National Romanticism, he embraced a personal kind of abstraction and demonstrated this style in the Villa Schwob (Le Chaux-de-Fonds, 1917) (Fig. 4). Colin Rowe has shown how Le Corbusier critiqued Palladio’s Villa Malcontenta (Mira, 1560) with his Villa Stein-de Monzie (Garches, 1927),¹¹ but Palladio’s Villa Rotonda (Vicenza, 1552) is an even more famous and paradigmatic example of Palladio’s oeuvre, and one whose symmetry and closure challenged Modernist desires for dynamic form and the integration of interior and exterior space. In the Villa Schwob, Le Corbusier proposes a re-formulation of the elements of the Villa Rotonda, aiming to redress the isolation of the center and open it to the landscape.

The composition of the Villa Schwob is difficult and provocative. The street façade is deliberately ugly and awkward, featuring a spindly portico surmounted by a stark, empty square panel (Fig. 4e). The rejection of conventional aesthetic and compositional values forces the viewer to find new criteria to understand the façade. It must be “read”, rather than admired as an aesthetic object. The blank façade panel suggests many things: the celebration of pure geometry; the flattened

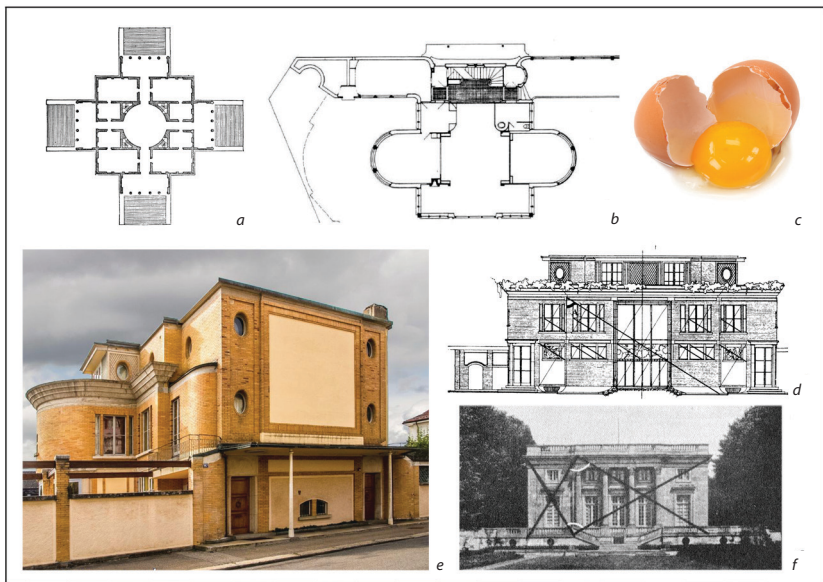


Fig. 4: a. Andrea Palladio, Villa Rotonda; b. Le Corbusier, Villa Schwob, plan; c. Cracked egg; d. Villa Schwob, garden elevation; e. Villa Schwob, street elevation; f. Ange-Jacques Gabriel, Petit Trianon, with regulating lines drawn by Le Corbusier..

elevation of a white Mediterranean house; an elevation diagram of the square plan; a rhetorical display of the absence of ornament. However, at the Villa Schwob Le Corbusier does not simply eliminate ornament. Rather, he recontextualizes it. Two rounded lobes punched with arched Byzantine windows and crowned by heavy projecting cornices, extend outwards from Villa Schwob's cubic central volume. The embellishments seem out of place, as if Le Corbusier were using ornament strategically, to apply a legible code to different systems in the building. If the diagram of the Villa Rotonda (Fig. 4a) involves the concentric superposition of the square and the circle, then here Le Corbusier has cracked the two elements apart (Figs. 4b-c). The ornamental curved detritus of the once-closed center is pulled to the perimeter and space and light are liberated in the central void, which opens to the garden. Le Corbusier subverts the type of ideal villa in yet another way. Instead of allowing the villa to act as a centralized object, the Villa Schwob is pushed to one edge, and the villa is embedded into the garden wall. The result is a bar/object configuration, with a hard street edge contrasted against an object-like garden pavilion. Additionally, in *Towards a New Architecture* (1923) Le Corbusier illustrates Ange-Jacques Gabriel's Petit Trianon (Paris, 1768) (Fig. 4f), traversed with regulating lines, to demonstrate the proportional system used in the Villa Schwob (Fig. 4d). Le Corbusier does not copy the appearance or even phenomenal characteristics of one project or style, but rather he synthesizes a new whole from multiple sources.

Mies likewise tackles the challenge posed by the Villa Rotonda in the Tugendhat House (Brno, 1929) (Fig. 5a-b). As at the Barcelona Pavilion, he deploys slipping planes against the datum of a columnar grid. As the play of solid and void spaces develops from level to level, Mies demonstrates how four porches can enhance difference and variety, rather than reiterate the same strategy each time, as in the Villa Rotonda (Fig. 5c). The Tugendhat House has an east-facing entry porch, a west-facing belvedere overlooking the garden, a north-facing terrace on the main level, and a south-facing winter garden. In another sense, the whole house is a porch. Living room windows retract into the plinth, transforming the *piano nobile* into a loggia, open to the breezes. What becomes of the rotunda in this scheme? Mies liberates the circle from its surrounding square wrapper by slicing it in half and permitting the zebra-wood hemicycle to play against the field of orthogonal walls, flanked by a voided square, marked by the onyx wall and two cruciform columns. Here the curved space is open to the landscape and capable of organizing circulation at its perimeter as well as containing space in its center (Fig. 5b).

While Mies' Farnsworth House (Plano, 1945-51) is a variation on the temple type, its near twin, Philip Johnson's Glass House (New Canaan, 1948) (Fig. 5d) takes the Villa Rotonda as its point of departure. Johnson simplifies the volume so that additive porches are entirely missing and instead subsumed to the interior of the glass box. The four porches of the Villa Rotonda are alluded to by subtle inflections of space towards the cardinal directions; the hierarchy of the rotunda is likewise subverted, pushed to the side and used to house the bathroom.



Fig. 5: Elaborations of the Villa Rotonda's four porches and rotunda: a. Mies van der Rohe, Tugendhat House (1929), entry level; b. Tugendhat House, main floor; c. Andrea Palladio, Villa Rotonda; d. Philip Johnson, Glass House (1948).

*

Architects in the late twentieth and early twenty-first century face a different challenge. Although Postmodern architects were eager to recover the lessons of history, most were trained in the Modernist tradition. Hence, they had the triple challenge of reclaiming a lapsed architectural heritage, coming to terms with the legacy of Modernism, and acknowledging the new vernacular of popular consumer culture. I use the term “Postmodern” here broadly to describe architects who confront history in a skeptical, ironic, contingent, self-referential, and non-totalizing way, as distinct from the optimistic, progressive, teleologically directed project of Modernism. As a mark of ironic distance from previous traditions, Postmodernism often elaborates images of low or popular culture, like signage, advertising, or kitsch instead of high-culture paradigms, like temples or ideal villas. Furthermore Postmodernism is intensely self-referential, rife with internal jokes, rather than aimed at universal themes.

Robert Venturi's Vanna Venturi House (Philadelphia, 1960) (Fig. 6d) synthesizes multiple sources, both high and low. In the most banal sense, it can be seen as a reformulation of the Monopoly house – it's even green – yet it's flat, like a child's drawing of a house, or a billboard, or a cowboy town false façade (Fig. 6b-c). In *Complexity and Contradiction* (1964) Venturi makes dense references to

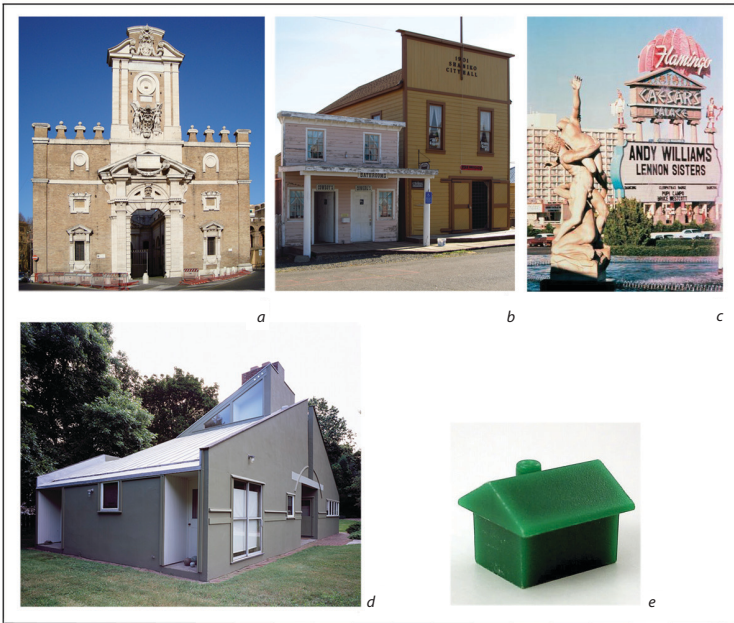


Fig. 6: Vanna Venturi House (1962) and possible sources. a. Michelangelo, Porta Pia, Rome (1565); b. Western false façade; c. Las Vegas billboards; d. Vanna Venturi House; e. Monopoly house.

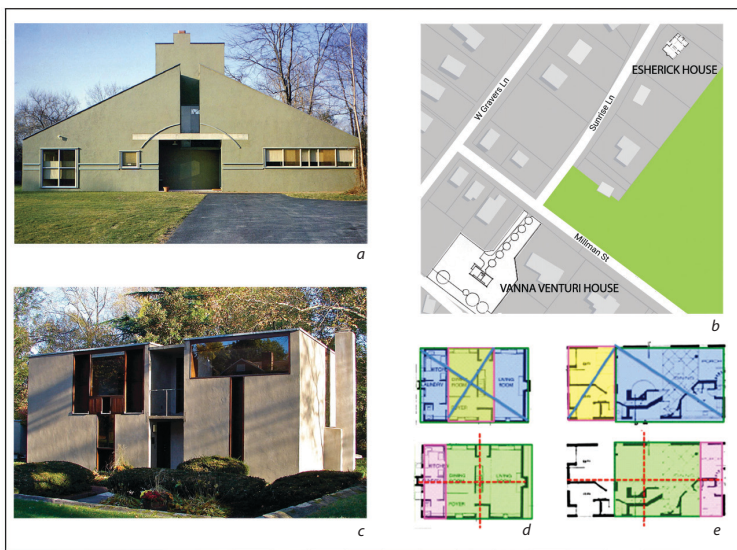


Fig. 7: a. Robert Venturi, Vanna Venturi House, street elevation; b. Site plan, Vanna Venturi & Escherick Houses; c. Louis Kahn, Escherick House, street elevation; d-e. Proportions in the Escherick House compared with proportions in the Vanna Venturi House.

historical buildings and it is clear that he is looking at more than billboards; he is engaging the whole sweep of history, with all its complexity. One precedent that Venturi explicitly engages is the contradictory syntax of Michelangelo's Porta Pia (Rome, 1565) (Fig. 6a); another might be the house down the street, Louis Kahn's Escherick House (1959) (Fig. 7). The two houses are close together in time and also close together in the neighborhood, Chestnut Hill, only a few hundred feet apart. However, the practices and the ethos of the two architects could not be farther apart. In his own way, Kahn was part of the progressive Modernist tradition, while Venturi helped to overthrow Modernism and instantiate a critical repositioning of art and architecture in the culture of Postmodernism.

The biographies of Kahn and Venturi offer clues to the different trajectories of their careers. As a young man, Kahn trained under Beaux-Arts architect Paul Philippe Cret and worked for, and then with, George Howe and William Lescaze, architects of the PSFS Building (Philadelphia, 1932), the first International Style skyscraper in the United States. One of Kahn's first major works was the Yale Art Museum (New Haven, 1951), which elegantly exemplified tenets of International Style Modernism. Yet Kahn's distinctive personal style in the 1960s and 1970s emerged only after his confrontation with history during his time at the American Academy in Rome in 1950. After visiting the ruins of Italy, Greece, and Egypt, Kahn turned away from the clean, dematerialized, prisms of the International Style to embrace material, volume, light, geometry, tactility, and the plasticity of the wall.

Venturi was a generation removed from Kahn. In fact Kahn was Venturi's mentor: Venturi worked for Kahn and served as his teaching assistant at the University of Pennsylvania. Such an extremely close, almost paternalistic, relationship goes beyond the question of Venturi's use of Kahn's work as a precedent. Instead, it touches on the condition of "influence," described by Harold Bloom in *The Anxiety of Influence* (1973).¹² Discussing poetry, Bloom develops a critique that applies equally well to architectural design. Bloom maintains that poetry does not emerge in a vacuum, nor even from original insights. Rather, he insists that poetry is self-reflexive: old poetry begets new poetry. "Influence," for Bloom, entails both a young poet's appreciation of his master's skills, but also his struggle to free himself from indebtedness, in order to establish his own identity. The young poet must "clear imaginative space"¹³ in order to create, but strong creation can only take place within a discursive field established in the discipline. Bloom identifies strategies to escape influence, primary among them *clinamen*, or "poetic misreading or misprision proper,"¹⁴ that is, a deliberate "swerve"¹⁵ away from the precursor. Other strategies are *tessera*, "completion and antithesis;"¹⁶ *kenosis*, "a breaking device similar to the defense mechanisms our psyches employ against repetition compulsions... a movement toward discontinuity with the precursor;"¹⁷ *daemonization*, "a personal Counter-Sublime, in reaction to the precursor's Sublime;"¹⁸ *askesis*, "self-purgation;"¹⁹ and *apophrades*, "the return of the dead."²⁰ Bloom maintains that only "strong poets" can escape influence. Lesser poets are

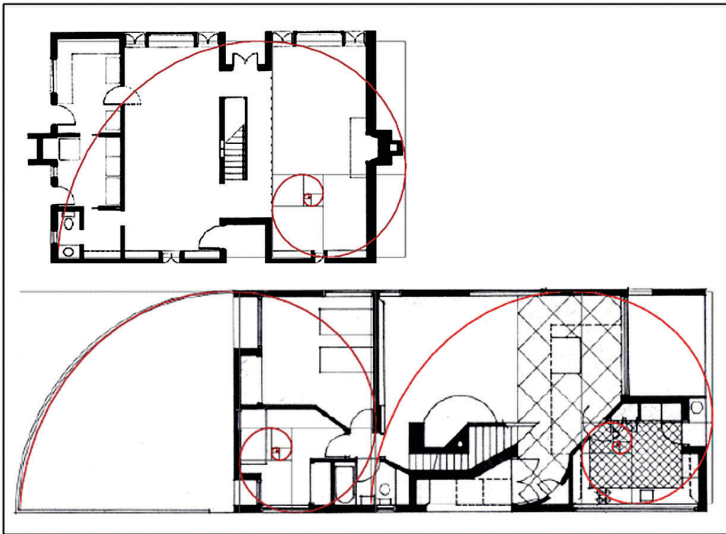


Fig. 8: The golden rectangle in the Escherick House (top) and the Vanna Venturi House (bottom).

doomed forever to be derivative and never find their own voice; they will only be able to reproduce superficial aspects of the master's works, but not the substance, nor will they be able to produce something strong and new. Venturi makes use of literary criticism in *Complexity and Contradiction*, specifically William Empson's *Seven Types of Ambiguity* (1930), which inspired Venturi's concept of the "difficult whole." Yet Bloom's text goes further, discussing not simply qualities of artistic works, but also the state of mind of the artist and the necessity of a struggle with history.

A comparison of Kahn's Escherick House with Venturi's Mother's House shows how the struggle over influence manifests itself (Figs. 7-8). The simple cubic massing of concrete volumes in the Escherick House demonstrates Kahn's synthesis of simple International Style volumes with the materiality and muscularity of classical examples. The street elevation is split apart by a void, with one side punched by a square-ish window and the other cut by a ribbon window. In designing his Mother's House, Venturi deliberately "misreads" the Escherick House, quoting the former's central split and flanking square and ribbon windows (Fig. 7a). Venturi then transforms Kahn's cubic volume into a flat sign, or perhaps even a perspective drawing of a cube, if Venturi's gable roof could be construed as a two-point perspective, with gables misread as lines converging towards vanishing points. In the Escherick House, the chimney is an autonomous element, pulled away from the block of the house to play sculpturally against blank, flat walls. In his Mother's House, Venturi references the singularity of the Escherick House chimney, but embeds its disruptive mass within the volume of the building, using it as a re-

centering device in a complex network of relationships. Kahn was obsessed with geometry and Venturi really was not, but Venturi relentlessly and ironically quotes and recombines the proportions of the Esherick House (Fig. 8). Venturi also engages in what Bloom calls *tessera*, “completion and antithesis.” Kahn’s materially rich, formally pure, minimalist box is transformed by Venturi into pure image, and a *kitsch* image at that. The density of self-reference does not drain meaning from the project, but rather makes it richer. Venturi states:

Architects can no longer afford to be intimidated by the puritanically moral language of orthodox Modern architecture. I like elements which are hybrid rather than ‘pure,’ compromising rather than ‘clear,’ distorted rather than ‘straightforward’ ... I am for messy vitality over obvious unity. I include the non sequitur and proclaim duality.²¹

*

Architects practicing today, especially Jacques Herzog and Pierre de Meuron, operate in a more densely layered historical field, confronting the legacies of traditional architecture, Modernism, and Postmodernism. They also confront the problem of influence. Herzog and de Meuron were students under Aldo Rossi at the ETH in Zurich. Rossi’s critique of Modernism stressed the importance of memory, place and culture, which Rossi believed had been forfeited by Modernism in favor of internationalism and universalization. Resisting architecture as a mechanical or technological act, Rossi focused on typology and used drawing as a tool to formulate his ideas, making bold, primitive, brightly colored sketches in an effort to reclaim core meanings of architecture and recapture qualities that are now only present in dreams. In addition to coming to terms with the legacy of their teacher, as Swiss architects, Herzog and de Meuron must confront the influence of the greatest of all Swiss architects, Le Corbusier.

Herzog and de Meuron’s early work applies Bloom’s strategies of *tessera*, (completion and antithesis) and *kenosis*, (discontinuity with the precursor) to escape Rossi’s influence. The stark massing at the Goetz Collection (Munich, 1992) is stripped down, bare, and minimal (Fig. 9a). It rejects Rossi’s preoccupation with archetypal forms and historically embedded types (Fig. 9b), and its box-like simplicity serves as a revindication of the International Style. Like Mies’ Crown Hall (Chicago, 1956) (Fig. 9c), it is a rectilinear prism, articulated by an even bay system and terse tripartite organization of base, middle and top. However, while Crown Hall partakes in progressive Modernism’s quest for honesty and transparency, the Goetz Collection is aimed at dissimulation and opacity: a solid mass is presented, floating between two plenums of glass. Paradoxically the building has no façade, in a Beaux-Arts sense, and yet it wears a mask.



Fig. 9: Early Herzog & de Meuron buildings and influences. a. Herzog & de Meuron, Goetz Collection (Munich, 1992); b. Aldo Rossi, Teatrino del Mondo (Venice, 1982); c. Mies van der Rohe, Crown Hall (Chicago, 1956); d. Herzog & de Meuron, Technical School Library (Eberswalde, 1999).

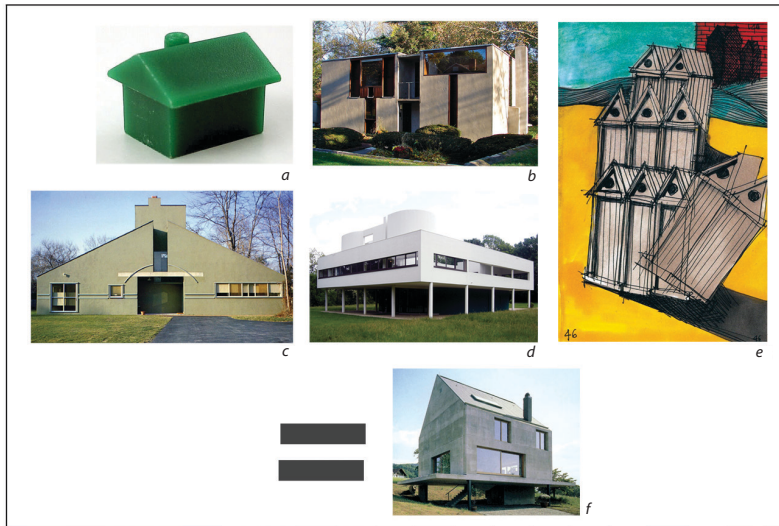


Fig. 10: Some sources for Herzog & de Meuron's Maison Rudin (Leymen, 1997): a. Monopoly House; b. Kahn's heroic concrete architecture; c. Venturi's house as a sign; d. Le Corbusier's Villa Savoye; e. Rossi's typology and oneiric imagery; f. Maison Rudin.



Fig. 11: After Le Corbusier; free plan vs. bearing wall, in *Five Points of a New Architecture* (1926).

Herzog and de Meuron's Technical School Library (Eberswalde, 1997-1999) (Fig. 9d) presents another "difficult whole" and multivalent synthesis of varied sources. Its prismatic massing allies it with the Miesian tradition, but it is covered with something distinctly un-Miesian: a dense field of ornament, albeit ornament that has been flattened, denatured, and reduced to surface inscription. At Eberswalde, Herzog and de Meuron collaborated with an artist, Thomas Ruff, who culled images from magazines and arranged them as horizontal bands, imprinted on glass and concrete alike. The banding and different densities of figuration suggest rustication and forge an improbable equation between the lightness of glass and the heaviness of concrete. Techniques of seriality and mechanical reproduction (adapted from artists like Andy Warhol) erase specificity and transform the status of the image to that of advertising. The classical or Beaux-Arts idea of wall as a heavy, articulated, ornamented surface is synthesized with the dematerialized abstraction of the Modernist box. Moreover, Herzog and de Meuron are Swiss, and the use of a patterned facade is a Rossian reclamation of the vernacular – in this case the Swiss vernacular of the painted façade, seen in Le Corbusier's Villa Fallet (Fig. 3).

Herzog and de Meuron's Maison Rudin (Leymen, 1998) (Fig. 10f) comes even closer to Rossi's imagery and formal repertoire, but in an ironic, unsettling way. Rossi's death in 1997 may have pushed them to reconsider his legacy, or they may be exploring another of Bloom's strategies: *apophrades*, or "the return of the dead." Bloom explains *apophrades* in the following way:

The later poet, in his own final phase, already burdened by an imaginative solitude that is almost a solipsism, holds his own poem so open again to the precursor's work that at first we might believe the wheel has come full circle, that we are back at the later poet's flooded apprenticeship, before his strength began it assert itself in revisionary ratios. But the poem is now *held* open to the precursor, where once it was open...²²

The cloying figurality of the Maison Rudin is both archetypal and cartoony, yet at the same time abstract, materially rich, and volumetrically pure. It seems to be a synthesis of Kahn's Esherick House with Venturi's Mother's House, or perhaps the simultaneous presence of both halves of Le Corbusier's diagram of free plan

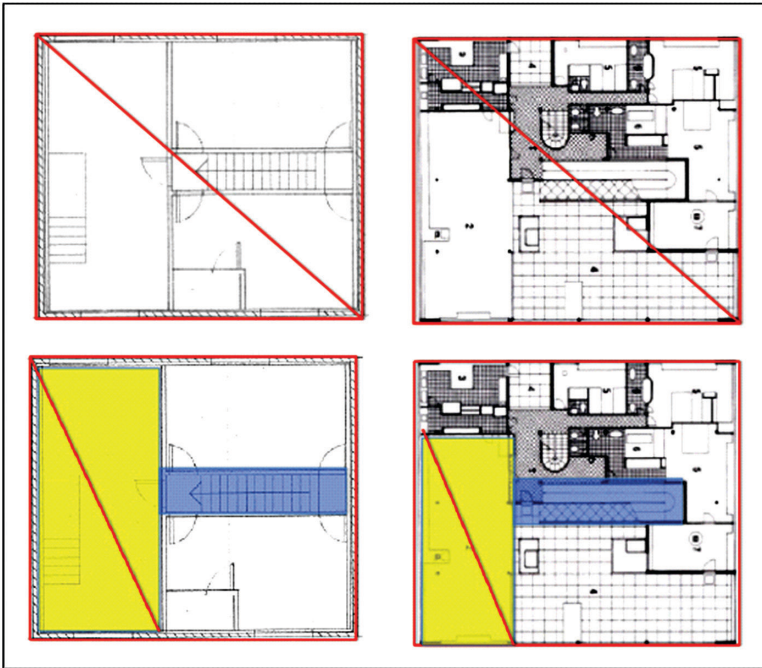


Fig. 12: Herzog & de Meuron's Maison Rudin (left) and Le Corbusier's Villa Savoye (right).

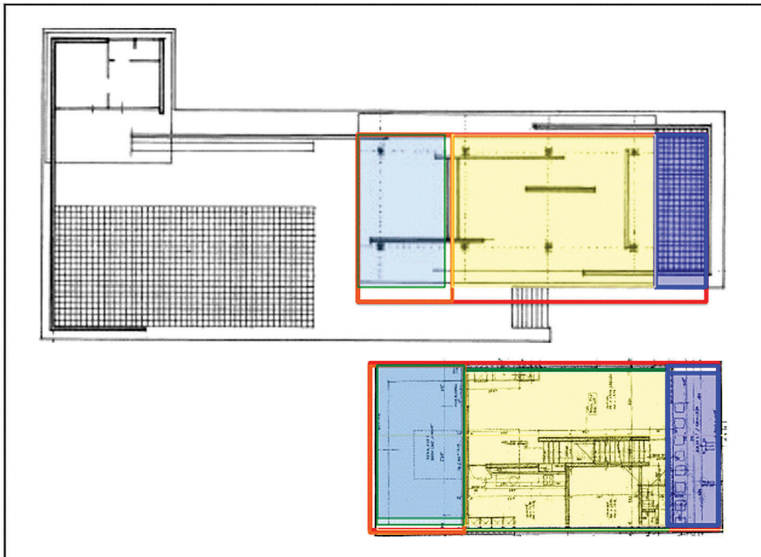


Fig. 13: Terrace level of the Maison Rudin (below), compared with the Barcelona Pavilion (above).



Fig. 14: Herzog & de Meuron, Schaulager (Basel, 2004): a. Entry façade and courtyard; b. Le Corbusier, Villa Savoye; c. Schaulager, art storage warehouse; d. Schaulager, guardhouse; e. Schaulager, plan.

versus bearing wall from *Five Points of Architecture* (1926) (Fig. 11). Like the Villa Schwob, the Maison Rudin is deliberately awkward and ugly, provoking a reading.

The use of *piloti* in the Maison Rudin signals that the architects are confronting Le Corbusier, and a comparison with the Villa Savoye shows that both plans involve identical rectangular footprints, and both are bifurcated by stairs or ramps (Fig. 12). The fact that the Maison Rudin looks nothing like the Villa Savoye is part of the idea, a joke, a misreading. Moreover, other sources are brought into the mix. An elevated terrace extends beyond the house on both sides. On the western part, there is a reflecting pool, crammed onto the edge. The incongruous siting of the pool only makes sense when you realize that the terrace plan quotes the plan geometry of the Barcelona Pavilion (Fig. 13), and in this context, the placement and proportions of the pool are a perfect match. Citations of Modernist paradigms and Russian imagery are so dense and so specific that the house stands as an essay in the synthetic refashioning of Modernist precedent, a theme deployed consistently in their work.

Herzog and de Meuron's Schaulager (Basel, 2003) (Fig. 14) addresses themes of imitation and influence in even more complex ways. It is a hybrid “dumb box” or “decorated shed,” to use Venturi's terms. The entry façade and courtyard are in extreme juxtaposition to the unadorned box at the rear. The words “*Schau*” and “*Lager*” literally mean “look” and “warehouse,” and the program of the Schaulager is exactly that: a warehouse to store contemporary art, as well as space for special



Fig. 15: a. Schaulager, window detail; b. Schaulager courtyard façade material; c. Joseph Beuys, *Homogeneous Infiltration for Piano* (1966); d. Joseph Beuys, *Fat Chair* (1963).

exhibitions. The doubleness of the program triggers the building's double expression. The third element is the small, Russian pavilion, the guardhouse, situated in the entry courtyard, like an actor on stage (Fig. 14d).

Material and color are used strategically in the Schaulager to convey the meaning of different programs. The storage box at the rear is covered in a dark, rough, gravelly crust, which looks almost like a mud. The architects state that the heavy material was selected to increase thermal mass, and thereby aid in climate control.²³ However, the clumsy, mud-smeared box gives the impression of a primitive hut, haptic, severe, and more primitive than the skeletal hut of Abbé Laugier's *Essay on Architecture* (1753). By contrast, the entry courtyard, carved into the warehouse box, is a voided trapezoidal proscenium. In its whiteness and lightness, the entry courtyard suggests the white box of Modernism, turned inside out and reconstructed as a cone of vision, to better claim opticality as its mode of engaging art. The closed, rough guardhouse makes an opposing claim, demonstrating the power of volume, tactility, figurality, materiality, and obdurate haptic presence.

Like Mies, Le Corbusier and Venturi, Herzog and de Meuron enrich their

synthesis of architectural traditions by incorporating developments from the world of art. Indeed, they do this more relentlessly than probably any other architects practicing today. According to Kurt Forster, “Herzog and de Meuron have demonstrated an almost osmotic capacity for absorbing and transforming ideas they encounter in a work of art.”²⁴ Of particular influence on Herzog and de Meuron is the work of the artist Joseph Beuys. Herzog claimed that Beuys “made us aware of the invisible qualities of materials.”²⁵ The strangeness of the gravelly crust on the Schaulager warehouse can be understood in such a Beuysian context (Fig. 15-a-b). Its crudeness and lack of articulation seem distinctly non-architectural, more like the earth itself than an artifact of culture. Yet the windows of the warehouse are thin Corbusian ribbon windows, peaking out from irregular edges, and hinting that something familiar has been covered up and decontextualized. Beuys’s work explores similar territory: ordinary objects are defamiliarized and meaning is shifted when one material is exchanged for another, as in his *Fat Chair* (1963) (Fig. 15d) or when something ordinary is clad in a thick wrapping, as in *Homogeneous Infiltration for Piano* (1966) (Fig. 15c), wherein a piano is draped and disguised by a heavy felt covering, ambiguously marked by a red cross. Material is a bearer of meaning at Schaulager, as in the work of Beuys. Even the white walls of the courtyard are transformed, their surface topography contaminated to mimic the bumpy, irregular, tactile properties of the warehouse box at the rear. Such reformulation of material and investiture of surface with meaning is rarely seen in architecture but occurs frequently in art, especially in the work of German artists who resisted the formalist project of art in favor textures, strange materials, weavings, collage, and the polyvalence of the *informe*.²⁶

*

We live in an age when algorithms can generate forms that could not have been drawn or even imagined in earlier times. What is the role of architectural history, in view of the rapacious capacity of digital media to produce novel forms? Does the study of history still have a value for architects and students of architecture, or is it a curiosity, a dead artifact from a distant age (and in the digital age, even the Schaulager’s date of 2003 suggests a sluggish, eclipsed technology)? Yet new techniques of representation are as old as the history of architecture itself. Orthographic projection, mathematical perspective, anamorphosis, stereometric projection, or even the Modernist quest to represent four-dimensional space, have inevitably brought with them a new way to think about architectural space and form. Throughout that history, the strongest work using new media has developed in critical dialogue with its precursors. Bramante’s *trompe l’oeil* chancel in Santa Maria presso San Satiro (Milan, 1486) gains richness when understood as a response to the tradition of the centralized church plan; the intimations of Cubist space in Le Corbusier’s Villa at Garches gain meaning when understood as a continuation of research into the ideal villa.

Furthermore, questioning the utility of history is nothing new. In *On the Use and Abuse of History for Life* (1874), Friedrich Nietzsche reflected on the value of history:

I despise everything which merely instructs me without increasing or immediately enlivening my activity... we must seriously despise instruction without vitality, knowledge which enervates activity, and history as an expensive surplus of knowledge... To be sure, we need history. But we need it in a different manner ... we need it for life and for action, not for a comfortable turning away from life and from action... We wish to serve history only insofar as it serves living.²⁷

In *The Archaeology of Knowledge* (1969), Michel Foucault uses the example of a book to illustrate how history “serves the living.” Each book, each text, prepares a field against which the interconnectivity of knowledge can be understood:

The frontiers of a book are never clear-cut: beyond the title, the first lines, and the last full stop, beyond its internal configuration and its autonomous form, it is caught up in a system of references to other books, other texts, other sentences: it is a node within a network... it indicates itself, constructs itself, only on the basis of a complex field of discourse.²⁸

Likewise in architecture, meaning is constructed from a web of intertextual connections. A design is not comprised of discrete lines and volumes, but each design is caught up in references to other drawings, projects, motifs, plans, and a larger network images and ideas in history.

In a lecture given in 2014, Peter Eisenman questioned the value of history in architecture and declared: “Originality is king!” He then completed his sentence, stating: “Originality is king, in the land of the uninformed.”²⁹ He explained that to the uninformed, everything is original, everything seems new, and novelty seems interesting, because the uninformed do not know enough to understand the richness and complexity of ideas that grow discursively from a tradition. At the same lecture, Jeffrey Kipnis responded by elaborating on the idea of originality, stating:

Original work doesn't mean your work is unlike the work of anyone else; it means that your work is a starting point, an origin, for the work of others. The best way to do truly original, important work, is to work on something someone else has begun and make it something new.³⁰

Both Kipnis and Eisenman were echoing Bloom's insight, that strong creation can only take place within a field of relationships established in the discipline, or Foucault's contention that all cultural artifacts are nodes within a network of meanings and relationships. T.S. Eliot, made the strongest defense of history in his essay *Tradition and the Individual Talent* (1919):

No poet, no artist of any art, has his complete meaning alone. His significance, his appreciation is the appreciation of his relation to the dead poets and artists. You cannot value him alone; you must set him, for contrast and comparison, among the dead.³¹

Eliot concluded with his well-known epigram:

Immature poets imitate; mature poets steal; bad poets deface what they take, and good poets make it into something better, or at least something different.

Notes

1. J.J. Winckelmann, *Gedanken über die Nachahmung der griechischen Werke in der Malerei und Bildhauerkunst* (1755), discussed by Rudolf Wittkower in his essay "Imitation, Eclecticism, and Genius," in *Aspects of the Eighteenth Century*, ed. Earl R. Wasserman. Baltimore, MD: John Hopkins University Press, 1965, 145.
2. "Der einzige Weg für uns, groß, ja, wenn es möglich ist, unnachahmlich zu werden, ist die Nachahmung der Alten..." Johann Joachim Winckelmann, *Gedanken über die Nachahmung der griechischen Werke in der Malerei und Bildhauerkunst*. 2. vermehrte Auflage. Dresden und Leipzig: Waltherische Handlung, 1756, 2. Cited in Wittkower, *ibid.*, 145.
3. James L. Larson in "Winckelmann's Essay on Imitation," *American Society for Eighteenth Century Studies*, Vol. 9, No. 3, Spring, 1976, 393.
4. For a discussion of Hegel's claim to and disavowal of the "dialectic," see Michael Allen Fox, *The Accessible Hegel*. Amherst, MA: Prometheus Books, 2005, 43. Also see Hegel's preface to *The Phenomenology of Spirit*. Transl. A.V. Miller. Oxford: Clarendon Press, 1977, secs. 50, 51, 29-30.
5. Roger Scruton, *The Aesthetics of Architecture*. London: Methuen, 1979, 52-58. Scruton's contention that Hegel's metaphysics would carry through five generations of students is critically discussed by David Novitz in "Architectural Brilliance and the Constraints of Time," in *Philosophy and Architecture*, ed. Michael Mitias, Amsterdam: Rodopi, 1994, 69.
6. See, for example, Panayotis Tournikiotis, *The Historiography of Modern Architecture*. Cambridge MA: MIT Press, 2012, 242. Tournikiotis catalogs the trope of the tabula rasa in many major histories of modern architecture.
7. For a full discussion of the mathematics of the Parthenon, see Audrey M. Van Mersbergen, "Rhetorical Prototypes in Architecture: Measuring the Acropolis with a Philosophical Polemic," in *Communication Quarterly*, Vol. 46 No. 2, 1998, 194-213.
8. Franz Schulze & Edward Windhorst, *Mies van der Rohe: A Critical Biography*, New and Revised Edition, Chicago, IL: University of Chicago Press, 340-341.
9. Peter Murphy and David Roberts, *Dialectic of Romanticism*. London: Bloomsbury Academic, 2005, 138.
10. Architectuur, "Barcelona Pavilion:" <http://architectuur.com/architecture/barcelona-pavilion> (accessed 10.10.2016).
11. Colin Rowe, *The Mathematics of the Ideal Villa and Other Essays*. Cambridge: MIT Press, 1982.
12. Harold Bloom, *The Anxiety of Influence*. Oxford: Oxford University Press, 1973, 5-15. In a longer essay, one could investigate how Kahn grappled with the influence of his masters, William Howe and Paul Philippe Cret.
13. *ibid.*, 5.
14. *ibid.* 7.

15. Ibid. 14.
16. Ibid.
17. Ibid.
18. Ibid. 15.
19. Ibid.
20. Ibid.
21. Robert Venturi, *Complexity and Contradiction in Architecture*, 2nd edition. New York: The Museum of Modern Art, 2002, 14.
22. Bloom, *The Anxiety of Influence*, 15.
23. Herzog & de Meuron: <http://www.herzogdemeuron.com/index/projects/complete-works/151-175/169-schaulager.html> (accessed 10.10.2016).
24. Kurt Forster, "A Piece for Four of More Hands," in *Herzog & de Meuron: Natural History*, ed. Philip Ursprung. Montreal: CCA, 2003, 45.
25. Ibid., 219.
26. For a complete discussion of the Informe (or "Formless") as a critique of the Formalist tradition in contemporary century art, see Yves-Alain Bois and Rosalind Krauss, *Formless: A User's Guide*. New York: Zone Books, 1997.
27. Friedrich Nietzsche, *On the Use and Abuse of History for Life*. Transl. Ian Johnston, Vancouver Island University, Nanaimo, revised edition, 2010: <http://johnstoniatexts.x10host.com/nietzsche/historyhtml.html> (accessed 10.10.2016).
28. Michel Foucault, *The Archaeology of Knowledge*, Chapter 1, "Unities of Discourse." Transl. A. M. Sheridan Smith. New York: Pantheon, 1972, 23.
29. Peter Eisenman, lecture at the Knowlton School of Architecture, Ohio State University, 16 October, 2014.
30. Jeffrey Kipnis, discussion with Peter Eisenman at the Knowlton School of Architecture, Ohio State University, 16 October, 2014.
31. T.S. Eliot, "Tradition and the Individual Talent," *The Sacred Wood*, New York: Alfred A. Knopf, 1921. Reprinted in Bartleby: <http://www.bartleby.com/200/sw4.html> (accessed 10.10.2016).

THE AXIS OF THE MOSQUE: ADVANCING AND HALTING IN ISLAM

Eymen Homsî

An extant text describes how the garrison mosque in Kufa, Iraq, was laid out in 638 CE, one of the earliest mosques to be built along the expanding frontier of the new Islamic state.¹ The account describes how the compound's all-important *qibla* axis, the axis of alignment with Mecca, was established by aiming an arrow towards Mecca and connecting, with a line in the sand, the landing point of the arrow and the position of the archer. The landing point also determined the front edge of the compound, while three more arrows to the other three directions likewise demarcated its back and side edges. This resulted in a square compound measuring approximately 100 meters on edge (Fig. 1). The account points indirectly at a spatial contradiction that is the topic of this paper: whereas the first arrow forcefully asserts the forward advance of space, the next three arrows, equally strongly, fix the archer firmly at the center of an immobile square (Fig. 2). We see a static square absorbing the forward thrust of a moving vector, thwarting the advance of the axis and rendering it passive and invisible. I will suggest that this intertwining of advancing and halting underpins all of Islamic spatiality, and that its permutations can be traced across a millennium of mosque architecture. I will propose that this amalgam of axis and stasis, despite great regional and historical differences, is the defining feature of mosque architecture.

The following presents a broad outline of the advancing and halting mode of space in Islam. I will suggest that such a space is produced by *sālât*, the canonical ritual of Islamic worship, whose form and character are highly spatial. The ritual's gestural sequence simultaneously expands and contracts space, alternating between the near and the far, the bodily and the universal. I will posit four intertwining scales at which this spatiality operates: bodily, congregational, territorial, and global. I will conclude with the Sulyemaniye mosque in Istanbul as one example among many of the ways in which these four scales of advancing and halting are made to operate in tandem. An analysis of mosques such as I offer here, in which spatiality is derived from the gestural sequence of ritual worship and the mosque is seen as the theatre for its performance, could provide a template for an overall concept of 'Islamic space'. Further analysis would require crossing back and forth between a phenomenological understanding of the ritualistic body and a discursive understanding of the ritualistic axis.²

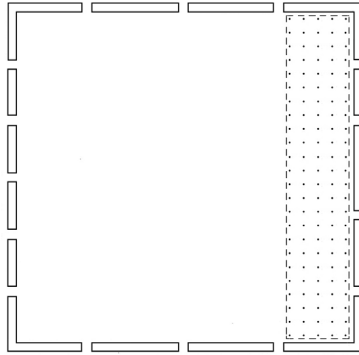


Fig. 1: Kufa, Great Mosque, plan of 638 CE.

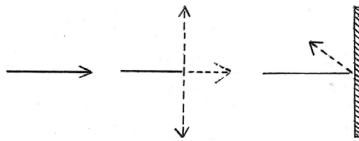


Fig. 2: Qibla axis, horizon, cross-axis.

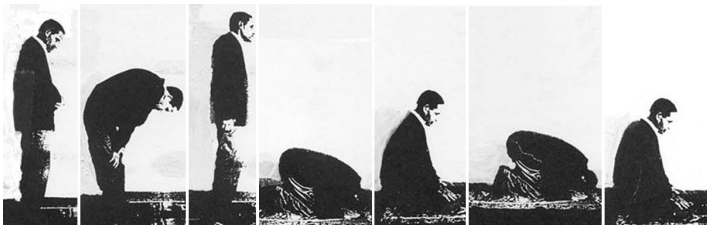


Fig. 3: Basic postures of worship.

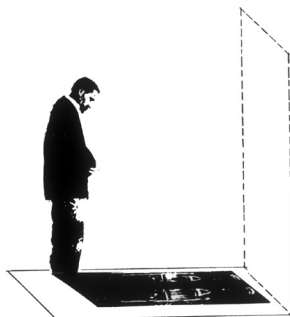


Fig. 4: Sutra.

Bodily scale

The *qibla* is the point on the horizon that lines up with the Kaaba, the mysterious cube at the center of Mecca. Its axis, the *qibla* axis, is the sanctified line that connects the worshiper to the Kaaba. It is the main organizing device of ritual space in Islam, and, as such, it has far-reaching social, political, religious and spatial consequences. But these large effects begin at the scale of the body. Worshipers activate the *qibla* axis five times a day during their performance of *sālāt*.³ The gestural sequence gradually compresses the aligned body via a combination of standing (*qiyam*), bowing (*rukūu*), prostrating (*sujuud*), and sitting (*julus*). The eyes are made to close, the forehead is made to touch the ground, and the body is made to assume a fetal position, sometimes called a ‘small death’ (Fig. 3). Alignment, the first posture, establishes the axis but prostration, the climactic posture, halts its forward advance. Thus it is that the worshiper oscillates at set intervals of the day between axis and stasis, between advancement and halting, and between the far and near orders of space.

The forward advance of space is halted with bodily prostration. The halting begins very early in the gestural sequence with a mental operation in which the worshiper evokes the *sutra*, an imaginary screen placed two paces ahead.⁴ The cross-axial screen demarcates the front edge of a personally sanctified space of worship. Its purpose is to shield the worshiper from the distractions of profane objects and creatures that may cross and sever the *qibla* axis during worship (Fig. 4). “When any of you prays toward a *sutra*, let him get close to it and not allow Satan to sever his prayer,” says the *hadith*, a saying of the Prophet.⁵ But the *sutra* accomplishes more than its stated purpose: it performs the remarkable feat of blocking visible space in front of the worshiper. In effect it *erases* the space between the worshiper and the Kaaba, a removal of space that confines the worshiper within the narrow boundary of a prayer rug, not unlike the confinement of the Kufa archer within a static square.⁶

In many ways the *sutra* is the obverse side of the *qibla*: it interiorizes the ritual experience, fixes the body in place, and resists the pull of the center. The etymologies of *sutra* and *qibla* attest to this difference: the Arabic root-word for *sutra* signifies containment (‘hidden’, ‘covered’, ‘shielded’), whereas *qibla* signifies forward movement (‘toward’, ‘in front of’, ‘before’). And yet the *sutra* and *qibla* operate in tandem, structuring the near and far by alternately compressing space down and expanding it out, alternately advancing and halting its advance.

Congregational scale

The *sutra-qibla* pair’s most consequential contribution in the push-pull between advancing and halting is to act as the precursor to the mosque’s Mecca-facing, cross-axial *qibla* wall. The wall acts as a collective *sutra* for the male members of the community, who face it while standing side-by-side in long rows, a way of

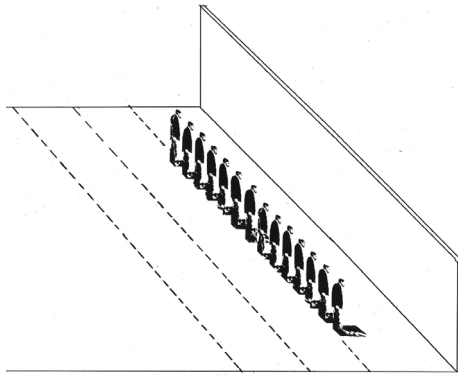


Fig. 5: Qibla wall.

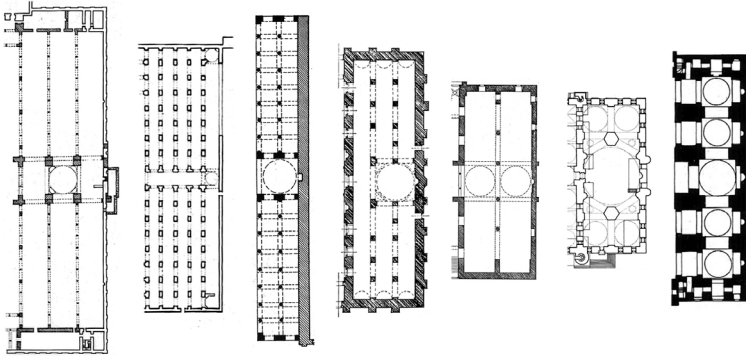


Fig. 6: Hypostyle mosques 7th-15th Centuries.

standing that is said to reflect the spatial sensibilities of earlier desert nomads who were accustomed to wide horizons.⁷ Facing the horizon in a long row is one way of resisting confinement and hierarchy because it equalizes the relationship of the members to each other and to the divinity. But, in an ironic reversal of limitless nomadic space, the introduction of the *qibla* wall (the conflation of individual *sutras* into a physical barrier) codifies a system of limited movement and visual control. The wall's severe planarity abruptly interrupts the advance of the axis and permanently erases the view of the horizon (Fig. 5). What remains of the horizon is its vestigial memory, embodied in the laterally extended worship halls that characterize a millennium of hypostyle-type mosque architecture (Fig. 6).

The *hadith* says: “*Sālāt* in congregation is twenty seven degrees more virtuous than *sālāt* alone”.⁸ Even when the worship ritual is performed in solitude, the certainty that countless others are facing the same *qibla*, performing the same gestures at the same time and in the same synchronized fashion, monumentalizes

the gestures and magnifies their effect. It is possible to see the collective and individual modes of worship as broadly reflective of the dual self-identity of Islam as both a “state” and a “religion” (*al-Islam dīn wa dawla*). The “state” concerns itself with the exoteric (*zāhir*), outer, public and collective aspects of Islam, whereas “religion” concerns itself with the esoteric (*bātin*), inner, personal realm of spiritual striving and attainment.⁹ Islam is unthinkable as a unified entity without this intertwining of its collective and contemplative realms. Whenever worshipers, individually or collectively, align themselves on the spokes of the universal circle centered on Mecca, they help establish a spatially unified, state-dominated, political and religious entity called *Dar al-Islam*, the “domain of Islam” (to differentiate it from *Dar al-harb*, the “domain of war”).¹⁰

Collective (congregational) worship is a socially sanctioned act: visible, public, and male dominated. It generally takes place in established spaces whose formality contrasts with the informality of the spaces of personal or small scale worship. These latter are often ad hoc, temporary spaces that are superimposed for the duration of worship atop the normal, mutable spaces of the everyday. They are superimposed in particular atop domestic space, where the invisible female half of worshipers, and the other excluded or marginalized worshipers, perform their prayers. Small scale worship is closer to a kinesthetic experience of space for being closer to the scale of the body. It can thus be said about collective vs. individual worship that the *qibla* axis flips back and forth between the fixity of institutional space and the mutability of bodily space, and that these dual modes of the *qibla* occupy the divergent endpoints of a very wide spectrum of space in Islam.

The difference between collective and contemplative worship expresses itself formally and functionally as two types of mosques: congregational Friday mosques and daily prayer mosques.¹¹ Their names, *jami*’ (place of gathering) and *masjid* (place of prostration), point to their difference in emphasis. Congregational mosques have a higher degree of formality, political importance and social prestige than their smaller counterparts, befitting their public role as showcases for the synchronized performance of collective worship.¹²

Territorial scale

A worldwide geometric template centered on Mecca is brought about for the duration of each of the five daily worship sessions. A sanctified territory, virtual but tangibly measurable in precise degrees and minutes, is superimposed atop normal, everyday space. Dispersed locations are reconnected, dormant axes are activated, and all points are rendered potentially Islamic. The ritual redistributes male and female bodies and enforces communal values. Every type of space, be it symbolic, mythic, natural or bodily, converges with equal ease towards the unmovable Kaaba.

But the *qibla* is more than a measurable point on the horizon, in that it also represents the threshold to an invisible, unfixable realm. It points equally well to

an absence as to a presence: the Kaaba contains nothing, and remains invisible at the center of vision, hidden behind its *kiswa*, a black vestment that absorbs space and prayer. The Kaaba is believed to function merely as a terrestrial relay point for prayers ascending up a stack of seven increasingly resplendent celestial cubes.¹³ Mythic and prophetic links to Adam, Abraham, and the archangel Gabriel enhance its transcendental dimension. The mystic *Ibn-Arabi* (d.1240) characterized the Kaaba as “unfixable”, “ungraspable” and “escaping like time”.¹⁴ Its centrality is indeterminate because it is both of this world and otherworldly, located as it is at the intersection of the terrestrial axes of worship and the celestial axis-mundi. It appears terrestrial, almost available, potentially intimate, but is always receding with the receding horizon. This paradox of remote intimacy, of vision and understanding touching at a great distance but without attainment, describes well the ceaseless but futile advance of the axis. A well-known *hadith* likens the *qibla* not to a fixed point on the horizon but to the horizon itself: “To God belongs the east and the west, and wherever you turn, there is the Face of God.”

This tension between fixed and dispersed space, this strain of *unfixety* in Islam, is likely related to the nomadic memory of perpetual displacement. The *Muallaqat*, the odes of pre-Islamic Arabia, hung on the pagan Kaaba’s walls, testify to this ancient sense of displacement: each of the seven surviving odes formulaically begins with the nomadic poet halting at a long-abandoned ruin to lament the impermanence of place and the transience of love.¹⁵

As a fixable point on the horizon, the *qibla* is static and reductive. The horizon, by contrast, is the universal metaphor for mobility and freedom, the unimpeded space of nomads and of the imagination. Their encounter is the encounter of the centralizing point and the dispersive line. The point divides the line and delimits its extension. Similarly, but in more tangible ways, one can say that the fixed axis of collective religion intersects the dispersive horizon of everyday life, and in doing so delimits its mutable, ever-changing space. “Therefore stand firm in the *straight path* (*al-sirat al-mustaqim*) as thou art commanded, thou and those who with thee turn unto Allah; and transgress not from the Path: for He seeth well all that ye do.”¹⁶ This *Koranic* edict implicitly pairs the “*straight path*” of Islam with the well-organized space of collective worship. The fixed *qibla* axis directs the collective body towards the single and privileged God, and away from the multiple trajectories of his animistic partners and competitors (e.g. the moon deity *Hubal*, or Allah’s three daughters *al-‘Uzza*, *al-Lat*, and *Manah*).

Global Scale

A devout Moslem may perform over a half a million acts of prostration towards Mecca in a normal lifetime (Fig. 7).¹⁷ Such a monastic level of practice necessarily reinforces the fixity of the physical center and, by extension, the power that it exerts and the cultural conformity that it demands. Fixed, centralized space had to triumph in order for the organized part of religion to become established.

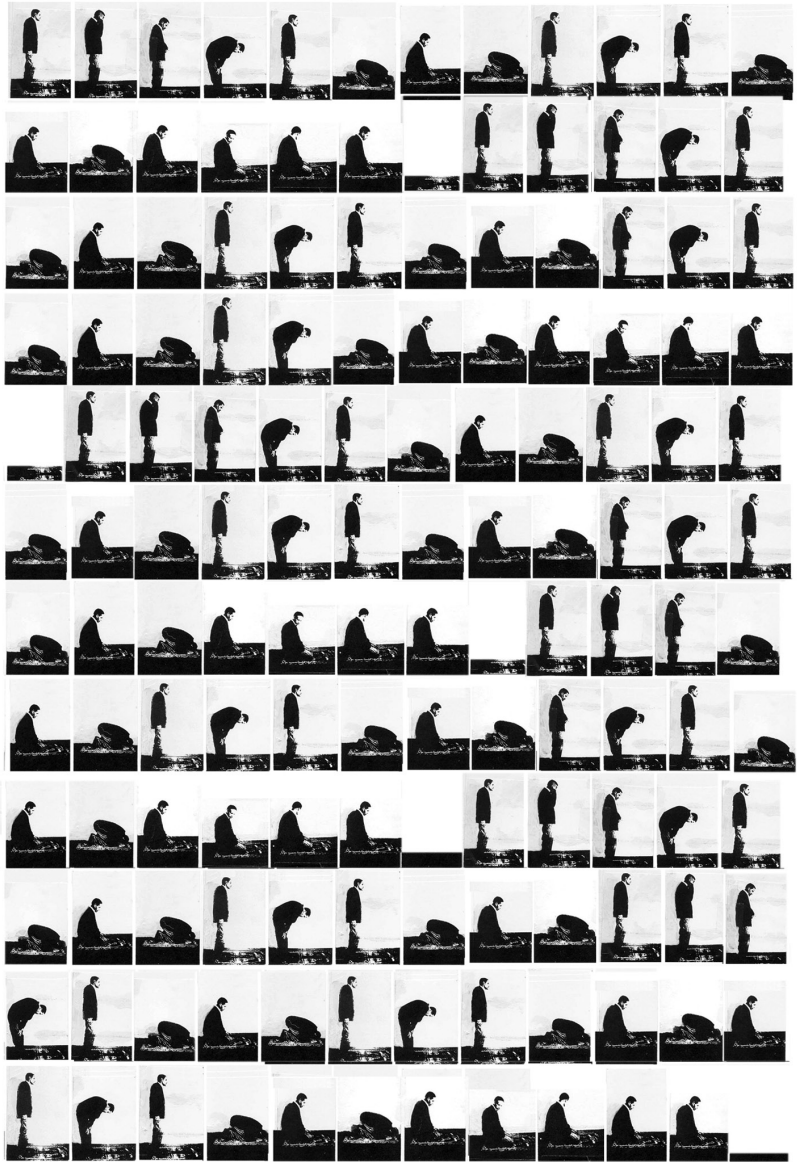


Fig. 7: Five daily sessions of worship.

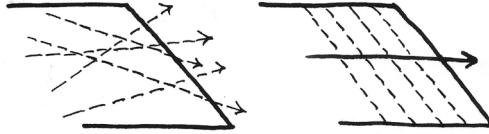


Fig. 8: Nomadic trajectories and the “Straight Path”.

The fixable, measurable *qibla* axis has over time succeeded in superimposing a striating geometry atop the dispersive space of nomads, a superimposition that forms part of the long changeover from nomadic to settled life, from pastoralist to sedentary space, from *badawah* to *hadarah* in the Arabic language of history (Fig 8).¹⁸ Halting, centrality, and monotheism are rooted in the same desire to escape from the threatening void of the desert.

“The phenomenon most difficult for modern history to explain”, writes Mohammed Arkoun, “is the sociocultural process by which collective consciousness shifted from a vision and practice of power appropriate for segmentary societies to a transtribal and transhistorical vision linking all political power to a divine jurisdiction”.¹⁹ Mecca tugs equally on all bodies, pulls them inwards in pilgrimage and down to the ground in prostration. The Kufa garrison is early case in point. It is a portion of perimeter that reinforces that transtribal, global center. Its archer’s exalted first arrow tethers it back to Mecca. The arrow, in fact, is aimed backward to the point of origin, not forward to the dispersive horizon, a boundary making tool, not a metaphor of spiritual striving and attainment.²⁰ A similar matter-of-factness can be said to characterize the duty-bound, inwardly converging *straight paths* of religion.

The task of appropriating the *qibla* in the service of the fixed center has always been as much a political project as it was religious and spiritual. It was a task that fell to the *ulema*, the clerical class of Islam, whose function, from the 8th century onwards, was to maintain religious orthodoxy. Part of this task, performed in the service of states and sovereigns, involved the supervision of the work of measuring the symbolic dimension, as evidenced by the extraordinary interest in early Islam in astronomy and cartography as practical aids in the determination of ritual orientations and calendars.²¹ The invariability of the *sālāt* ritual across time and place is necessarily related to the fixity of ritual space, and the attendant fixity of the religious doctrine that supports it, one which Mohammed Arkoun termed “the official closed corpus” of Islam.²²

The repetitive routines of the ritualistic body and the spaces that they engender get added to the mix of instruments that lend structure to power (e.g. Michel Foucault’s “docile bodies”).²³ It is easy to see how the superimposition of a collective static space atop mutable nomadic space can have important political consequences. The habits of communal alignment, of limiting view, of compressing the body, of appropriating the horizon, and of virtualizing space all serve the

purposes of power. We know that rituals accompany power, and that the control of bodies in space reinforces ideology; such is the case, for example, with the displacement of women to the back of the mosque. Apart from their spiritual and contemplative aspects, which doubtless continue to exist and operate, it is clear that Islamic rituals and spaces reinforce collective, communal and, one can say, conformist identity.

Advancing and halting in the Suleymaniye

The Kufa mosque's account touches on an entire set of components involved in configuring the *qibla* axis, including the ritualistic body (archer-worshiper) that generates it, the martial power that sponsors it, the undifferentiated desert ground plane that receives it, the distant center that organizes it, the ideal geometry that absorbs and frames it. If mosques do share a basic configuration, then how might Kufa's organization, and the components associated with it, so particular to a desert garrison-mosque, reappear centuries later? Affinities across space and time should not be surprising, given that all mosques are theaters for a ritual that has remained virtually unchanged across centuries, regions, sects, and genders. Istanbul's Suleymaniye mosque was completed in 1557, a thousand years after the Kufa mosque. It is more fully an architectural work than the proto-architecture at Kufa (which, in any case, has been much altered over time, so that what remains of the original is only a diagram). The Suleymaniye is radically different from Kufa in its typology, its urban setting, its vastly more ambitious imperial purposes, and its domed Byzantine precedent. And yet the Suleymaniye's organization, I would argue, is animated by the same elemental push-pull between advancing and halting that had animated its nomadic antecedent, and that this sets it apart from the *Hagia Sofia*, its formal prototype and neighbor.

Built at the height of Ottoman power by Sultan Suleyman's architect Sinan, the Suleymaniye complex is organized on a grand scale and prominently sited atop one of Istanbul's seven hills, providing an urban-scale pointer to Mecca when it is seen in profile from across the Golden Horn.²⁴ The profile offers a study in the theme of axis and stasis. The centralizing mass of the great dome firmly anchors the complex to the top of the hill, but the play of minarets counters the impression of stasis: a carefully calibrated balance between the volume of the dome and that of the void between the four minarets makes it appear as if the dome had advanced past its minarets and come to rest at the top of the hill, an effect of forward movement that is further augmented by the greater height of the two forward minarets (Fig. 9).

In plan, however, the thrust of the axis is hesitant and subdued (Fig. 10). The three main components of the sequence (ablution forecourt, domed worship hall, cemetery) appear to drag heavily, the shape of each successive component becoming more idealized and more static, and the entirety appearing to advance past the southern perimeter wall with great difficulty, and only for a very short distance



Fig. 9: The Süleymaniye mosque: profile view.

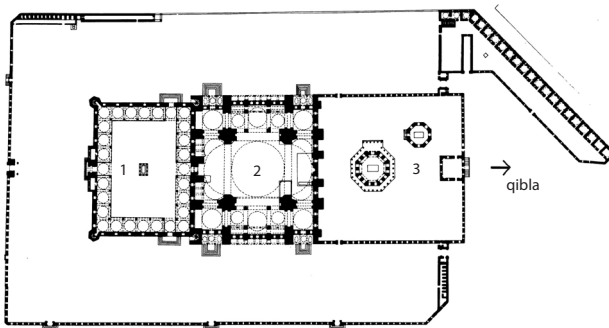


Fig. 10: The Süleymaniye mosque, plan: 1. forecourt, 2. worship hall, 3. cemetery.

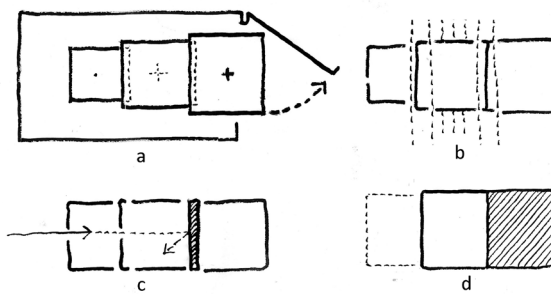


Fig. 11a-d: Analysis of the Süleymaniye mosque.

(Fig. 11a). Moreover, the axis is experienced on the ground as a discontinuity: only two of the three spaces are physically connected (forecourt and worship hall), and even this connection is achieved through a single, exaggeratedly narrow gate. By contrast, there are eight gates along the side elevations, each of which is paired with its opposite on the other side of the space, thus allowing a great degree of lateral movement that reinforces the implicit cross-axial striation of the three spaces (Fig. 11b). Lateral spaces are further made more significant by the greater importance of the side elevations in terms of light, transparency, urban approach, and the functionality of the ablution fountains along the long sides.

Even a cursory comparison with the Hagia Sofia, on which the Suleymaniye is closely modeled, reveals the greater degree of transversal connections in Suleymaniye. The mild axiality of Hagia Sofia, emphasized by the side-isle walls and their columns, is dispensed within the Suleymaniye.²⁵ The square ground plane is more clearly apprehended in the Suleymaniye, augmenting the sense of spatial immobility and stasis, especially from the seated position at the conclusion of prayer, when it is experienced bodily.

The halting in the Suleymaniye's axial advance should be read in the larger context of the movement of worshipers devolving from the city into the worship hall and eventually to the cemetery. Five times each day, the traversing body, arriving from the labyrinth of the city, is brought to a halt in front of the *qibla* wall (Fig. 11c). The trajectory through the three main spaces can be said to represent diminishing degrees of mobility, which can in turn be paired with the diminishing mobility of the three main postures of worship: standing (eyes open, full space), bowing (eyes suspended over the carpet, flat space), and prostrating (fetal position, non-space). The concluding, seated position of the ritual restores full visual space as the eyes sweep from right to left across the entirety of the cross-axial *qibla* wall in the act of salutation to the companion angels seated on the right and left shoulders. Similarly, the heads of the deceased are turned to the right before interment, such that their underground eyes face the *qibla*, in expectation of a promised reconciliation at the end of time, when distance collapses and space flattens.²⁶

The juxtaposition of the living and the dead is a common practice in Ottoman mosques, but the analogy is explicit in the *Suleymaniye*: the worship hall and cemetery mirror each other perfectly in size, shape and alignment. The *qibla* wall does its work of mediating between the advancing axis and the halted body by physically dividing the realms of the living and the dead while at the same symbolically equating them. Worshipers and corpses are similarly aligned in their respective states of immobility, coexisting on either side of the wall in symmetrical gardens, one floral and the other carpeted (Fig. 12). Among the details that play on the theme of advancing-halting is a Kaaba-sized cemetery keeper's cube that terminates the axis at the far end of the cemetery, connecting the mosque back to its distant progenitor. Beyond and below the cemetery keeper's cube is a wrestling courtyard, signaling the restoration of movement and life, while an executioner's

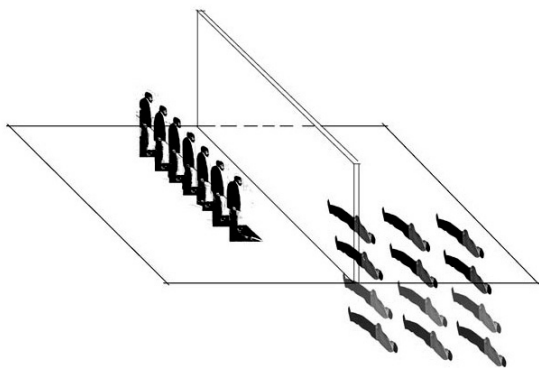


Fig 12: Worship hall and cemetery symmetry.

block (now removed) once stood at the head of the axis, next to the main portal, wryly initiating the theme of advancement and halting.

The collision between the *qibla* axis and the *qibla* wall is registered on the wall's interior surface in the highly symbolic form of the *mihrab*, a niche that centers the wall and marks the direction of the axis. The niche registers both the forward thrust of the axis and its interruption by the cross-axial wall. One can say that the niche conflates axis with stasis: its gate-like form suggests the passage of the axis, whereas its shallow concavity emphasizes the impenetrability of the wall. The inability of the axis to pierce the wall is all the more evident in the contrast between the shallow concavity of the niche and the full and easy penetration of the wall by giant consoles on either side of the niche's perceptual width. Beyond the *mihrab*, on the other side of the wall, lies the field of graves, many of whose headstones mimic the shape of the *mihrab*, and in so doing help complete the symbolic passage from gate to niche to grave, or from movement to stasis.

The *mihrab*'s etymology links it to *hurba*, 'spear' in Arabic, an axial element, but an enigmatic *Koranic* verse inscribed on all Turkish *mihrabs* describes it explicitly as a static element, a chamber or a room.²⁷ This dual association repeats a 7th Century Umayyad coin showing an upright spear inside a niche.²⁸ Another association linking forward motion to stasis can be posited from the curiously identical dimensions of the *mihrab*'s stone frame and the Kaaba's elevation, perhaps implying the collapse of distance and the stasis of attainment.²⁹

The architecture of halting is experienced bodily in the form of spatial stillness and bodily immobility: the carpet absorbs all sounds (no echo), the colored glass filters all light (no shadow), the *qibla* wall interrupts axial space (no movement), and the removal of shoes confers a sense of arrival and domesticity (attainment) to the otherwise monumental space. The square ground plane is apprehended bodily from the seated position at the conclusion of the *sālāt* ritual. Le Corbusier described another of Sinan's mosques (*Yavus Selim* mosque) in terms of arrival followed by stasis: "One enters and sees the immense square covered with golden

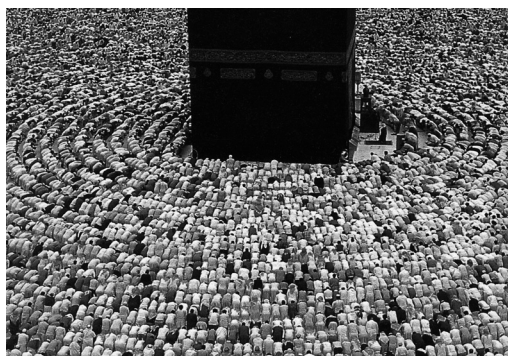


Fig 13: Kaaba, al-Masjid al-Haram, Mecca.

mats of rice straw, always new, and no furnishings or seats but only a few lecterns close to the ground bearing copies of the *Koran* before which one kneels.”³⁰ *Usjud wa’iqtarib* (prostrate and draw near) is a cryptic *Koranic* injunction that aptly summarizes the impossible conjunction of remaining in place while moving forward;³¹ i.e. the space of the mosque as I have tried to describe it.

Pilgrims and migrants

Alignment with the center is what all mosques have in common. A worldwide network of formidable mosques registers the pull of the diminutive Kaaba. All the axes of worship converge in obeisance towards it. The circumambulation of pilgrims reinforces its power. But the center is increasingly unstable today. “The agent of liberation,” writes Edward Said, “has now shifted from the settled, established, and domesticated dynamic of culture to its unhoused, decentered, and exilic energies, energies whose incarnation today is the migrant.”³² The loss of center is captured in the comic dilemma of the first Moslem astronaut, Sheik Muszaphar Shukor of Malaysia, as to which direction he should face while praying towards Mecca in his Soyuz-TMA capsule.³³ We witness the disequilibrium of center and periphery in the superficial architecture of most modern mosques. We witness it most visibly in the recent erection of one of the world’s largest buildings only meters away from the Kaaba, the *Abraj-al Bait* mall and hotel complex. It remains to be seen if Islam survives as a spatial construct its loss of centrality.

Notes

1. Balādhuṛī, *Kitāb Futuh al Buldāni*, Vol. I., trans. F. C. Murgotten. New York: Columbia University Press, 1924, 435: cited in Dominique Clevenot, *Une esthétique du voile: Essai sur l’art arabo-islamic*. Paris: l’Harmattan, 1994, 30.
2. Carrie Noland, *Agency and Embodiment: Performing Gestures/Producing Culture*. Cambridge, MA: Harvard University Press, 2009, Chapter 2.
3. For the form and meaning of *sālāt* in Islam see: Annmarie Schimmel, *Deciphering the Signs of God: A Phenomenological Approach to Islam*. Albany, NY: State University of New York Press, 1994, 172 fn 43, in which she

also notes that the basic works on ritual prayer are Friedrich Heiler, *Das Gebet* (1923); Constance E. Padwick, *Muslim Devotions* (1960); and E.E. Calverley, *Worship in Islam* (1925).

4. Sometimes the sutra's boundary-making capacity is augmented by a stone, a piece of wood, a planted spear, or a line in the sand.

5. Hadith, Sunan an-Nasa'i, *The Book of the Qibla*, 748.

6. For the esoteric meaning of invisibility in Islam see: Toshihiko Izutsu, *Sufism and Taoism. A Comparative Study of Key Philosophical Concepts*. Berkley, CA: University of California Press, 1984, 48.

7. Ulya Vogt-Göknil, *Mosquées: Grand courants de l'architecture islamique*. Paris: Chêne, 1975, 23; cited in Cervenot 1994, 34.

8. Hadith, Sahih al-Bukhari, 649.

9. On the esoteric dimension of ritual worship in Islam see William C. Chittick, *The Sufi Path of Knowledge: Ibn al-Arabi's Metaphysics of Imagination*. Albany, NY: State University of New York Press, 1989, 152-153.

10. Mohammed Arkoun, *Rethinking Islam: Common Question, Uncommon Answers*. Trans. and ed. by Robert D. Lee. Boulder, CO: Westview Press, 1994, 52-59.

11. Robert Hillenbrand, *Islamic Architecture*. New York: Columbia University Press, 1994, 42-44.

12. "A bird's eye view of the Moslem world at the hour of prayer... would present the spectacle of a series of concentric circles of worshippers radiating from the Ka'bah at Makkah and covering an ever-widening area from Sierra Leone to Malaysia and from Tobolsk to Capetown." Philip K. Hitti, *History of the Arabs*, 10th edition, with a preface by Walid Khalidi. New York: Palgrave Macmillan, 2002, 130.

13. Titus Burckhardt, *Art of Islam: Language and Meaning*. Bloomington, IN: World of Islam Festival Trust, 1976, 4.

14. Henry Corbin, *Creative Imagination in the Sufism of Ibn'Arabi*. Trans. Ralph Manheim. Princeton, NJ: Princeton University Press, 1969, note 17.

15. Mohammed A. Bamyeh, *The Social Origins of Islam: Mind, Economy, Discourse*. Minneapolis, MN: University of Minnesota Press, 1999, 3-11.

16. Koran, 11:112.

17. The five daily prayers together add up to 34 required prostrations per day, or 744,600 required prostrations over 60 years. The numbers double if 'recommended' (sunnah) prostrations are added to the calculation. Shia and Sunni worship ritual numbers are roughly equivalent.

18. Ibn Khaldun, *The Muqaddimah: An Introduction to History*. Trans. Franz Rosenthal, ed. N. J. Dawood. Princeton, NJ: Bollingen Series, 1967.

19. Arkoun, *Rethinking Islam*, 38.

20. Shams-i-Tabrizi: Only when the arrow escapes the bow of the body does it reach its target. Hallaj: The sufi is an archer aiming at God. Rumi: Remain straight like an arrow that escapes the bow, for the straight arrow surely reaches its target.

21. David A. King, *World Maps for Finding the Direction and Distance to Mecca: Innovation and Tradition in Islamic Science*. Leiden: Brill, 1999, 2-5.

22. Arkoun, *Rethinking Islam*, 35-39.

23. Michel Foucault, *Surveiller et punir*. Paris: Gallimard, 1975.

24. Godfrey Goodwin, *A History of Ottoman Architecture*. London: Thames & Hudson, 1992, 215-239.

25. Ibid., 230.

26. Koran, 77:10, 78:20.

27. Koran, 3:37. The full verse reads as follows: Whenever Zacharias entered the mihrab to (see) her he found her with sustenance (life, livelihood). He said: O Mary (mother of Jesus) whence comes this to thee? She said it is from Allah. Surely Allah gives to whom He pleases without measure."

28. James Dickie, *Architecture of the Islamic World: Its History and Social Meaning*. Ed. George Michel. London: Thames and Hudson, 1978, 33.

29. The Kaaba is 12m high, 10m to 12m wide. The mihrab frame is 12.5m high and 10.5m wide.

30. Le Corbusier, *Journey to the East*. Ed. and trans. Ivan Zaknic, Cambridge, MA: MIT Press, 1987, 100.

31. Koran, 96:19.

32. Edward Said, *Culture and Imperialism*. New York: Vintage, 1994, 332.

33. Patrick di Justo, "A Muslim Astronaut's Dilemma: How to Face Mecca From Space." Wired Blog, entry posted Sept 26, 2007: <<https://www.wired.com/2007/09/mecca-in-orbit/>> [accessed May 5, 2017].

A NOT ENTIRELY VOLUNTARY COMEDY CALLED ARCHITECTURE

Kristian Faschingeder

Soon afterwards the architect returned because of his right to check on the placement of objects, and to answer complicated questions. He entered the room. The prosperous man, who had many concerns on his mind, came to greet him warmly.

The architect didn't recognize the happiness of the prosperous man, but he had discovered something else, and the colour had run out of his cheeks. "Why would you be wearing those slippers?" He blurted out.

The master of the house looked at his embroidered shoes, and sighed in relief. The shoes were made from the original design of the architect himself. This time he felt guiltless. He answered thoughtfully.

"But Mr Architect! Have you forgotten? You designed these slippers yourself!"

"Certainly!" The architect thundered. "But for the bedroom! With these impossible pieces of colour you are destroying the entire atmosphere. Don't you even realize it?"

(Adolf Loos, "The Poor Little Rich Man", 1900)¹

Adolf Loos puts it in a nutshell: architects are not inclined to joke. Also, architecture itself is not necessarily associated with humour. On the contrary, many architectural founding myths are based on an act of violence or the concealment of a crime. The Bible attributes the creation of Enoch, the first earthly city, to the murder of Abel by his brother Cain. The founding of Rome, on the other hand, has been attributed to the murder of Remus by his brother Romulus. The Greeks, in turn, attributed the invention of architecture to the necessity to keep a monster at bay. Daedalus built a labyrinth in which the Minotaur was held captive; the Minotaur being an amalgamation of man and animal that had sprung from the union of queen Pasiphae with a white bull. And finally, Aristotle mentions the pyramids as an example of how tyrants keep their people busy and poor at the same time through large construction projects.²

I. Modernism

Such costly and lengthy construction projects should be unthinkable in a freedom-loving society such as ours, of course. Nowadays, the individual pursuit of happiness is ranked at the forefront. The resulting sense for joy and entertainment, cheerfulness and fun must necessarily find its precipitation in architecture – only, where? Loos himself, who gladly showered his colleagues with biting sarcasm, and whose opinion about houses was that they should please and be cozy,³ advocated a very reduced, not to say ascetic formal language. Even more so, his contemporaries Le Corbusier and Ludwig Mies van der Rohe, who preached the radical clearing out of all that had been achieved by architecture thitherto. Ironic distance or humorous play was the last thing that came to their mind, even though they felt entitled to lead people to a better and happier life.

Le Corbusier, for instance, one of the icons of modernist architecture, represents the ascetic character par excellence. He sees himself as a persecuted personality, whose life is just one long struggle: “Je suis un type boxeur”,⁴ as he once declares. He creates a personality for himself and elects his famous *nom de guerre*, with which he embarks on a mission, which is to educate people to *open their eyes*. And so he preaches the liberation from all those things which the architecture had brought about until then. He goes as far as to demand the tearing down of entire cities, as several of his designs show, impressive and startling as they are.

Modernist architects see their work as pure necessity on the road to a renewed society. Le Corbusier is in good company when it comes to imposing one’s own ascetic view of life onto the contemporary subject of his time – which in any case is mostly perceived in its plural; as a mass that needs to be cultivated, directed and kept under control by any means. Ludwig Mies van der Rohe, whose “Less is More” became one of the leitmotifs of Modernism, considered himself an instrument at the service to the will of his time. The present age, he argued, asks for an architecture consisting of reduced geometric bodies that are driven to perfection. First of all, he promoted prismatic buildings, for which he became famous. Frank Lloyd Wright, for his part, assumed the truth of architecture in a design system that had to be coherent across different scales. Accordingly, he designed his houses down to the individual piece of furniture – everything becoming part of an organic whole. The first person to be affected by his designs was himself, as he often got bruises from his earlier pieces of furniture, which were quite as sharp-edged as the buildings they were intended for.

Architecture, it seems, is a serious matter. It calls for an integrated design, if it ever is to bring forth the True and Eternal among the people, which is to say: art. And this is exactly what Loos often found so amusing. When it comes to happiness and joy, architecture is even more earnest. Consider the “stone of good fortune”, which Johann Wolfgang von Goethe erected next to his garden house in Weimar, a monument that simply consists of two perfect Platonic solids: a sphere placed on top of a cube. Just as much as the Bauhaus did, Le Corbusier

himself would have rejoiced at this expression of a profound joy of life. For the latter, joy was not to be found in that which is short lived, but in the patient search for perfection, and thus in the truly lasting. And yet, perhaps one should look precisely there – into the fleeting things, such as they are to be found in theme parks and entertainment centres – to discover an architecture that, to put it another way, is also quite humorous. To do this, however, one must accept a more generous view of humour itself.

II. Critical Reconstruction

Today the old (“vintage”, as some might say) is back in fashion. For the Italian architect Vittorio M. Lampugnani, for instance, who advocates an aesthetic of the permanent, “our era cannot afford anything else.” We find, again, the claim to pure necessity. Architecture must be a buttress against the ruling disorientation, he says, “against the increasing uncertainty of the values.”⁵ According to Lampugnani, the best form of refinement simply consists in habituation: “The basic solutions, which have resisted the selective process of historical Darwinism, are not only the best from the point of view of an artisanry of design in the strictest sense, because they are easy to construct, easy to implement, because they are durable and work well. They are also the most familiar and therefore the most intelligible, namely because they have been constantly repeated.”⁶

Merry improvising or the new has no place in Lampugnani’s world. The best example of this is the much-discussed reconstruction of the Berlin City Palace, the Stadtschloss (Fig. 1). The palace might not have resisted historical Darwinism, but its reconstruction apparently arises from necessity. It has namely been discovered that the boulevard Unter den Linden is a *Gesamtkunstwerk*, a total work of art. In such a work, each part has its specific purpose and its immutable order. The good old palace, a representative of a time long past, must return to where the *eye that sees* sorely misses it. In his role as chairman of the jury for the competition on the disputed grounds, Lampugnani can put his theories into practice: “It is this inventory that transforms the design beyond its material value into a cultural instance.”⁷

Since the original drawings were destroyed during the Second World War, the reproduction will be a rough, but solid replica, made entirely of concrete. So much concrete is heavy, and as a consequence the last remains of the former palace, the old wooden piles, had to be removed from the ground. They were, as the *Berlin Extrablatt* explained, “felled about three hundred years ago in the primeval forest of Brandenburg,” and now can be purchased. If you have no need or room for a wooden pile, you can still purchase an ornament. The latter will be put onto the facade of the new palace, where there is ample space for it. The rear of the palace was not baroque and much too intricate for a reconstruction. It will be replaced by a simple building block. If its facade would consist of just a little more glass, Mies would have rejoiced. Instead, this tract, which faces the eastern side, seems rather

to be a late tribute to a specialty of the old GDR, the prefabricated Plattenbau. Now, this building type is virtually being ennobled through its reincarnation in a baroque palace! And who would want to complain? To the doubters it can be said: if there's no prince inside, art itself will find its way into it. The citizens of Berlin will be more than happy; and Loos, too, would have foreseen it:

The rich man was overjoyed. [...] Art everywhere he looked. Art in everything and anything. [...] He indulged himself with outrageous fervour in art. Since his plates were artistically decorated, he cut his Bœuf à l'Oignon with still more energy.⁸

Loos is quite right: art and fine dining belong together. One can expect that upscale gastronomy will receive its due location in the newborn palace.

III. Theme Parks

Loos demonstrated that architects do not necessarily have to be serious. (At which point it should be noted that his mockery only applied to the works of other architects.) But what about an architecture that is devised in advance as a humorous or ironic gesture? Would such a thing be possible? This culturally-minded reconstruction of a palace, after all, exemplifies a quite involuntary form of comedy. And yet it possesses a close relationship with buildings whose purpose lies in the creation of delight and pleasure. Through its reconstruction of historical buildings (and streets, as well), the centre of Berlin is gradually becoming a kind of theme park of its own. First and foremost, we know of theme parks from examples such as Disneyland or even shopping centres, where they serve to transform shopping into a pleasurable “Experience”. However, this concept is also being applied to entire cities, where they are supposed to boost tourism. Other European cities are leading by example, such as Vienna, the home city of Loos. The emperor, who resided across the square, was not amused about Loos’ house at Michaelerplatz, and decided to close his curtains to block this “monster of a house” (“Scheusal von einem Haus”) from view. Back then, an obstinate architect had humbled the ruler of a huge empire. Today both the house of Loos and the castle of the Emperor belong to the same Vienna experience. Eventually, Austria got a bit smaller, and so everything needs to move a little bit closer together.

It might seem particularly ironic that the architecture of amusement parks is supposed to represent the exact opposite of a historical reconstruction within the urban fabric. The latter stands for the permanent and durable; its purpose lies in the conservation of the cultural heritage and in the restoration of historical ensembles. It is a serious matter and is based on the fundamental assumption that architecture is permanent and static. The former merely wants to entertain, astonish, delight and startle. In order to withstand the danger of boredom and weariness that is always looming, its staged space must continuously create new

imageries. The night life districts and the theme parks of the world are full of examples of a playful fun architecture.

Amusement parks allow for a common, joyful experience. Though laughter is an individual act, it constitutes a predominantly communal experience. Indeed, “happiness”, as the writer Paolo Coelho claims, “is contagious”.⁹ In architecture however, humour does not seem to be related so much to a specific building vocabulary than to the social component of the performative space of experience. Furthermore, one would have to ask if the buildings of the amusement parks even qualify as “architecture”? Do they not simply consist of inexpensive mock-ups? Are they not simply non-committed, temporary arrangements that are being replaced at the whim of the latest fashion?

The traditional view that architecture is as much static as it is grave was most notably questioned in the 1960s, particularly by the group Archigram. For instance, in their project *Instant City*, they devised a lightweight architecture that was to be delivered by airship. It should at once provide the monotonous suburban life with a cheerful, modern urbanity. At its core stood multimedia installations, recreational facilities, exhibitions and fun festivities. The colourful, technologically enriched architecture was presented as an event that celebrates the ephemeral. This should have allowed for a hedonistic society, which, true to the convictions of the 1960s, would also lead to an emancipated society. Their loud and trendy collages promised alcoholic drinks, cars, stunt shows and (among other things) beautiful models to an enthralled audience. Sure enough, it came to nothing.

Just a few years later, in 1972, another then young architect by the name of Rem Koolhaas, made a parody of the hitherto pertinent belief that the world could be made better by means of architecture. His diploma thesis at the Architectural Association in London, “*Exodus, or the Voluntary Prisoners of Architecture*”, consisted mainly of a straight walled strip of “intense urban attractiveness”,¹⁰ that was to be built across the inner city centre of London. The sheer appeal of this architectural piece should be so enormous that the citizens would voluntarily renounce their freedom and move into this monstrous building, while the rest of London would fall into disrepair. In his project, Koolhaas made a direct reference to the Berlin Wall, which he sarcastically celebrated as an architectural masterpiece. Today, the Berlin Wall no longer exists. Instead, another strip across Berlin, the boulevard *Unter den Linden*, is being restored. Of all things, the *Berliner Schloss* is still missing in the coherent, closed cityscape. The palace is supposed to become the “gravitational centre of the city, its focal point”, so that Berlin can be a “long-term magnet for visitors”, as the association *Förderverein Berliner Schloss e.V.* declares on its website.¹¹ The architecture of the palace is virtually going to be “attractive”. The voluntary prisoners of architecture can soon gather in this involuntary comedy. The point of Koolhaas’s sarcasm, however, was not to be taken literally.



Fig. 1: Mock-up of the proposed front of the Stadtschloss, Berlin..

Notes

1. Adolf Loos, "Vom Armen Reichen Mann", *Neues Wiener Tagblatt*, April 26, 1900.
2. "And it is a device of tyranny to make the subjects poor, so that a guard may not be kept, and also that the people being busy with their daily affairs may not have leisure to plot against their ruler. Instances of this are the pyramids in Egypt and the votive offerings of the Cypselids..." Aristotle, *Politics*, 1313b.
3. Adolf Loos, "Ueber Architektur", *Der Sturm*, Berlin, Dec. 15, 1910. *Über Architektur. Ausgewählte Schriften*, A. Opel (ed). Wien: Prachner, 1995.
4. Le Corbusier, in 1947. Cited in Charles Jencks, *Le Corbusier and the Continual Revolution in Architecture*. New York: The Monacelli Press, 2000, 26.
5. Vittorio Magnago Lampugnani, *Die Modernität des Dauerhaften, Essays zu Stadt, Architektur und Design*. Transl. from Italian by Moshe Kahn. Berlin: Wagenbach, 1995, 72.
6. Ibid., 83. See also: Ingrid Erb, "Venedig in Wien. Inszenierung des Ephemeren", in Dominic E. Delarue, Thomas Kaffenberger & Christian Niile (eds), *Bildräume / Raumbilder: Studien aus dem Grenzbereich von Raum und Bild*. Regensburg: Schnell & Steiner, 2017.
7. Lampugnani, *Die Modernität des Dauerhaften*, 72-73.
8. Loos, "Vom Armen Reichen Mann".
9. "Stay close to those who sing, tell stories and enjoy life, and whose eyes sparkle with happiness. Because happiness is contagious and will always manage to find a solution, whereas logic can find only an explanation for the mistake made." Paulo Coelho, *Manuscript Found in Accra: A Novel*. New York: Knopf Publishing Group, 2013, 110.
10. Rem Koolhaas and Bruce Mau, *S, M, L, XL*. New York: The Monacelli Press, 1995, 5.
11. Förderverein Berliner Schloss e.V.: <<http://berliner-schloss.de/>> (accessed 2.1.2016).



SOLIDLESSNESS!

J.M.W. TURNER AND SOU FUJIMOTO

Joaquim Marcelino Santos

The revolutionary architects of the 18th century defined light and colour in accordance with the precise rules of geometry. Solid and void, coexisting within the world of sharp shapes and volumes, came to dominate the centre of the architectural imagination. The stars in Étienne-Louis Boullée's Cenotaph for Isaac Newton (1784) would not have exactly twinkled, but rather would have displayed the sharpness of the laws of geometry and arithmetic, and indeed the internal fires lit in Boullée's Métropole Cathedral (1782) and Museum (1783) would have seemed weak in offering any challenge to the accuracy of the lines by which they were placed in space and time. Solid shapes and colours appeared to be the distinct marks of the new scientific era. And yet the universe of the rational mind was soon challenged by the eyes that see, by the body that feels the world beyond geometric-mathematical frameworks. The arising challenge proved to be that the frames of reference were nothing more than the confined methods of abstract representation.

The English painter J.M.W. Turner shook the solidity of solid and void at around the time that the volcano Mount Tambora in Indonesia shook the solidity of the Earth in 1815. The immediate world of shapes as people experience them could not be hidden behind geometric-mathematical formulas, and consequently the representation of the world as such would have to be reinvented. Yet such a challenge from painting seemed difficult for the core of architectural creativity, and even Modernist Architecture seemed to prefer accurately defined volumes and shapes. Postmodern architecture proceeded along similar lines, and it was only with developments in materials, such as structural glass or Plexiglas, that architects could imagine shapes that would question the appearance of solidity.

The Japanese architect Sou Fujimoto's constructive 3D matrix cloud, which gave life to the 2013 Serpentine Pavilion in London, seemed to display the same important characteristics that Turner's works first brought to the art world. Both embody the world we live in, as well as present the world as a representation of *being-in-the-world*. The *massness-colourness-solidlessness* evident in the work of Turner and in Fujimoto's pavilion may thus emerge at the core factor in contemporary art production and theory.

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<< Fig. 1: Detail of J.M.W. Turner's *The Wreck of a Transport Ship* (c.1810). Image: © Courtesy of Calouste Gulbenkian Museum. Copyright: Catarina Gomes Ferreira.

Buildings are solid and stand on solid ground or solid foundations. We regard matter as potential building material, and that matter is tangible through its very solidity. The pairing solid-void seem to stand in opposition, binary opposites mutually defining each other, and both can also be understood as building materials. Space and spatial boundaries seem to give any architectural understanding a distinct clarity. We may say that solid and void became self-evident and effective in describing architectural composition and the experience of architecture. Even a ship sets its solidity in opposition to the liquid water within which it navigates. And if we look at Turner's painting *The Wreck of a Transport Ship* (c.1810) (Fig. 1), we see the surface depicting the solidity of the ship loosening and breaking up within the immensity of the sea.

But solidity is challenged by gravity, space and time. In the 17th century Isaac Newton and Gottfried Wilhelm Leibniz brought the concepts of space and time to the centre of a philosophical discussion that would reach its pinnacle with the theory of relativity formulated by Albert Einstein in the 20th century. Gravity made space dense. That void, somewhere there within the core of outer space, lives because gravity lives there, the same gravity that enables me to walk on streets, fields and mountains. The unseen, the colour-free emptiness, builds the universe and builds life. And with this basic building block of the universe, architecture proceeds by overlapping solid bricks in order to confine "empty" spaces.

As gravity is so fundamentally important, it may seem obvious that we need simple three-dimensional reasoning, a Euclidean mind, in order to accurately build long-lasting buildings. Nonetheless, the challenge to solidity was somehow of great importance in the era that brought forth mechanisation and the transparency of the novel iron-steel structures of 19th and 20th century architecture. Such structures, despite the transparency they would convey, would not abandon the solidity of the materials they were built from, to oppose the glass that could provide either solidity or transparency depending on the light and reflective conditions. However, the simplicity of stereometric, solid-like volumes became a distinct mark of Modernist architecture, despite the transparency that glass could provide. A solid-free structure seemed an impossible challenge to architecture.

In fact, three dimensions are strong enough to support the atomic forces of nature in regard to tension and compression: we step on surfaces and textures that belong to a world of solidity that makes the world we live in and construct easily tangible. Yet we could say that space and time read terra firma backwards and may break down solidness. Upwards our eyes see the blue sky that is only the beginning of an "empty" infinite, an immense void where a whole variety of solids, of atoms combined in extraordinary ways, exist. And zero degrees Kelvin give solidity to everything but not the void itself.

Along with this new awareness of space and time, chemistry and especially physics and mathematics have provided architects and engineers with new ways

of dealing with ancient materials and thus of creating new ways of building. Yet a deeper revolution takes place, one that arises from the world experience of nature such as we fashion it through our body-mind-world. The ever-present framing of God-Man-Nature makes individuals regard nature and natural processes as overwhelming phenomena that Man himself partakes by his material condition but that might no longer be confused with a mortal mundane condition that intrinsically opposes the sacred. Thus, nature does not appear on a lower level regarding man as a divine creation, but rather man might understand himself better by knowing his natural environment. In some sense, then, nature takes place beyond the artificial man-made-world.

In his book *Civilization*, Kenneth Clark explained how important nature was in the 19th century, and for instance how it was fashionable to take long walks in the country side, to cross woods and forests, hills and valleys and, last but not least, how important it became to observe the sky. Clouds and winds, light and shadow, day and night, colours, they all create an incredible territory of events as objective as *terra firma*. Those materials that construct the sky are not solid and yet they *are* solid and represent the active forces of nature, such as the ground that I step on and which holds me on the upper surface of the world beneath the sky. Those materials are not solid but they are real and may affect my body and mind more profoundly than the solidity of the world. And they certainly provide a strong challenge to representation. Thus the materiality of pigments and canvas represented an amazing challenge at the core of artistic mimesis. And no painter seemed to better answer that challenge than William Turner (1775-1851).

Turner: solidness gives way to solidlessness

The sky, as an actual territory of events, involves the earth itself and clouds that move and change their shape and colour. Solidness gives way to solidlessness and challenges architecture and human landscapes. Paintings such as Turner's *Dido building Carthage*, or *The Rise of the Carthaginian Empire* (1815) and the later *Norham Castle Sunrise* (c. 1835-40) not only display the triumph of the romantic revolution but also put forward a challenge to architecture-by-being-environment-within-environment that places colour as a final challenge. The sense of wholeness is of greater importance. Solids and voids mingle to some extent and share a common experience that draws us in, into the realm of both painting and nature.

Thus Turner challenged the solidity of classical architecture, a solidity that Étienne-Louis Boullée, Claude Ledoux and Jean-Jacques Lequeu, had put forward as a milestone in the neoclassical revolution in architecture that would be precisely accompanied by the accuracy of drawing and construction. In fact, the sources of modern architecture developed a clear definition of forms and construction methods to which the free behaviour of the sky above the building seemed alien. The light-shadow atmosphere that Boullée displays inside his "virtual" buildings gives solidity to light-colour rather immaterially. Light moves

along the surface of a sphere and displays infinite variation, but it is exactly that, a solid surface, and light-colour become meaningful by being solid, a privileged place for their divine revelation. According to this view, the height of the light-colour experience has to be the solid, not the void.

Consequently, we may say that Turner's representations of classical architecture are no longer classical. The painting *Dido building Carthage* put forward a challenge to *architecture-by-being-environment-within-environment* that placed colour as the final experience, something that even seems valid for contemporary architecture. Vibrating light and colour floods into the universe of architecture-nature like a storm.

Architecture under the role of mathematics and construction certainly has to be seen in a different way, even if the magnificent *light-by-being-light-by-being-architecture* that filled Joseph Paxton's Crystal Palace (1851), London, was successful in bringing into architecture the architecture of the colourful sky. As Alberto Campo Baeza put it, the new architecture of the nineteenth century presented the great new possibility of bringing light into the building from all directions. The divine light, an ancient aspiration of architects, finds a new materiality that combines with any construction material that the architecture makes use of.

In Turner's works the infusion of *man-architecture-environment* is both an awareness of a new man's world consciousness and the characterization of an idea that would build a future architecture far beyond the Modern era.

It is far more interesting that sensible modern architecture be ascribed to the Arts & Crafts and to a local displacement from the Functionalist core. Thus materials, materiality, colour and texture seem to be the critical standing points regarding sensibility in what it opposed to an objective rationalism. Sigfried Giedion put forward such an enduring argument in *Space, Time and Architecture* and it seemed a strong formula in an era that easily placed Frank Lloyd Wright and Alvar Aalto on one side and Le Corbusier and Walter Gropius on the other. And the free plan, the "empty" plan, only makes sense if one creates the suitable solids to make spaces suited to a certain lifestyle.

The distinguished glass façade of Modern Architecture was typically used to create a fascinating atmosphere of transparency, and also an atmosphere of volume. This nineteenth-century heritage was found in Bruno Taut's Glass Haus (1914), in Ludwig Mies van der Rohe's project for a skyscraper in Berlin (1922), or Walter Gropius Bauhaus Building in Dessau (1925-26), among many other architectural experiences.

Perhaps the evolution from Cubism to Suprematism and Constructivism already provided a strong field of research regarding new materials and technologies. As well as giving a sense of synthesis of form with regard to architecture, the enduring art object, as a loosening of solidity, was far too strange even to the modern mind.



Fig. 2: Sou Fujimoto, Serpentine Pavilion, London (2013). Top: A cloud-like phenomenon / A natural-artificial phenomenon that invites me in / A cloud that belongs to both ground and sky. Middle: The sky that belongs to the cloud / Natural-artificial moving transparency. Bottom: A peaceful cloud in which I can live / A world of sensitive kinetic experiences.

And from this background we can jump in space and time to Sou Fujimoto's 2013 Serpentine Pavilion (Fig. 2). Certainly other previous pavilions in the grounds of the Serpentine Gallery in London used transparency versus opacity or solid versus void as a working methodology. And yet Fujimoto's project seems to go further. It is characterised by a "cloud" effect springing from the environment, in which the ground and sky seem linked. Furthermore, the cloud seems to be a natural-artificial phenomenon that invites me in, yet does not possess a common solidity, but rather somehow appeals to a natural-artificial experience not too far from Turner's environments, in which the natural and the artificial, the building, is embodied by a single atmosphere of light and colour. Certainly Turner worked appropriately with the colours depicting the tragedy of nature; for instance, working successfully with the colours of the triumph of man over nature by building Carthage. In comparison, Sou Fujimoto provides a peaceful cloud in which I can happily live, sitting or stepping on transparent glass. Yet both the glass and Plexiglas built in to the structural matrix create continuing changes in appearance as I move around, move in, or around the inside-outside.

Both the experience and appearance are somehow hard to describe, especially because of that *terra firma* that expects only clouds somewhere there up in the sky for us to live on. But trees, branches and leaves, moved by the wind and reflecting the moving sun, are also in this sense solid and void, as well as movable. Thus, in the same way that Turner's depiction of nature changed nature, because we would no longer see nature in the same way as before, we could also say that Sou Fujimoto's Serpentine Pavilion has taken us to another dimension of creating architecture and nature, in fashioning both, and of understanding the experience of *solidlessness* as a heuristic factor in architecture. And ultimately, we comprehend how we have delved into the poetics of architecture, into the aesthetic experience of the world we live in.

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ROMA O MORTE: A TOURIST POLICE STATION IN ROME

Dörte Kuhlmann

Merging the techniques of the detective novel and Freud's methods of condensation and displacement with the conspiracy theories surrounding the assassination of Aldo Moro, the TU-Wien studio "Rome or Death" positions architecture between tourism and crime. Building upon a paranoid-critical reading of the tight urban site in central Rome, diagrams of the panopticon and the panorama are utilized in the design of a tourist police station.

Murders

Insisting that "to really appreciate architecture, you may even need to commit a murder", Bernard Tschumi explains:

Architecture is defined by the actions it witnesses as much as by the enclosure of its walls. Murder in the Street differs from the Murder in the Cathedral in the same way as love in the street differs from the Street of Love. Radically.¹

If Tschumi is right, it is best to begin with the analysis of the project site at the corner of the Via delle Botteghe Oscure and the Via Celsa with a review of some of the events it has witnessed (Fig. 1). In the 1950s and 1960s the "Street of Dark Stores" was famous for the literary magazine *Botteghe Oscure* published by the Foundation Camillo Caetani housed in the Palazzo Caetani (Alessandro Ammannati, 1564) together with the Foundation Roffredo Caetani which uses its assets to protect the family castle in Sermoneta, and the "Sanctuary of the Nymphs", that is the ruins of a temple which were discovered in 1938 while widening Via delle Botteghe Oscure. What many Romans today associate with the location is, however, the assassination of Aldo Moro, a five-time prime minister whose dead body, riddled with bullets, was found on the Via Michelangelo Caetani, a stone's throw away from the present site on May 9, 1978.

Moro had been kidnapped on March 16, 1978, by the Brigade Rosse 2, or the Second Red Brigade, led by Mario Moretti (Fig. 2). In the ensuing 55 days of captivity, Moro issued many public statements and wrote several letters to the Pope Paul VI and the leaders of his party, the Christian Democrats. These letters,



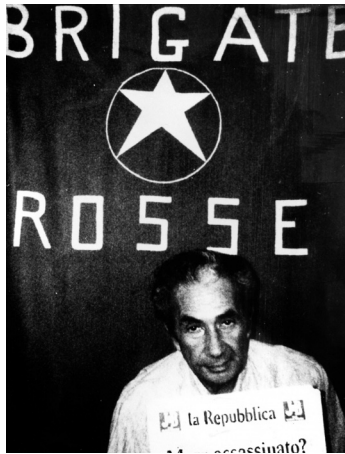


Fig. 2: Aldo Moro during his imprisonment by the Brigate Rosse in 1978.

often very critical of the second man in the party, Giulio Andreotti, were kept secret until the 1990s. Moretti recalls his days with Moro: “We didn’t know a thing about how the power game is played. Moro taught me to understand it a little, clarifying what immediately became his battle against his party, the battle that in the end he’d lose. We were on opposite sides, but we worked together. I would pass along some information, a newspaper; all he would need was a few details, often a mere remark, to grasp what was going on. This was his universe, and he knew it to perfection.”²

The government, led by Andreotti, refused to negotiate with the terrorists and argued that Moro had been drugged or coerced to make his statements. On May 9, the Red Brigade responded by emptying ten rounds of bullets into Moro’s body and leaving it in the trunk of a Renault 4 parked in the Via Caetani, equidistant from the headquarters of the Christian Democratic Party at the Piazza del Gesù and that of the Communist Party at the Via delle Botteghe Oscure.

As early as May 1978, journalist Mino (Carmine) Pecorelli, writing in the newsletter he edited, *OP – Osservatore Politico*, argued that Moro’s kidnapping and assassination on the obscure street had actually been masterminded by a “lucid superpower” that followed the “logic of Yalta”, i.e. the mindset of the Cold War. Moro had been negotiating a historical compromise – *compromesso storico* – to allow the Communists in to the government for the first time in three decades. Pecorelli was assassinated on March 20, 1979.

In October, 1990, Andreotti publicly acknowledged the existence of Gladio, a NATO-backed anti-communist organization, naming 622 civilians who had been

<< Fig. 1: Corner of the Via delle Botteghe Oscure and the Via Celsa, Rome.

part of the organization. He denied, however, the charges that Gladio had been involved in bombings and other terrorist activities from the 1960s to the 1980s, often associated with the neo-fascists (as in the 1969 Piazza Fontana bombing) or the masons, in particular the Propaganda Due (P2) lodge which counted as its members the future prime minister Silvio Berlusconi and Vittorio Emanuele, Prince of Naples and the Savoy pretender to the Italian throne, as well as Pecorelli himself. P2, founded in Turin in 1877 as Propaganda massonica, had become a shadow government which also was involved in numerous international covert operations, in particular in Buenos Aires, Argentina. In 1999, senator-for-life Andreotti, together with a former minister Claudio Vitalone, the mafiosi Gaetano Badalamenti, Giuseppe Calò and Michelangelo La Barbera, as well as Massimo Carminati of the extremist neo-fascist organization *Nuclei Armati Rivoluzionari* were charged with the murder of Pecorelli but initially acquitted. Three years later, Andreotti and Badalamenti were both condemned to 24 years of prison for their involvement in the assassination, while the others were acquitted. A year later, when Berlusconi was prime minister, Andreotti was cleared by Italy's Supreme Court of involvement in Pecorelli's killing.

Layers

Today, a plaque on the house at 9 Via Caetani commemorates Moro's murder. According to Sigmund Freud, architecture often maintains the memory of the past in this way. He argues, however, that the function of architecture as the bearer of collective memory is pathological, and compares it to hysteria. He asserted: "Our hysterical patients suffer from reminiscences: their symptoms are the remnants and the memory symbols of certain traumatic experiences." He then went on to make a comparison with other memory symbols, namely urban monuments:

The memorials and monuments with which we adorn our great cities, are also such memory symbols. If you walk through London you will find before one of the greatest railway stations of the city a richly decorated Gothic pillar – "Charing Cross". One of the old Plantagenet kings, in the thirteenth century, caused the body of his beloved queen Eleanor to be borne to Westminster, and had Gothic crosses erected at each of the stations where the coffin was set down. Charing Cross is the last of these monuments, which preserve the memory of this sad journey. In another part of the city, you will see a high pillar of more modern construction, which is merely called "the monument". This is in memory of the great fire which broke out in the neighborhood in the year 1666, and destroyed a great part of the city. These monuments are memory symbols like the hysterical symptoms...³

Much more than London, Rome is a site of memory materialized: within the Aurelian walls one can hardly take a step without touching a fragment of its layered history that spans well over two millennia. Going back in history, we can recall a few moments in the history of our studio site:

Republican Rome: In Augustan times, it was flanked by the Theater and Crypt built in 15 BC by Lucius Cornelius Balbus, one of Augustus' best generals, and the Diribitorium, a building originally erected by Augustus in 7 BC for the election officials that would count the votes cast by the people. Later, Caligula converted the Diribitorium into a theater, and it was from the roof of this theater that Claudius watched the great fire of 38 AD. A fragment of the Crypta Balbi still remains in a structure that houses one of the Roman museums of antiquity; there are also remains of the Sanctuary of the Nymphs, a temple from the Republican period located at the heart of Porticus Minucia Frumentaria, a square portico built in the imperial age (probably under Claudius and Domitian) to distribute free wheat for the poor of Rome.

Baroque Rome: Centuries later, during the Counter-reformation, the site was enhanced by several churches, including Il Gesù, the main church of the Jesuits, as well as the church and conservatory of Santa Caterina dei Funari (1570). The latter building, initiated by Ignatius Loyola himself, also included a conservatory to house the daughters of Roman prostitutes.

Fascist Rome: In 1926-29, as part of the Fascist restructuring of Rome, the area between the Teatro Argentina and the Corso Vittorio was excavated, bringing to light the four temple ruins of the Largo Argentina, and also widening the Via delle Botteghe Oscure in order to make a major axial connection to the Piazza Venezia, the Fascist headquarters. Had the axis of the "Street of Dark Stores" been continued in the opposite direction, it would have ended at the Carcere Regina Coeli or the Prison of the Queen of Heaven, the main prison of Rome across the Tiber.

Correspondences

The rebuilding of the Via delle Botteghe Oscure was part of Benito Mussolini's building campaign which was to restore the glory of Imperial Rome. The Piano Regolatore of 1931, developed by Marcello Piacentini and Antonio Muñoz, also involved the redesign of the Piazza Venezia in front of the huge white marble monument "Il Vittoriano" (Fig. 3). To understand the Fascist plan, one has to know that the Vittoriano (begun in 1885 by Giuseppe Sacconi) was built in order to present the first king of Italy, Vittorio Emanuele the Second, as the last of the emperors.

The dimensions and the shape of the Vittoriano's curved stoa as well as the length of the complex are taken directly from the adjacent Forum of Trajan; the



Fig. 3: Vittorio Emanuele II monument and Piazza Venezia, 1920.

central axes of Trajanum and of Vittoriano meet at the center of the remaining exedra of the ancient forum. Moreover, Vittorio Emanuele is represented by an equestrian statue, just like Trajan was in his forum. However, the siting of the two monuments varies to make further symbolic connections motivating the Vittorio Emanuele II monument. The Vittoriano sits on the Capitoline hill rather than the level of the imperial fora. It terminates an axis from the Piazza del Popolo, linking the ruler to Sistine Rome, the short-lived Roman republic of 1798 and Napoleonic reformism. The Capitoline site evokes a connection with both the sacred center of ancient Rome and the secular center of Michelangelo's Rome. Moreover, topography itself has symbolic implications in the layered archaeology of Rome. Siting the monument on a hill could be understood as a graphic representation of the strata of the centuries separating the newly-installed House of Savoy from the emperors. Architecturally, the terraced composition recalls one of the early Roman monuments, the oracular sanctuary of Fortuna Primigenia in Palestrina. Interestingly, the inauguration ceremony of the Vittoriano in 1911 made reference to history even more ancient than Rome. In the belly of Vittorio's horse, a banquet was held for ten guests, accurately, even if perhaps inadvertently, equating the royalists' cleverly maneuvered unification of the Italian states with the subterfuge capture of Troy.

The Fascists continued the urban renovations began in the 1880s and explored in particular axial connections (Fig. 4). Thus, the central axis of Mussolini's Third Rome, the EUR or E42, for example, connects the new Fascist center to the Piazza Vittorio Emanuele (Gaetano Koch, 1882-87) close to the main railway station, or more precisely to the ruins of a Nymphaeum built at the time of Emperor Alexander Severus, a water castle fed by two different aqueducts which then flowed into three distribution channels bringing water to different parts of the city. Next to the Nymphaeum in the Piazza is also the Porta Magica, also known as Porta Alchemica, Porta Ermetica or Porta dei Coeli, a magical, alchemical, or hermetic

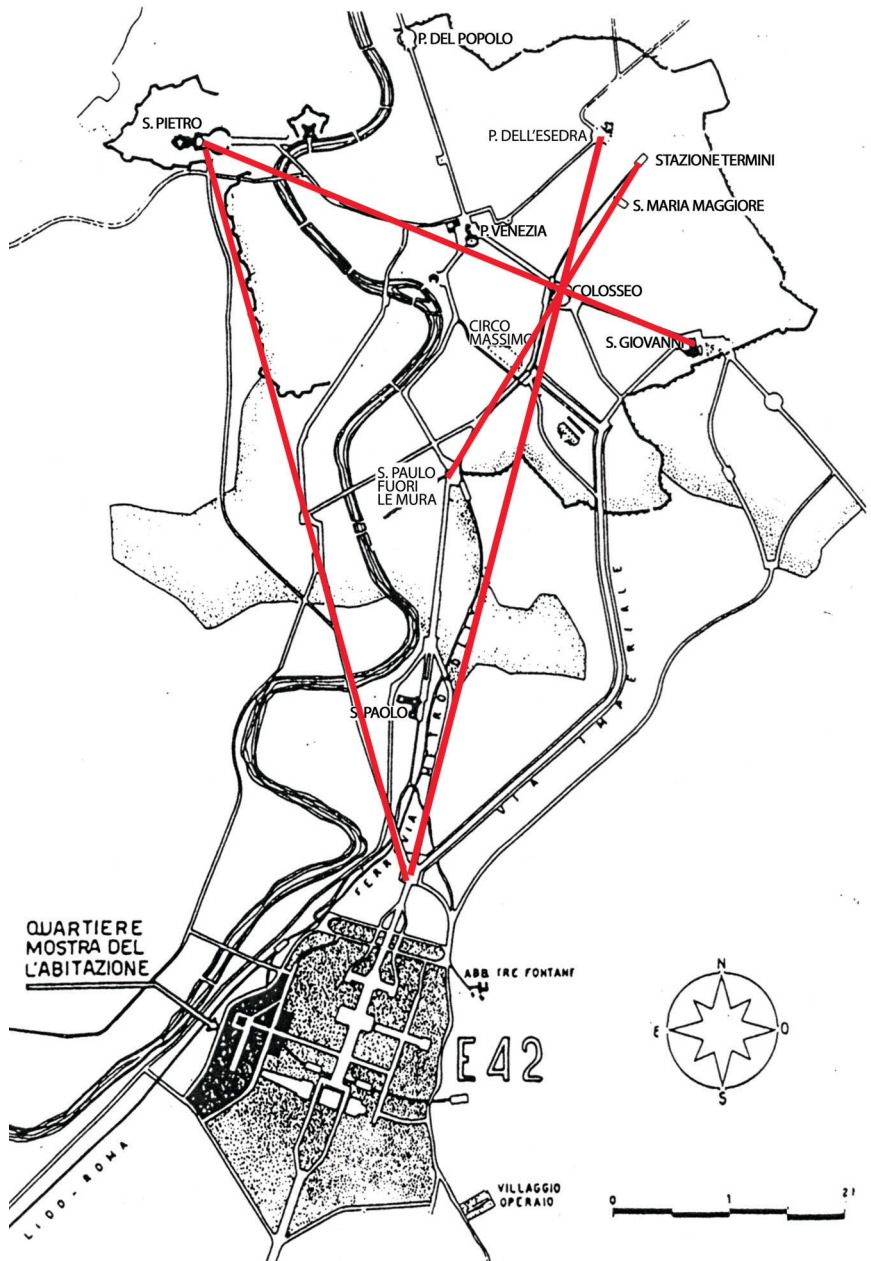


Fig. 4: EUR in relation to central Rome (after plan from *Capitolium*, 1939).

gate or a gate to heaven. This is all that remains of the villa built by a leading seventeenth-century alchemist, marquis Massimo Palombara da Pietraforte in 1655-1680. The gate, one of originally five, is decorated with cryptic geometrical diagrams and obscure inscriptions.

The Piazza Vittorio Emanuele II is axially connected to the Piazza S. Maria Maggiore, from which another axis leads to another project by Koch, the Piazza Esedra or Piazza della Repubblica (1885), outlining the exedra of the Baths of Diocletian. Other new axes were opened from S. Maria Maggiore and from the Piazza Vittorio Emanuele II to the Lateran basilica. The central axis of the Piazza della Repubblica, in turn, leads to the Vittoriano at the Piazza Venezia (Fig. 3). What Mussolini's architects added was a major avenue from the Vittoriano to the Colosseum, covering up much of Trajan's Forum.

The celebration of the Colosseum was imperative, however. Ever since the early Christians, the Flavian amphitheater had been seen as a symbol of pagan Rome. After assassinating his co-emperor Maxentius in the early fourth century, the first Christian emperor, Constantine the Great, initiated a building program intended to exploit and transform the meaning of this massive amphitheater. The central elements are the four major basilicas of Rome: S. Giovanni in Laterano, S. Pietro in Vaticano, S. Paolo fuori le mura and S. Maria Maggiore. Their siting is not accidental.

A line drawn from St. John Lateran's Archbasilica to St. Peters in the Vatican cuts through the Colosseum parallel to its long axis, follows the ancient Via Sacra past the Basilica of Maxentius, and also passes through the Campidoglio. A line drawn from St. Paul's Outside the Walls to the Colosseum will intersect the first line at a right angle; if continued to complete a cross, it will reach the fourth major basilica, originally constructed by Liberius and replaced in the fifth century by Santa Maria Maggiore at a nearby location. The strategic placement of the early Christian basilicas in Rome could be interpreted as a literal reconstruction of Roma quadrata diagram, or as an attempt to sacralize the center of the pagan world and transform the trivial games of gladiators into the sacrifice of martyrs by forcing the figure of the cross over the Colosseum. To project the sign of the cross on the Colosseum is entirely reasonable because it means applying the shape of a Roman instrument of torture (which Christians had recently adopted as their symbol) to the arena for bloody Roman games (where martyrs were assumed to have been slaughtered) in order also to claim it as a monument to the Christian faith.

In the seventeenth century, Bernini returned to the thematics of the Colosseum as he designed Piazza S. Pietro. His original task was to design a magnificent public space before the church and around the Egyptian obelisk standing in front of it. The obelisk had been brought to Rome by Caligula who wanted to outshine Augustus. In medieval lore, Caligula's obelisk had been associated with both imperial Rome and Christianity. It was said to mark the spot where Julius Caesar had been accosted by an astrologer warning him of his assassination; the bronze

ball on top of the obelisk was assumed to hold the ashes of Caesar. Later, Saint Peter was supposed to have been crucified beside the obelisk in Nero's circus and buried close by. By relocating the obelisk, exorcised and surmounted by a cross, to the center of the square before the basilica, Pope Sixtus V wanted to eradicate the memory of the superstitions of antiquity by raising the greatest footing ever for the Holy Cross. He commissioned Domenico Fontana with the task, but unfortunately, the architect placed the obelisk slightly off the central axis of the basilica, and the square needed to be redesigned so that this error would not be visible. Continuing the axis of insignificant side streets and a line drawn from a corner of the Vatican palace, Bernini derived his design with methodical precision. The dimensions of his square are very close to those of the Flavian amphitheater, even though the ancient structure is close to an ellipse in shape while Bernini's design is based on the mystical diagram of vesica pisces – the same diagram that Michelangelo applied in the design for the Campidoglio. To make the connection to the Colosseum even clearer, Bernini had his square paved with stones removed from the ancient monument.

In the early 1930s, Piacentini and Muñoz applied the same diagram to redesign the Piazza Venezia. In fact, they projected the plan – both the shape and the exact dimensions – of the Piazza San Pietro onto the different location, just like Koch had recreated the outline of Diocletian's baths in the Piazza della Repubblica. Thus, the Vittoriano appears as the third colonnade of the Piazza S. Pietro, the part that Bernini had been unable to realize.

The usual suspicions

In 1930 Siegfried Kracauer wrote of “spatial images” [*Raumbilder*] as the dreams of society that can be deciphered in the manner of hieroglyphs.⁴ Similarly, Theodor W. Adorno and Max Horkheimer suggested that art and architecture divulge repressed information about society's values, even those that are otherwise concealed; in short, they record the unconscious historiography of society. More elaborately, René Huyghe wrote in 1939 that

...art is for the story of the human societies what the dreams of an individual are for the psychiatrist ... Many think of art as a mere diversion, a thing that is purely marginal to the real business of life, they do not see that it contains the most honest confessions, confessions that have within them the least element of calculation and must therefore be accounted exceptionally sincere. The soul of an age as here revealed no longer wears a mask...

All of these suggestions derive from Freudian psychoanalysis. In his book *Freud and Philosophy*, Paul Ricoeur grouped the founder of psychoanalysis together

with the philosophers Karl Marx and Friedrich Nietzsche as representatives of the “school of suspicion”. In his Interpretation of Dreams, Freud starts from the assumption that the conscious mind, under pressure from the super-ego, must always disguise the true impulses coming from the id.⁵ Only through analysis can the truth be uncovered at those moments and in those places, such as dreams and mistakes, where the censorship occasionally fails. He distinguished between the manifest content, the dream-stories we remember, and the latent content, the real “dream-thoughts”. The dream-work converts the forbidden and thus necessarily latent dream thoughts into the manifest, permitted dream-stories by a series of mental processes, such as condensation and displacement, the two mechanisms by which the repressed hides itself. In condensation, several dream-thoughts are combined into a hybrid image; in displacement, the forbidden dream-thought is transferred into something quite different and yet in some way alike. What is essential to Freudianism is that the explanations must be deterministic: not even phantasies, dreams, or mistakes are unmotivated. Actually, they are overdetermined: there is more than one reason for everything.

Since the conscious mind tries to hide the truth, Freud concentrates on those elements that escape the consciousness, in particular those that apparently make no difference. He explains that “we have found that the smallest, most insignificant and most uncertain components of the dream-content invited interpretations no less emphatically than those which were distinctly and certainly contained in the dream. (...) the most insignificant features ... are indispensable to interpretation. ... what other writers have regarded as arbitrary improvisations, we have treated like a sacred text.”⁶ While psychoanalysis foregrounds insignificances, it tends to dismiss prominent things as mere rationalization, something secondary.

Freud himself mentions in his famous essay “The Moses of Michelangelo” a source of inspiration: the methods developed for art connoisseurship by Giovanni Morelli. A nationalist who participated in a conspiracy to liberate Italy from the oppressive Austrian rule, Morelli was honored in 1860 by King Victor Emmanuel who named him a citizen of the Sardinian kingdom. The following year Morelli was elected to the first free Italian parliament and became a senator in 1873. Later he became famous as an art historian, publishing his writings under two pseudonyms, Ivan Lermolieff, an anagram of his real name, with a Russian ending, and Johannes Schwarze, a German translation of the former. His contribution to art scholarship was a new method of attribution. As art collecting became popular among the nineteenth century *haute bourgeoisie*, it became crucial to recognize the original from the fake and to determine when and by whom a particular work was made. To develop a reliable method of identification, Morelli chose to focus on the way hands (or ears) were painted and to pay less attention to iconography and composition (Fig. 5). Because such details were too trivial for the client and too automatic for the artist, they were the most reliable ways of deciding the attribution of a work. Morelli effectively inverted

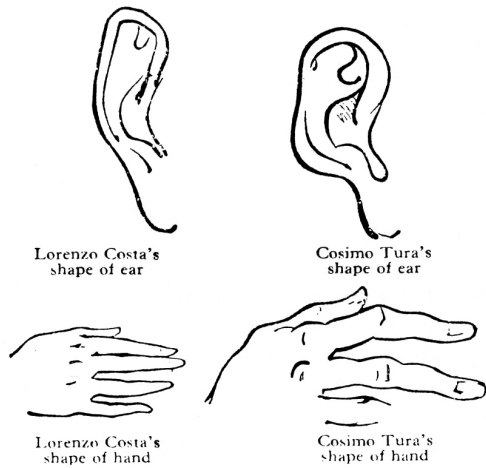


Fig. 5: Illustrations of ears and hands by Giovanni Morelli (1892).

the categories of the original painter and the client: what was primary for them was secondary for him and vice versa. In Freud's view: "It seems to me that his [Morelli's] method of inquiry is closely related to the technique of psychoanalysis. It, too, is accustomed to divine secret and concealed things from despised or unnoticed features, from the rubbish-heap, as it were, of our observations."⁷

Another famous exponent of a similar method was fictional: Sherlock Holmes shared Freud's interest in the detail as well as his passion for cocaine. In the stories by Conan Doyle, Holmes also champions the use of fingerprints as an identifying device, echoing Morelli's focus on hands. The method of fingerprinting was developed by positivist, physiological criminologists in the late 19th century. The major theorist of physiological criminology was Cesare Lombroso who claimed that the causes of crime in the final analysis are to be found in atavistic heredity. Thus he claimed that anatomical deformities, such as low foreheads, large jaws, high cheekbones, upturned or aquiline noses, baldness, long arms as well as other markings on the body, including tattoos, are reliable indicators of criminal tendencies.

In 1902, Lombroso crowned this theory by publishing a study, "The Last Brigand", that focused on a recently arrested Calabrian outlaw, Giuseppe Musolino, also known as the Brigante Musolino or the King of Aspromonte.⁸ Celebrated by the locals as a second Robin Hood, Musolino corresponded with King Vittorio Emanuele III on the necessity of social reforms and appealed to him unsuccessfully for pardon. Lombroso concluded that Musolino was halfway between a "born criminal and a criminaloid," and made him the archetype of an Italian "Southern type race," as opposed to a "Northern type race".

One of Lombroso's Northern followers was Adolf Loos who argued that tattooing and every other kind of ornament are atavisms and thus signs of cultural degeneracy, and concluded that ornament in architecture constitutes a crime. In his essay "Ornament and Crime" he maintains that "the nomadic herdsmen had to distinguish themselves by various colors; modern man uses his clothes as a mask."⁹ According to Loos, a modern man must dress in a modern way, and "One is modernly dressed when one stands out the least; then the outward appearance becomes a mask of individuality." The next generation of architects, including the Swedish functionalist Uno Åhren, drew the logical conclusion of Loos's theory: modern architecture is at its very best when it becomes invisible.

Gazes

But modernity itself is premised on visibility, as Michel Foucault had argued. In regards to what the fixation of the "gaze" actually means, however, Foucault associated it with institutions: "The clinic was probably the first attempt to order a science on the exercise and decisions of the gaze. ... the medical gaze was also organized in a new way. First, it was no longer the gaze of any observer, but that of a doctor supported and justified by an institution."¹⁰

For Foucault, modernity was defined by an invention of the Enlightenment, the Panopticon, an ideal prison designed by Utilitarian philosopher Jeremy Bentham on the basis of his brother Samuel's earlier design for a school.¹¹ The concept is simple: a circular configuration consisting of a central watchtower which organized a perimeter of prisoners' cells. The cells were backlit from the outside by what in Samuel Bentham's version looks like a perfect functionalist ribbon window (Fig. 6). On the inside, facing the tower, the cells have no wall but only bars. Thus, everything in the cells is visible to the warden in the tower. The ingenuity of the scheme lies in the idea that the windows of the tower should not have curtains. Visual contact is not reciprocal but works in one direction only. The warden can always see the prisoner; the prisoner never sees the warden and

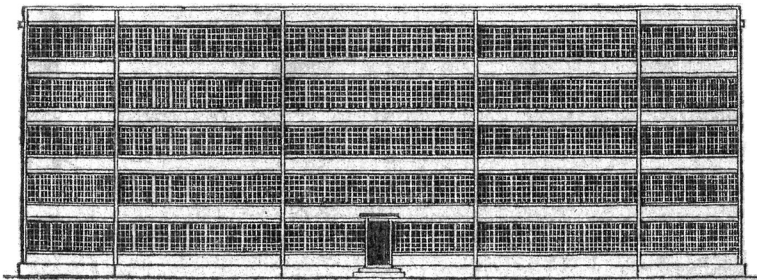


Fig. 6: Samuel Bentham, building for an industry-house establishment, for 2000 persons of all ages, on the panopticon principle, 1787.

can never count on not being directly observed by him. As a result, the prisoner interiorizes control and becomes his own warden.

When Foucault declared the panopticon to be the paradigm of modernity, he may have underestimated the contemporaneous invention of the panorama. Jeremy Bentham started promoting his concept of the panopticon in 1787, the same year that Robert Barker patented his invention originally given the French name *La nature à coup d'oeil* [Nature at a glance] and later renamed *panorama*. Both building types show a similar architectural configuration: they were rotundas with the viewer occupying the center. However, they functioned in very different ways. While the panoptical prison captures the essence of the surveillance society, the panorama embodies the attitude of the entertainment society. Thanks to Barker, Leicester Square in central London grew into a hugely popular entertainment center, as the world was introduced to the first mass medium.

Barker's invention helped to induce a new way of looking that emerged in the nineteenth century. This reifying and totalizing manner of looking, recently dubbed "the tourist's gaze," strives to grasp the city or the landscape as an object, comparable to a work of art. As Walter Benjamin observed in his analysis of the growth of Paris, the panoramas signaled a revolution in the relation between art and technology. The town dweller even made an attempt to bring the countryside into the city: "In the panoramas the town was transformed into landscape, just as it was later in subtler way for the *flâneur*."¹² Such a perception is only possible, however, with a certain kind of alienation of the viewer from the object, as well as a cultural framing. As a result, the touristic gaze involves experiences that are typically visually objectified or captured through conventional representations that allow them to be endlessly reproduced and recaptured.¹³ The concept of the gaze also highlights that looking is a learned ability.

The touristic gaze also influenced urban design in the nineteenth century. Marshall Berman traces the visual obsession in Baron Haussmann's construction of Parisian boulevards: "...great sweeping vistas ... with monuments at the boulevards' ends, so that each walk led to a dramatic climax." Berman maintains that "these qualities helped to make the new Paris a uniquely enticing spectacle, a visual and sensual feast." and that "after centuries of life as a cluster of isolated cells, Paris was becoming a unified physical and human space."¹⁴ The axes that Mussolini's architects cut through the ancient fabric of Rome attempt to achieve something similar to the Parisian boulevards: isolate and frame the monuments that testify of the moments of Rome's grandeur, and impress the visitor. Of course, as an ancient pilgrimage center, Rome had been organized according to touristic principles much earlier than Paris, for example. The program of connecting the most important monuments with straight boulevards (and marking them with obelisks imported from Egypt) was already started by Pope Sixtus V in the late sixteenth century.

Today the economy of Rome depends to a very large extent on the tourist trade, which, however, has been marred by a high level of petty as well as violent crime and recently also by a rise in terrorism. Officials advise tourists to try to look like locals and to trust no one. Should one nonetheless become a victim of a pick-pocket or even worse, tourists are told to turn in their reports at the Foreigner’s Branch of the main Police station (Ufficio Stranieri della Questura di Roma), on Via Genova, half way between the Vittoriano and the Piazza della Repubblica. As this location is far from the main concentrations of tourists, however, the task in the studio is to design a small police station for tourists at the corner of Via delle Botteghe Oscure and Via Celsa in the center of Rome (Fig. 1), close to the Largo Argentina, the Pantheon and the Piazza Venezia.

In addition to a lobby accessible from the street, spaces have to be provided for a staff of four policemen, four cells for detainees and four emergency hotel rooms for victims of crime (i.e. tourists who have lost their money and identity documents), a breakfast room, sanitary facilities, etc. In effect, then, the small building will house a hybrid program for three kinds of users, being at once a police station, a prison and a hotel – that is, a panopticon and a panorama.

The association of aggressor and victim is a central element in the Western cultural tradition, as we can see, for example, in etymology. Together with “guest”, “host” and “hospital”, the word “hotel” derives, via the Latin *hospes*, “guest/host”, from the Indo-European *ghotis*. From the same root we also get the Latin *hostis*, “stranger” or “enemy” (becoming “host” or army and “hostile” in English) and *hostia*, “sacrifice”, “victim” (in English “host”, as in the bread of the Eucharist).

The students participating in the TU Wien studio “Rome or Death” are advised to approach the design task with a method adapted from Freud and Loos. This involves the reversal of what is considered the primary vs. the secondary in architecture. In this studio, the detail should come before the whole, ornament should dominate over the thing ornamented. Moreover, the approach implies the rejection of organic unities in favor of Deleuzean bodies-without-organs. This means that a fragment defines a variety of possible wholes, functioning in many contexts simultaneously so that the whole is an effect of the fragment.

Once we rid ourselves of the fiction that architecture is about creating closed unities, such as we might imagine pieces of sculpture to be, it is possible to allow for a dispersion of architectural elements over a discontinuous spatial field. In other words, an architectural intervention, including any building, is only a node (or series of nodes) in a large number of networks, whether electricity networks, water supply, circulation and transportation, etc. Functionally, no building is ever self-sufficient; hence, the program can be divided over many spatial locations. The hotel rooms of the crime victims are part of the touristic network of Rome; the police station connects to other systems of control from surveillance cameras to traffic signs; the cells belong together with other heterotopias, including prisons,

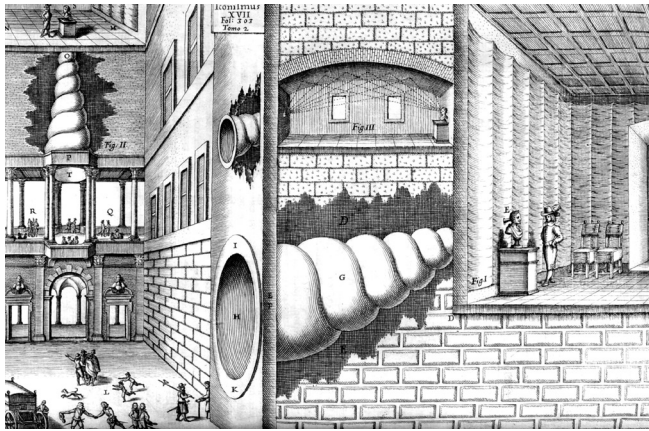


Fig. 7: A plan for a piazza-listening device: the clamor from the piazza below are taken by the horn up through the mouth of the statue in the room above. From Kircher's *Musurgia Universalis* (1650).

hospitals, mental asylums and so on.

As the hybrid program breaks the small building down into several relatively independent elements, there is also no necessity that the facades reflect the interior organization of the building, as the facades usually belong to other contexts than the interior function. The design can be dissolved into many atmospheres that have independent justifications and may reflect the ambiances of the surrounding city, for example as defined by the Situationists.

Furthermore, the elements used to create various atmospheres or ambiances need not be exclusively visual. An architectural experience need not be instantaneous in the way that formalist critics used to think of the aesthetic experience of paintings, for example. Rather, architecture can unfold over time and use various registers and sensory modes to do so.

Although the programmatic demands of a prison/hotel call for a manipulation of visibilities, one should not forget that many controlling mechanisms involve covert electronic and acoustic monitoring. This also is something of a Roman tradition. In his 1650 *Musurgia universalis*, Athanasius Kircher – a friend of the alchemist Palombara – presented a curious acoustic machine for espionage and the staging of a miraculous event. Private conversations and any other sounds from a piazza next to a palace were funneled by horns (that rather resembled gigantic snail shells cutting brutally through the buildings) to the mouth of a statue in a room on the piano nobile level where the master would be able to eavesdrop while sat in great comfort (Fig. 7).

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THE SCHOOL BENCH AS DISCIPLINARY APPARATUS

Sonja Hnilica

The famous Austrian orthopaedic surgeon Adolf Lorenz began his 1888 book *Die heutige Schulbankfrage* [Today's School Desk Question] with the remark that “our school years could also be called sitting years”.¹ During the second half of the 19th century, for the first time in history, practically the entire population in many European countries spent a large part of their childhood and youth *sitting*. More precisely, children spent their time sitting in very special benches, which were the subject of intense and interdisciplinary professional debate among pedagogues, medical doctors and architects. Wilhelm Buchner, a renowned pedagogue and headmaster of a school in the city of Krefeld, stated in 1868 that the school bench was a “mechanical device [...] to which our children from the ages of 6 to 16 are attached to for an average of 28–30 hours per week”, and “on the health-giving construction of which the eyesight, the strong chest, and the erect growth of hundreds of thousands of children depend.”²

The school bench is a pan-European phenomenon of the “long 19th century”. Prussia (and from 1871 onwards the German Empire) had built up a state school system whose uniformity was unprecedented until then. One of the most important innovations was the actual enforcement of compulsory schooling, which theoretically had existed for a long time, resulting in a literacy rate of almost 100 percent. In two waves, 1820–35 and 1865–80, a new type of school building was established throughout the country.³ A central architectural component was the furniture, which had been developed during decades of scientific research. In 1869 B. Mader, a school headmaster from Olomouc, due to a lack of specialist literature, had to rely mainly on his own experiments to find suitable benches for his school. In the 1870s ophthalmologist Hermann Cohn from Breslau travelled to three world exhibitions in order to study exemplary school benches.⁴ By the end of the century, the teacher Leo Burgerstein and the physician August Netolitzky listed already more than 100 publications on the topic in their *Handbuch der Schulhygiene* [Handbook of School Hygiene].⁵

The school bench, so I argue in the present essay, is the crystallization of a disciplining school architecture. The essay summarizes my research on school furniture, which developed already from my diploma thesis supervised by Kari Jormakka at Vienna University of Technology.⁶

Regarding the disciplinary classification, the subject has always been “sitting on the fence”, so to say. In architectural historiography the school furniture

has always been considered a marginal phenomenon, probably because it is not conceived as a question of art (similar to the case of the bicycle shed, as famously defined by Nikolaus Pevsner).⁷ An exception, however, is Thomas A. Markus' book on *Buildings and Power* (1993), which discussed schools among other building types, such as prisons or libraries.⁸ On the part of the other disciplines (e.g. education, design and medicine), several studies on the history of the school bench have previously been published.⁹ In the course of the “material turn”, school furniture has been the subject of increased attention in pedagogical studies in recent years.¹⁰ And of course, it is Michel Foucault's seminal book *Discipline and Punish* (1975) that has fundamentally shaped the view.¹¹

The correct writing posture

A brief look further back in the history of the school is necessary to fully appreciate the innovations of the 19th century. In the centuries before – and in rural elementary schools well into the 19th century – there was no specific school architecture. Usually, the main room in the teacher's own house acted as the classroom. We can see that in a turbulent village school scene, portrayed in around 1650 by the Dutch painter Jan Steen. (Fig.1) Although the chaos may not fully correspond to the historical facts, it is nevertheless clear that the methods of mass instruction,



Fig. 1: *School for boys and girls*, by Jan Steen, c. 1650.



Fig. 2: "Correct writing posture" advertisement from around 1962.

such as age-group classes or the frontal teaching method, were still unknown. Along the walls there are a number of rough timber tables and benches, much like in a tavern. Girls and boys of all ages are writing, sleeping, playing or even scuffling, while a few others are being instructed. The children stand, sit, kneel or lie – on the floor or at the tables, on benches or even barrels. This freedom of the sitting posture goes back to centuries-old habits, as can also be shown in other pictorial documents.¹²

200 years later, such random sitting was no longer acceptable. The aforementioned teacher, Buchner, defined the correct writing posture as follows:

We move the chair under the table so that the front edge of the chair comes to rest under the edge of the table, and if we want to lean against the backrest when writing, then even further. The upper leg rests completely up to the bend of the knee, the lower leg descends vertically downwards, so the whole foot is on the floor. The forearm lies completely or almost completely on the table. The upper body remains erect, parallel with the naturally straight edge of the table; the back rests on the backrest; only a slight bending of the neck is necessary to support the downward glance of the eyes. The result is a completely comfortable, non-fatiguing writing position that always remains erect.¹³ (Fig. 2)

The activity of writing was analyzed to the smallest gesture. As Burgerstein and Netolitzky explained:

When writing, the hand should be placed in such a way that the palm of the hand is only slightly inclined

to the left. The outer edge of the palm does not touch the writing surface; the hand rests on the outer edge of the nail member of the little finger, which should be slightly bent, just like the ring finger resting on it, on which the middle finger, and the whole group of three fingers guiding the penholder, should rest. The forefinger forms a very flat bow without bending.¹⁴

Foucault described the changes in modern body perception: “Good hand-writing [...] presupposes a gymnastics – a whole routine whose rigorous code invests the body in its entirety, from the points of the feet to the tip of the index finger.”¹⁵ The perfect manipulation of the individual parts would lead to the best possible overall result, as with a mechanical apparatus. The gestures, researched in detail and then carefully practiced, were subsequently described as “normal” or “organic”. Once a “right” posture had been defined with such precision, any deviant posture would be perceived as “wrong” or even harmful. Thus, the focus of calligraphy was less on the product, the writing, and certainly not on the content of the written document, but on the activity of writing itself.

The perfect construction

From the middle of the 19th century onwards, the matter of the school bench became a central concern of school hygiene. The requirements described above gave rise to decades of debate about the correct dimensions of the school bench, from the inclination of the desktop to the height of the footboard and the design of the backrest. If one considers the actual teaching practice, a constructive dilemma becomes apparent: for sitting upright, the front edge of the seat had to be pulled under the table. But, as the children had to stand up every time they replied to the teacher, as well as greeting the teacher when he or she entered the room, to sing, etc., there had to be a small distance between the table and the seat, otherwise the child stood virtually trapped in the bench with the knees bent. Any fixed bench-table combination cannot be equally suitable for standing *and* sitting. The simplest solution, so obvious from today's point of view, to use separate tables and chairs, was not even considered.

Everyone feared that the children would not be reasonable enough to use moving chairs.¹⁶ Instead, the school hygienists added rather complicated folding and sliding mechanisms to the bench. (Fig. 3) They invented foldable desks and swivel, pendulum and sliding seats.¹⁷ The latter were pushed back with the backs of the knees when standing up and had to be pulled forward again when sitting down (when you forgot that, you fell down).¹⁸ Hittenkofer's desk had a tabletop that also served as a backrest for the person in front.¹⁹

Interestingly, many of those mechanical components were also used for a new type of office furniture. In 1853, the first resilient office chair for dynamic sitting was patented in the USA.²⁰ Constant small shifts in balance should keep the blood

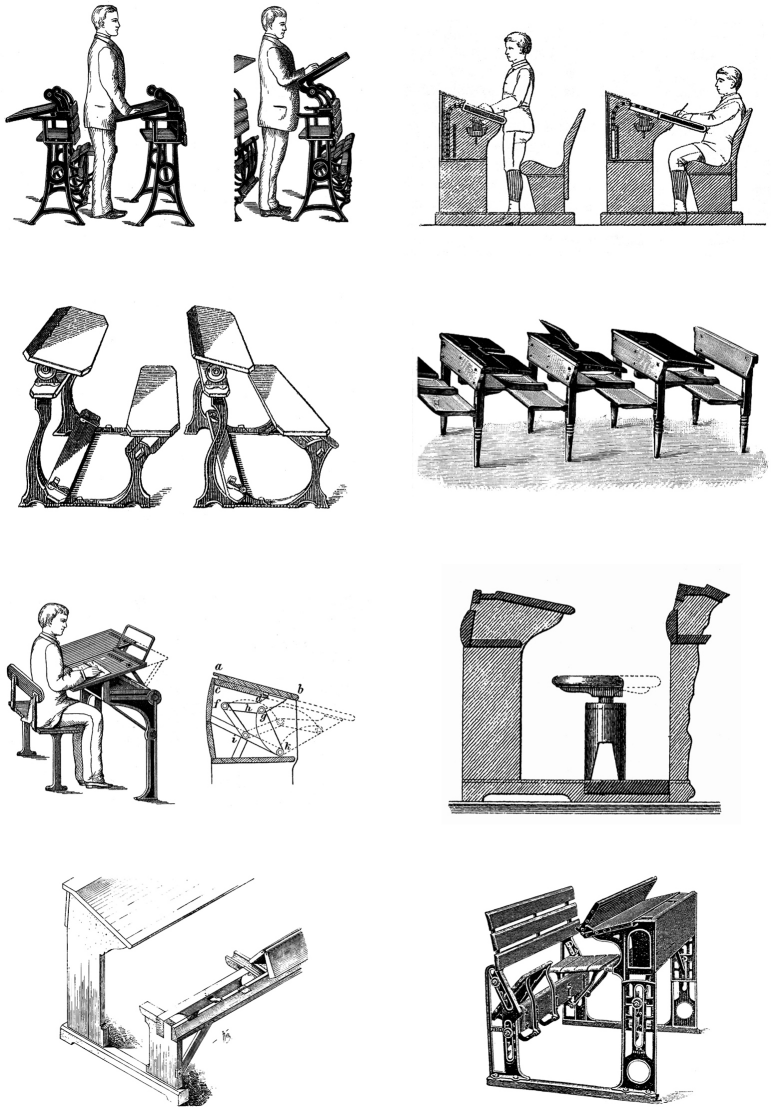


Fig. 3: Late 19th mechanical school benches (from left to right and top to bottom): bench by Kottmann with pendulum seat and foldable table top; pull-out desk by Küffel; folding bench by Hittenkofer; centre-rail bench with folding desk by Zahn; oscillating table top by Schlimp, 2nd prize of the "Wiener Schulbankkonkurrenz 1893"; rotating seat by Vandenesch; folding bench "Columbus" by Ramminger & Stetter; size-adjustable bench by Munzinger.

circulation going. In around 1900, motionless sitting was rejected as a production-inhibiting principle in offices in the USA. While movable seating spread quickly also in European offices, “sitting still” continued to be propagated in schools.

However, the mechanical benches with their cranks, levers, joints and springs were not up to the stresses and strains of everyday school life. The sliding mechanism of the so-called Paul’s school bench, that was widely used in Vienna around 1890, was derided by Lorenz as a “Polterkasten” [“rumble box”]:

The pushing down of the bar, which must precede the pushing back of the desk, always causes some difficulty; the child must push harder and harder until the bar then moves down with a sudden jerk and the iron weight at the other end of the lever strikes the underside of the desk with a thunder-like bang, which is amplified many times by the resonance of the desk box. [...] The corridors of a school building, in which Paul’s benches are in use, echo from time to time from this thunderous noise.²¹

It turned out to be an immobile construction suitable for all needs. The German architect Wilhelm Rettig designed two-seaters rather than long rows. Instead of getting stuck while standing up, the child could step out to the side and stand in the aisle. A raised footrest made this movement even smoother. (Fig. 4) With Rettig’s invention, the discussion about movable benches virtually came to an end. The Nuremberg Hygiene Congress of 1904 approved the new school bench standards: “1. the bench system shall be a two-seater. 2. the system should have no moving parts. 5. standing up shall take place outside the bench. [...] 9. the bench and table shall be made of one piece. [...]”²²

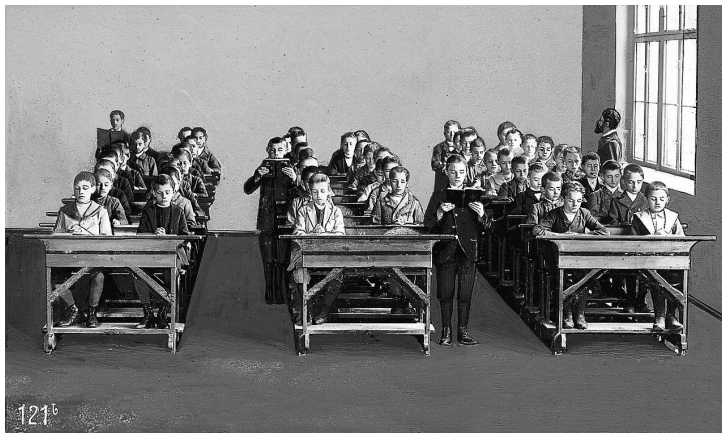


Fig. 4: School class furnished with Rettig benches, which make it easy for the pupils to stand up, c. 1900.

The new two-seaters took more space (because of the additional aisles) , but as a positive side effect the children were much more isolated and exposed: “Every child can be reached directly by the teacher [...] at any moment the teacher can be at any place, overlooking everything.”²³ The design met the medical as well as the pedagogical requirements. It was backed up with further scientific arguments, because it seemed very hygienic to lift the pupils away from the floor, which was associated with dirt and invisible lurking bacteria.²⁴ However, the footboards created new hygiene problems because they made it impossible to wipe the floor properly. The Rettig benches were therefore hinged to the floor and could be folded to the side. The built-in ink wells had a gooseneck top so that the ink did not leak when the desks were folded 90° during cleaning.²⁵

A further problem was the correct size adjustment. Exactly fitting dimensions seemed to be necessary to enforce the correct writing posture. Furniture with movable parts that “grew with the child” (as with the Munzinger bench in Fig. 3) had proven too expensive and was soon used only for home schooling by wealthy middle-class families. For the larger part of the school desks, schoolchildren were measured in large medical campaigns.²⁶ The data helped to define size standards, so that all classrooms could be equipped with benches in three different sizes, suitable for the size range of the respective age cohort. In the standard handbook for architects, the *Neufert*, which has been published in 42 editions since 1936, such standardized bench sizes can still be found up until the 1970s.²⁷

Size standards prepared the ground for the industrialization of furniture production. Traditionally, carpenters had manufactured school furniture locally. Towards the end of the 19th century, however, industrial production became increasingly widespread. In Germany, the “Rettig school bench”, patented in 1893 and manufactured by P. Johannes Müller & Co. in Berlin, became the best-selling product, with several million seats manufactured. It was exported all over Europe (and was in use in many German towns up until the 1960s). Within a few decades, school equipment was standardized to the highest degree.

Bench and body

The introduction of size standards also changed the perception of the children’s bodies, as the new data was also used for medical purposes. The calculated average, a mere statistical accumulation, was declared the norm and thereby defined the “normal” body and the “normal” growth development. All deviations were subsequently regarded as pathological or contrary to nature. According to Foucault, standardization or “normalization” is one of the strongest mechanisms of power in modernity: “In a sense, the power of normalization imposes homogeneity; but it individualizes by making it possible to measure gaps, to determine levels, to fix specialities and to render the differences useful by fitting them one to another.”²⁸

In 1858, the German orthopaedic surgeon Daniel Gottlob Moritz Schreber compared children to young plants, which the gardener had to help to grow

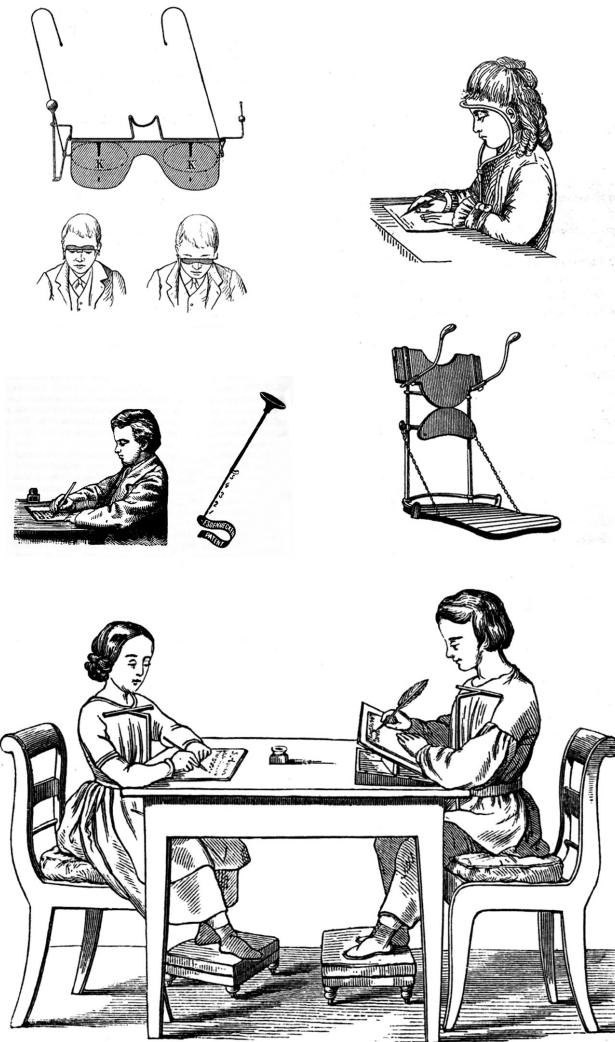


Fig. 5: Nineteenth century educational apparatuses (from left to right and top to bottom): *Brillengeradhalter* by Müller; *Geradhalter* by Kallmann; chin rest by Soennecken; *Geradhaltesitz* by Kuhn; *Geradhalter* by Schreiber.

straight. He introduced a number of apparatuses that were intended to make children's bones straight and symmetrical. The most famous was the "Geradhalter" [Straight holder], an iron rod that was screwed to the tabletop and prevented the upper body from bending over while writing.²⁹ Numerous other educational devices were constructed, for example the "Brillengeradhalter" [Spectacle straightener] by Müller from Basel: when the child bent his head downwards, flaps made of black celluloid fell down and blocked his view.³⁰ (Fig. 5) In this sense, the school desk can also be seen as an orthopaedical corset into which the child's body was "literally squeezed", as the Swiss School Archive stated in 1888.³¹ Indeed, the aforementioned Lorenz, who is quoted at the beginning of this essay, is nowadays regarded as a pioneer in orthopaedics, because of the procedures he developed to correct anatomical deformities of the bones without surgical intervention, for example by using stretching bandages or plaster splints.

Beyond the medical side, there is also the pedagogical dimension: as an educational apparatus, the bench offered the possibility to manipulate the bodies of the children without getting too close. At that time, any form of bodily contact seemed suspicious, as it might have been perceived as a sexual stimulation. The apparatus, placed between the educator and the child, made it possible to evade the taboo of physical touch. In order to protect children from the dangers emanating from their own bodies, a gap was left open under the tabletop, so that the teacher could observe any possible clandestine behaviour. According to the school building regulations of 1894 for Carinthia in southern Austria: "hiding the hands under the bench or in the pockets, as well as any inappropriate or indecent position of the legs" was not to be tolerated.³² The correct posture should therefore not only ennoble the body, but also preserve the purity of the mind. Throughout the 18th and 19th centuries, masturbation was blamed for a multitude of serious physical and mental damages.

In the new two-seaters, the children were permanently exposed to the teacher's gaze and could hardly approach the other children. The separation of the sexes and the dress code helped to further sexualize the classroom.³³ Foucault pointed out that the supposedly prudish bourgeoisie did not repress sexuality in an unspoken way, but on the contrary, constantly addressed it. Schools pretended to be sex-free spaces, although everything actually had to do with sex: "The builders considered it explicitly. The organizers took it permanently into account. [...] The spaces for classes, the shape of the tables, the planning of the recreation lessons, [...] all this referred, in the most prolix manner, to the sexuality of children"³⁴

Furthermore, the school bench served as an instrument for special exercises. The British architect Edward R. Robson published a "code of drill" for the school bench in his widely read book *School Architecture* from 1874.³⁵ (Fig. 6) The combination of commands and movements he depicted is derived directly from military drill guides. For students and soldiers alike, it was not a matter of understanding, but rather of perceiving a signal and reacting to it immediately according to a given code. By means of exercises performed repeatedly, the bodies of the students

(1)—“Return.”
At the word “Return,” the hands should be raised to grasp the slate.



269.—“RETURN.”

(2)—“Slates.”
At the word “Slates,” the slate should be smartly lifted and placed in the groove in front of the desk without noise. The hands should then be lowered.



270.—“SLATES.”

(3)—“Lift” (or “Raise”).
At the word “Lift,” the edge of the flap should be grasped.



271.—“LIFT” (OR “RAISE”).

(4)—“Desks.”
At the word “Desks,” the flap should be raised quickly but without noise, and the hands dropped.



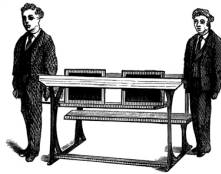
272.—“DESKS.”

(5)—“Stand.”
At the word “Stand,” the scholars should rise smartly with arms straight by their sides.



273.—“STAND.”

(6)—“Out.”
At the word “Out,” the scholar at the right end of the desk takes one step to the right and a short step to the front. At the same moment the scholar at the left end of the desk takes a step to the left and a short pace to the rear.



274.—“OUT.”

Fig. 6: “Code of drill” at the school desk, according to Edward R. Robson, *School Architecture*, 1874.

and the school desks were linked together in a very special way.

As a matter of fact, the barracks-like tone of the lessons in German schools corresponded to a political necessity, as Prussia had a very large conscription army – and as such depended on the fitness of the adolescent male population. Primary schools in particular played a decisive role in the preparation of recruits (this only concerned boys, which is one explanation among others why the education of girls was far less standardized). After the victory of Prussia against the Austrian Empire in the Battle of Königgrätz in 1866, a newspaper commentary ironically claimed that this victory was a “victory of the Prussian schoolmasters over the

Austrian schoolmasters”.³⁶ The Prussian education administration continued to nurture this statement until it became a general expression (The military defeat allegedly inspired Austria to enforce compulsory schooling).

Even beyond these strategic considerations, throughout the 19th century most lessons were structured by the rhythm of commands. Johann Ignaz von Felbiger, who under Empress Maria Theresa had completely reorganized the elementary school system in Austria, had described the principles of “frontal instruction” already in 1768:

All children must not only do the same things, but they must also do them at the same time; instead of the traditional custom of one child after another reciting like schoolmasters, they all recite at the same time. They spell, they read, write, do arithmetic, they learn by heart, they repeat and answer at the same time; in short, *they do everything together and at the same time.*³⁷

Working in the given rhythm was considered much more economical, as the teacher W. Fricke emphasized 100 years later.³⁸ This anticipated important aspects of rationalization in industrial production, later known as Taylorism, as factory work requires different skills than, for example, work in agriculture. In addition, there existed detailed rules for tidiness. Fricke defined positions for all school utensils: “On the right of the desk, the notebooks lie back to back, and next to them is the work box with the pens, etc. On the left are larger objects such as the atlas, the drawing booklet, etc.” The students should internalize the spatial order to “bring out and put away everything they need immediately without looking into the desk. *We have applied the idea of the ancient Roman camp to school life here.*”³⁹

Body and mind

The enormous attention to detail is striking in all the above quoted examples. Why this meticulousness? Apparently, a correlation is made between the posture of the body and the posture of the mind or the psyche: bad posture leads to sinful thoughts, and vice versa, while a tidy environment produces good citizens. Does this result from a simplistic equation of external and internal conditions, or is the body understood as a kind of gateway to the child’s personality? Perhaps one might speak rather of a back entrance. Body and mind cannot be understood as discrete entities in the sense that the mind lives in the body but rather, physical characteristics can be read as a condition of subjectivity. On the other hand, the body is the place of inscription of different kinds of subjectivity within the process of social formation. Pierre Bourdieu described this process as the “em-bodying of the structures of the world”.⁴⁰

Embodiments result, among other things, from the “*techniques of the body*”, a term coined by the French anthropologist Marcel Mauss in 1934. Mauss assumed that such basic things as posture and gesture are not natural, but rather learned. According to his observations, French girls, German soldiers or Maori women each had a very specific way of walking. Mauss concluded that there might not be any natural way of walking for an adult human being.⁴¹ Body techniques, such as walking, sitting or drinking, are learned through imitation and can thus assign a person to a nation (a gender, a class etc.). The American anthropologist Gordon W. Hewes recorded around 100 different sitting postures worldwide and he assigned them to different cultural groups, age groups, genders and hierarchical positions.⁴²

Embodied values are protected from being explicitly expressed or even thought, as Bourdieu has explained:

...treating the body as a memory, they entrust to it in abbreviated and practical, i.e. mnemonic, form the fundamental principles of the arbitrary content of the culture. The principles embodied in this way are placed beyond the grasp of consciousness [...]; nothing seems more ineffable, more incommunicable, more inimitable, and, therefore, more precious, than the values given body, made body by the transubstantiation achieved by the hidden persuasion of an implicit pedagogy, capable of instilling a whole cosmology, an ethic, a metaphysic, a political philosophy, through injunctions as insignificant as ‘stand up straight’...⁴³

The young nation states in the 19th century made all their citizens spend large parts of their childhood and youth in a very special sitting posture. Sitting still evoked a whole range of cultural values and national regulations. In effect, the schools taught national body techniques.

Classroom and school building

The school bench was integrated into a complex spatial context. Its dimensions and arrangement determined the dimensions of the classroom, which were then fixed in norms and decrees. The Prussian building regulations for rural primary schools of 1895 required classes for “not more than 50 children” (whereas previously it had been still common to have more than 80 children per class).⁴⁴ (Fig. 7)

The width of the classroom was to be a maximum of 6.5 metres, as determined by the width of the space per pupil plus the width of the aisles; the length of the room was to be a maximum of 9.7 metres, which is the maximum distance were one can read what is written on the blackboard. The source of natural light should come from the left so that the writing hand – only righthandedness was acceptable – would not cast a shadow. The regulations for lighting required room heights of 3.2 metres. These dimensions guaranteed the necessary volume to sup-

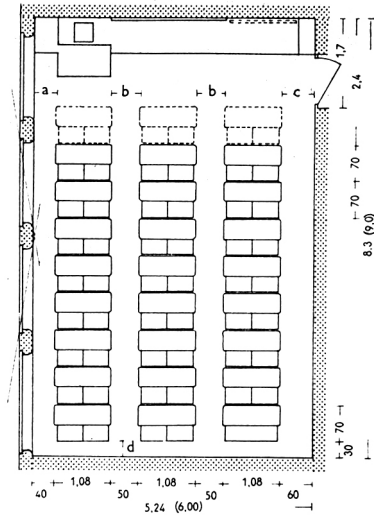


Fig. 7: Prussian guidelines for classrooms 1895.

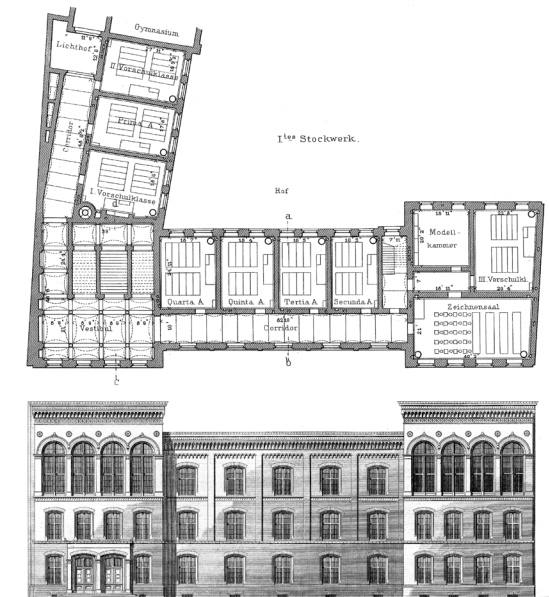


Fig. 8: Classrooms in the Sophien-Realschule in Berlin by Adolf Gerstenberg, 1865–67. Edward R. Robson discussed the example in *School Architecture*, 1874.

ply enough oxygen for all children to breathe for one hour.⁴⁵

At the front of the classroom was the raised teacher's desk and the blackboard. The teacher and the class faced each other. The classroom thus reinforced an asymmetrical balance of power through the arrangement of bodies in space and the unequal distribution of views. Michel Foucault famously analyzed these special mechanisms of power using the Panopticon as an example.⁴⁶ The Panopticon designed by Jeremy Bentham in 1787 was a circular prison with many single cells along the circumference and a central lodge to monitor all prisoners at a glance. Since the inspector in his lodge was hidden by blinds, the prisoners could not see him and, moreover, they could not communicate with each other. Since the prisoners always felt under inspection, Bentham hoped that there would no longer be any need for cruel corporal punishment, for the prisoners would permanently monitor themselves. Actually, Bentham, as a committed utilitarian, was driven by reformist intentions, and he suggested the use of such an idea not only for prisons but also for schools and factories, among others: "Morals reformed – health preserved – industry invigorated – instruction diffused [...] – all by a simple idea in architecture!"⁴⁷

The classroom differed from the Panopticon, however, in so far as it exposed the inspector rather than hiding him away, but analogies can be drawn in other respects. The teacher was free to move around the room, while the children were not. They were also not allowed to communicate with each other. Special practices, such as arbitrary punishments, helped to create the illusion of absolute power. The position of the teacher was thus constructed as godlike. The teacher seemed to be omnipresent, all-seeing, all-knowing and omnipotent, although he, of course, never was able to see everything, no matter how perfect the bench was constructed.

This power constellation was supported by symbolic components. In Austria, a crucifix and the image of the Federal President are on the wall of every classroom, representing the highest authorities. A clock and the school bell represent values like punctuality and order. On the blackboard, the teacher presented his knowledge in well-dosed portions. For the students, on the other hand, the same blackboard was the place of the humiliating ritual of examination, and the visual manifestation of their individual shortcomings. In fact, the schoolmasters and pedagogues were not particularly powerful from the point of view of society as a whole. Elementary school teachers in particular often came from the lower classes and were poorly paid. They were themselves supervised by principals and school inspectors – and a large number of laws regulated their work. But in the classroom, the teachers had all the power, including the right to assign the pupils their places. Assigning a new place to a student could be either a punishment or a reward. Special seating arrangements turned the classrooms into a kind of *tableaux vivantes*,⁴⁸ with the bad students sitting in the back and the good ones in the front. The spatial visualization of the individual performance had a sanctioning effect by publicly exposing shortcomings and successes.

School building

The disciplining system was extended in the layout of the school building, as the classrooms were lined up along a corridor. The aforementioned architect Robson, who travelled to continental Europe and the USA in the 1870s on behalf of the British government to inspect school buildings and to develop the standards for English school construction, found that Prussia had taken the lead in education because of the striking “uniformity with which one system of teaching is applied alike to all children from the youngest to the eldest.”⁴⁹ The community schools in Berlin reminded him in a positive sense of military barracks:

At the age of six, a German boy goes to an elementary school. [...] There is a series of classrooms entered from a wide corridor. He is placed in one of these, fitted with benches and desks precisely similar, but smaller than, those used by boys twice his age, and there he commences that intellectual drill which is continued till the age of fourteen. [...] the most awkward recruit will make a tolerable soldier if drilled regularly among others for a sufficiently long time.⁵⁰

The German way of schooling, concluded Robson, could hardly fail to raise the masses of a nation. (Fig. 8)

The idea of the “school class”, which was relatively new at that time, was based on the permanent division of the school community into age groups with a uniform level of knowledge. A school year thus stood for a certain amount of knowledge that had to be learned within a given time frame. Knowledge was regarded as a possession that teachers and students owned to varying degrees. The degree of knowledge was associated with a spatially defined place on the hierarchical ladder. Classrooms were passed through in a chronological sequence of school years and represented a specific position within the school hierarchy. If one had advanced to the “Oberprima”, that is, the final year of the school, one was actually a “first class student”.

In this way, the school building by means of spatial partitioning became a complex machine for monitoring, hierarchization and rewards. Spatial structures and power mechanisms overlapped to form a disciplining space. In his 1995 book *Heimlich Manœuvres*, Kari Jormakka pointed out the parallel between a timetable and the floor plan of a school building. Although the comparison may be ironically exaggerated, certain structural similarities between the spatial and temporal partitioning cannot be denied.⁵¹ A “hidden curriculum” was built into the school architecture, giving a very precise idea of knowledge, time, order and hierarchy. The architecture of the school helped to create disciplined bodies that could at any time fit into more complicated apparatuses to function as part of a larger machine.

The end of the school bench

Although the idea of the immobilized body dominated 19th century pedagogy, other discourses existed at the margins. While the school bench, as Foucault argues, can be understood as a prime example of the panoptic efforts of the Enlightenment, the ideal of a body in motion was formulated at about the same time. As early as 1762, Jean Jacques Rousseau wrote in his ground-breaking work *Emile, or Education*:

Instead of keeping him [the boy Emile] mewed up in a stuffy room, take him out into a meadow every day; let him run about, let him struggle and fall again and again, the oftener the better; he will learn all the sooner to pick himself up. The delights of liberty will make up for many bruises.⁵²

With Rousseau as an example, in the course of the so called *Reformpädagogik*, the paradigm of sitting still was questioned in the early 20th century. Children were seen as personalities who were supposed to blossom, rather than being forcibly moulded into uniformity. In 1909, the famous Italian doctor Maria Montessori argued that the actual orthopaedic effect of the benches was to deform healthy born children into hunchbacks. And even worse, sitting still on the school bench educated children to slavery.⁵³ Montessori developed an environment that should be comfortable and liberating to facilitate her new teaching methods. Instead of fixed school benches, she furnished her schools with normal tables and chairs, appropriately light and small.⁵⁴ (Fig.9) She explained:

If by an awkward movement a child upsets a chair, which falls noisily to the floor, he will have an evident proof of his own incapacity; the same movement had it taken place amid stationary benches would have passed unnoticed by him. [...] The ability to move which he acquires here will be of use to him all his life. While he is still a child, he becomes capable of conducting himself correctly, and yet, with perfect freedom.⁵⁵

The experiments in education reform by Montessori and her contemporaries marked the end of the school desk as an educational project. Since the 1920s, the separation of table and seat in the classroom increasingly seemed “natural”.

Back to the start?

The protest movement of 1968 strove for “anti-authoritarian education” and questioned the hierarchical teacher-student relationship even more fundamentally.



Fig. 9: Freedom of movement in a Montessori elementary school in West Berlin in 1948.

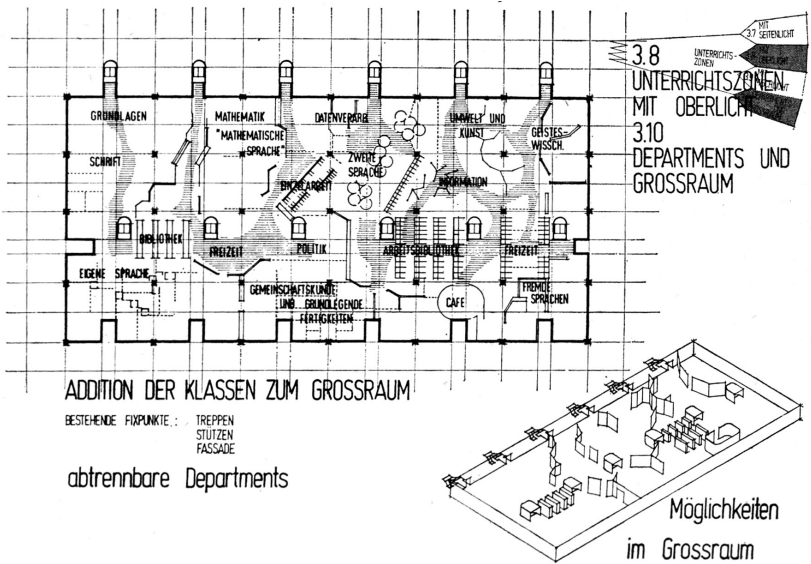


Fig. 10: Open-plan learning landscape, 1969.

The epitome of the experimental classroom in Germany was the Laborschule Bielefeld, founded in 1974 by Hartmut von Hentig, which was organized like a huge open-plan office without any separate classrooms at all. While the Bielefeld experiment was considered extremely daring at the time, the open-plan-principles have by now found their way into mainstream schools. (Fig. 10)

Finland has been the pioneering nation in education, and since the country's resounding success in the first PISA study in the year 2000, many educators have travelled north to learn about their learning processes. Reino Tapaninen, chief architect at Finland's Department of Education, explained in 2017, that they had "given up the old type of school desk and chair". The redesigned schools are furnished with big cushions, rocking chairs and sofas as well as with moveable partitions "behind which you can hide yourself for private discussions".⁵⁶ Open-plan arrangements correspond to contemporary pedagogical ideas of individual learning at one's own pace and according to one's own focus. Frontal instruction in age groups can hardly take place in such a setting.⁵⁷

So, we are now saying that in the 21st century, children at school are once again being encouraged to sink into a book on the floor or to gather in small groups chatting in dark corners. The historian cannot help but notice that similar postures were also depicted in the aforementioned painting of Jan Steen, that showed the school practice before the great Prussian educational reforms of the 19th century. Do we find ourselves in a time warp? Or what else does this imply? It should be noted that similar spatial settings have recently been designed for adults as well as for children. Izaskun Chinchilla Architects created a co-working space called Utopic–US in Madrid in 2016, that seeks to comfort an urban crowd of young creative freelancers, offering a colourful arrangement of sitting balls, swings, ladders and desks with hammocks instead of chairs. The "learning landscape" that Bjarke Ingels designed in 2018 for a private elementary school in New York City looks kind of similar. Pictures show an inviting arrangement of cushions and floating cocoons. Obviously, informality and disorder are no longer associated with poverty and lack of education, but with creativity and self-determination. The practice of teaching is adapted to a new attitude towards life. Today, children learn at an early age to choose from a vast number of possibilities and to organize themselves – in short, they learn to act as creative entrepreneurs, who have to find their way in a complex and somewhat confusing world.

Conclusion

In this essay I have sketched the rise and fall of the school desk as a discursive idea. The belief in the school bench and the immobile student body arose from a superimposition of a number of discourses and practices: the unification of nation states, the emergence of industrialized mass-production, the idea of the norm, etc. In this discursive overlap, alternative models could hardly be formulated, indeed not even considered as a possibility. The discourse limited both the questions and

the answers. As a result, the school building became much more than just a place where knowledge was transmitted. It mutated into a place for moral instruction, classification, separation and hierarchization. In a certain sense, the school can be seen as a microcosm of society, and in turn the school bench as a crystallization of the ideology of school in particular and of the disciplinary society as a whole.

Discourses in the sense of Foucault are more than just ways of thinking and communicating meanings. They are not neutral representations. On the contrary, they constitute what they claim to merely describe. Therefore, discourses cannot be compared in the sense of truths: the reasons why one discourse or other becomes dominant may lie in a sociological rather than an epistemic sphere. From a Foucauldian perspective, it would therefore be naïve to describe the end of the school bench simply as liberation. The constitution of subjects and their bodies corresponds to special contingent practices of power. The regulation of the body through the school bench may have become obsolete as a disciplinary method, but other structures have taken its place and produce other subjects and other bodies.

Notes

1. Adolf Lorenz, *Die heutige Schulbankfrage. Vorschläge zur Reform des hygienischen Schulsitzens*. Vienna: Hölder, 1888, I.
2. Wilhelm Buchner, "Zur Schulbankfrage", *Stoa*, no. 2, 1869, 43–55, 44.
3. Cf. Karl-Ernst Jeismann, Peter Lundgren (ed.), *Handbuch der Deutschen Bildungsgeschichte. Band II. 1800–1870: Von der Neuordnung Deutschlands zur Gründung des Deutschen Reiches*. Munich: Beck, 1987, 127.
4. B. Mader, *Zweiter Jahres-Bericht der Communal-Knaben-Hauptschule in Olmütz [...] 1869*. Olomuc, 1869; Hermann Cohn, *Die Schulhäuser und Schultische auf der Wiener Weltausstellung. Eine augenärztliche Kritik*. Breslau: Morgenstern, 1873.
5. Leo Burgerstein & August Netolitzky, *Handbuch der Schulhygiene*. Jena: Fischer, 1895, 96ff.
6. Sonja Hnilica, *Disziplinierte Körper. Die Schulbank als Erziehungsapparat*. Vienna: Selene, 2003; Sonja Hnilica, "Schulbank und Klassenzimmer. Disziplinierung durch Architektur", in Rudolf Egger & Bernd Hackl (eds.), *Sinnliche Bildung? Wiesbaden: VS Verlag*, 2010, 141–162; Sonja Hnilica, "Schulbank und Klassenzimmer. Eine Anordnung zum Stillsitzen", in Landschaftsverband Westfalen-Lippe (ed.), *Das erste Schuljahr. Von Schultüten zum Ernst des Lebens*. Münster: LWL-Museumsamt für Westfalen, 2015, 102–117. Kari Jormakka not only supervised my thesis (with a dedication characteristic for all his teaching) but also inspired my work on architecture and power structures, firstly through his insistence on the relevance of feminist theory in architecture and secondly through his book *Heimlich Manœuvres*. Dörte Kuhlmann, Sonja Hnilica & Kari Jormakka, *Building Power. Architektur, Macht, Gender*. Vienna: Selene, 2003; Kari Jormakka, *Heimlich Manœuvres. Ritual in Architectural Form*. Weimar: Verso, 1995.
7. Nikolaus Pevsner, *An Outline of European Architecture*. Harmondsworth: Penguin, 1964, 15.
8. Thomas A. Markus, *Buildings and Power. Freedom and Control in the Origin of Modern Building Types*. London: Routledge, 1993.
9. Cf. Gundula Vom Berg-Hefermehl, *Grundzüge der Entwicklung der deutschen Schulbank*. Univ.-Diss. Düsseldorf, 1969; Franz Kost, *Volksschule und Disziplin. Die Disziplinierung des inner- und ausserschulischen Lebens durch die Volksschule, am Beispiel der Zürcher Schulgeschichte zwischen 1830 und 1930*. Zürich: Limmat Verlag Genossenschaft, 1985; Thomas Müller & Romana Schneider (eds.), *Das Klassenzimmer. Schulmöbel im 20. Jahrhundert*. Munich: Prestel, 1998.
10. Karin Priem, "Strukturen – Begriffe – Akteure? Tendenzen der Historischen Bildungsforschung", *Jahrbuch für Historische Bildungsforschung*, vol. 12, 2006, 351–370.
11. Cf. Christian Grabau & Markus Rieger-Ladich, "Schule als Disziplinierungs- und Machtraum. Eine Foucault-Lektüre", in: Jörg Hagedorn (ed.), *Jugend, Schule und Identität: Selbstwerdung und Identitätskonstruktion im Kontext Schule*. Wiesbaden: Springer VS, 2014, 63–79.
12. Cf. Horst Schiffler & Rolf Winkeler, *Tausend Jahre Schule. Eine Kulturgeschichte des Lernens in Bildern*. Stuttgart, Zürich: Belser, 1985. See also Sigfried Giedion, *Mechanization Takes Command. A Contribution to Anonymous History*. New York: Norton, 1969, 262ff.

13. Buchner, "Zur Schulbankfrage", 45.
14. Burgerstein & Netolitzky, *Handbuch der Schulhygiene*, 253.
15. Michel Foucault, *Discipline and Punish. The Birth of the Prison*. New York: Vintage Books, 1995, 152.
16. Cf. Lorenz, *Die heutige Schulbankfrage*, 17, 38.
17. *Ibid.*, 18ff., 53ff.; cf. Müller & Schneider, *Das Klassenzimmer*, 15ff.
18. Theodor Krauth & Franz Sales Meyer, *Die gesamte Möbelschreinerei mit besonderer Berücksichtigung der kunstgewerblichen Form*. Leipzig: Seemann, 1902, 176f.
19. Lorenz, *Die heutige Schulbankfrage*, 25f.
20. Giedion has described the development of movable furniture for modern comfort. Giedion, *Mechanization Takes Command*, 398ff.).
21. Lorenz, *Die heutige Schulbankfrage*, 35.
22. Anton Walter, "Das Schulhaus und seine Einrichtung", *Vierteljahresschrift für körperliche Erziehung*, No. 2, 1908, 65–75, 74f.
23. Buchner, "Zur Schulbankfrage", 53.
24. Wilhelm Rettig, *Leo Burgerstein und die Schulbankfrage*. Charlottenburg: P. Johannes Müller Verlag, 1909, 19.
25. Cf. Müller & Schneider, *Das Klassenzimmer*, 17.
26. Cf. Kost, *Volksschule und Disziplin*, 111ff.
27. Ernst Neufert, *Bauentwurfslehre. Grundlagen, Normen und Vorschriften* (Berlin: Bauwelt-Verlag, 1936). First English edition; *Architect's Data*. London: Lockwood, 1970.
28. Foucault, *Discipline and Punish*, 184.
29. Daniel Gottlob Moritz Schreber, *Kallipädie oder Erziehung zur Schönheit*. Leipzig: Fleischer, 1858, 203.
30. Cf. Leo Burgerstein, *Schulhygiene*. Leipzig: Teubner, 1906, 43.
31. Kost, *Volksschule und Disziplin*, 130; cf. Katharina Rutschky (ed.), *Schwarze Pädagogik. Quellen zur Naturgeschichte der bürgerlichen Erziehung*. Frankfurt: Ullstein, 1977, 499.
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33. Hnilica, *Disziplinierte Körper*, 75ff.
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35. Edward R. Robson, *School Architecture*. Leicester: Leicester University Press, 1972 (1874), 377ff.
36. Oskar Peschel, "Die Lehren der jüngsten Kriegsgeschichte", *Ausland*, No. 29, 17.07.1866, 695.
37. Johann Ignaz von Felbiger, *Eigenschaften, Wissenschaften und Bezeigen rechtschaffener Schulleute* (Sagan, 1768), 35f.
38. W. Fricke, "Die Ordnung in der Schule", *Stoa*, No. 2, 1969, 198–202, 199.
39. *Ibid.*, 198f.
40. Pierre Bourdieu, *Outline of a Theory of Practice*. Cambridge: Cambridge University Press, 1977, 89.
41. Marcel Mauss, "Techniques of the body", *Economy and Society*, vol. 2, 1973, 70–88, 74.
42. Gordon W. Hewes, "World Distribution of Certain Postural Habits", *American Anthropologist*, vol. 57, 1955, 231–244, 231ff.
43. Bourdieu, *Outline of a Theory of Practice*, 94.
44. Cf. Egon von Bremen, *Die Preußische Volksschule. Gesetze und Verordnungen*. Stuttgart: Cotta, 1905, 487f. See also Neufert, *Bauentwurfslehre*, 149f.
45. Burgerstein & Netolitzky, *Handbuch der Schulhygiene*, 123ff., 134ff.; Neufert, *Bauentwurfslehre*, 1936, 149f.
46. Cf. Foucault, *Discipline and Punish*, 200ff.; Jeremy Bentham, *The Panopticon Writings*. London: Verso, 1995.
47. Bentham, *The Panopticon Writings*, 31.
48. Foucault, *Discipline and Punish*, 148.
49. Robson, *School Architecture*, 71.
50. *Ibid.*, 72f.
51. Jormakka, *Heimlich Manœuvres*, 121.
52. Jean-Jacques Rousseau, *Emile, or Education*. London: J.M. Dent and Sons, 1921, 41.
53. Maria Montessori, *The Montessori Method*. Lanham, MD: Rowman & Littlefield, 2004, 74ff.
54. Cf. Thomas Müller & Romana Schneider, *Montessori. Lehrmaterialien 1913–1935. Möbel und Architektur*. Munich: Prestel, 2002.
55. Montessori, *The Montessori Method*, 110f.
56. Cited in Feargus O'Sullivan, "Why Finland Is Embracing Open-Plan School Design", in *Citylab*, 18.08.2017 <https://www.citylab.com/design/2017/08/why-finland-is-embracing-open-plan-school-design/537060/> (accessed 10.03.2020)
57. Cf. Natascha Meuser (ed.), *Schulbauten. Handbuch und Planungshilfe*. Berlin: Domus, 2014.

ALVAR AALTO AND THE ISRAEL CONSERVATORY OF MUSIC IN TEL AVIV – A FOOTNOTE IN AALTO SCHOLARSHIP

Gareth Griffiths

Of the over 300 individual architectural works designed by Alvar Aalto (1898-1976) over his long career, the vast majority of those actually built are located in Finland. But beyond his home country, there are also buildings designed by him to be found in Sweden, Denmark, Iceland, Estonia, Germany, France, Italy, Switzerland, USA and present-day Russia, as well as an interior in Brazil, a partial contribution to a work in present-day Bangladesh, in addition to which are unrealised works or competition entries for sites in Austria, Iran, Iraq, Saudi Arabia, Canada, the Dominican Republic and the former Yugoslavia and Soviet Union, not to mention invitations to contributions in Lebanon and Pakistan.¹ There are no buildings by Aalto in Israel, but if things had worked out as hoped for, there would have been, because in spring 1973 he had been invited to design new premises for the Israel Conservatory of Music in Tel Aviv.

The initial negotiations for the project progressed slowly, with the client representatives visiting Aalto in Finland in August 1973. But they then put the project on hold following the outbreak of the Yom Kippur War in Israel in October that same year. They attempted to revive the project in 1975, beginning, they hoped, with Aalto travelling to Israel to visit the site.² Aalto died on May 11, 1976, aged 78, before having made any drawings for the project and without making the trip to Israel, though plane tickets had been reserved.

With no completed Aalto building, design drawings or even sketches to discuss, the following article is firstly a footnote in Aalto scholarship, making public a project that has been essentially unknown.³ There is also the matter, however, of the context within which Aalto was being invited to design a new building in Tel Aviv – the radically modern, cosmopolitan European-centred, secular Zionist city.⁴ The site where the music conservatory would have been built, a civic-cultural centre comprised of several free-standing buildings, has its own intriguing history, including speculative theorisations from Bruno Zevi about the normative planning guides for the site. Aalto was given a 54 x 54 metre plot, and in terms of Aalto's principles, as Kenneth Frampton and others have argued, the significance of Aalto's mature heterotopic strategy resided in its categorical antipathy to building as a proliferation of free-standing objects.⁵

On May 14, 1973, Menahem Meir, Director of the Israel Conservatory of Music in Tel Aviv, wrote to Aalto about a proposed plan for a major building programme for the Conservatory, including a school of music and two concert halls. He asked Aalto whether a project of such scope would be of interest to him and whether he would be “willing to participate either in the overall planning or in the guidance” of the project. In encouragement of a positive reply, Meir added: “I personally feel that apart from the specific benefit to our school, your planning may also serve as an esthetic model of architecture to the young city of Tel Aviv.”

Since its foundation in 1943, the conservatory had been housed in several locations in Tel Aviv, but now it was being offered the opportunity to acquire its own purpose-built facilities. Meir attached to his letter a basic building programme and a street map indicating the proposed site, 70 x 120 metres, on the south side of King David Boulevard (Sderot David Hamelech) in the centre of Tel Aviv as allocated by the City of Tel Aviv. In addition to a school of music for 1130 students, there would also be two concert halls, an auditorium with a capacity of 900-1100 seats and a recital hall with 300-350 seats. Furthermore, the building programme included a dance department as well as a museum of musical instruments. It was initially hoped that the project would be realised in two stages, with the larger concert hall and museum built in the second stage.

Aalto replied to Meir on June 12, 1973, in the affirmative: “My answer would be that just a project like yours is a first class project for me in spite of that my working program is big enough. My suggestion is that I could do a preliminary project and then we could see if it is right for you and after that confer of further development in a final project.”

Thus began a series of correspondence between Meir and Aalto.⁶ The Aalto archives holds a total of seventeen letters and two telegrams from Meir plus copies of nine letters and two telegrams from Aalto. Aalto also received a brief letter from the then mayor of Tel Aviv, Shlomo Lahat, encouraging him to accept the commission. The following paper is based significantly on those letters as well as a few short comments I received in 2014 from Menahem Meir himself.⁷

Meir replied to Aalto’s first letter on June 25, 1973, expressing delight with his response, yet candidly admitting that he has never seen any of Aalto’s works in person, only in architectural magazines, but that he himself wished to make a trip to Finland in order to give first-hand information on the project, adding that: “Of course it may be a bit too early to mention this, but I am sure you are aware of the extremely different climatic conditions of our two countries.” He also emphasises how it would be “very befitting that one of your works should also be represented in the Holy Land, and particularly in the form of an Institute of Music, which is a language understood by all.”

Meir travelled to Helsinki at the end of August 1973 together with Shimon Horn, Chairman of the Executive Board of the Conservatory. There are no records

in the Aalto archives regarding the contents of that meeting. In terms of relevant projects, during their visit one assumes that they visited at least the Finlandia Hall concert hall in Helsinki, which had been completed two years earlier, and were made aware that Aalto was then working on its congress hall extension, as well as the Lappia concert hall in Rovaniemi and the opera house in Essen, Germany. And no doubt Aalto would have told his guests about his other projects for the Middle East and his travels there.

In the next letter from Meir, dated October 16, 1973, during the Yom Kippur War (October 6-25, 1973), fought between Israel and a coalition of Arab states, he writes: "Needless to say, the planning and scheduling for the Institute of Music will, for the time being, have to remain flexible. (...) As we do believe that peace must come to this area, so we know that the needs for cultural activities in Israel will continue to prosper." The next letter is dated January 6, 1974, in which Meir writes: "Now that the [Israeli] elections are over, the Geneva talks in progress... I hope that we will be able to progress." But the following letter is dated April 9, 1975 – over a year later – and Meir is well aware of the passing of time: "Of course the war temporarily stopped all plans and now we feel that we can resume our work. As in September 1973, I still feel that your design could give our Institute a very special cultural atmosphere." He mentions how during his trip to Helsinki it had been agreed that Elissa Aalto, Aalto's wife, would visit Israel for a week for a preliminary tour and "to examine local building materials".

Aalto replied in a letter dated April 15, 1975, asking about travelling to Tel Aviv to visit the site. There were difficulties with the original site, and in a letter dated April 22, 1975, Meir mentions how they have now received a more favourable site in the midst of the new Civic and Cultural Centre in Tel Aviv along Sha'ul Hamelech Boulevard. Meir enclosed a site plan (Fig. 1) crudely showing the position of the new site, set in a park, but next to a city block reserved for various public buildings – a law courts, art museum, library, and centre for performing arts, the first three of which had already been built. In the following letter, dated August 10, 1975, Meir states that "the land for the building... has been confirmed by the City of Tel-Aviv, and that we are ready finally so start planning." He yet again voices his concern about the climatic conditions, but adds, somewhat reassuringly: "Of course such things as our strong light and sun, local building material and the general mood of the people and country, I believe, can be learned by visiting us."

Aalto replied in a letter dated August 19, 1975, in which he stated that he understood the previous letter to be "definitive acceptance" of the work. Somewhat cryptically he adds: "There are many things suggested for me but would leave other things which are probably politically not in friendship with the Israel work. I accept with pleasure your suggestion and leave out things which are not probably good to continue with that (Saudi-Arabian etc.)."⁸ In 1975 Aalto and his office had started on an urban centre for Jeddah in Saudi Arabia, including an auditorium, art museum, mosque, planetarium and aquarium. Preparatory studies

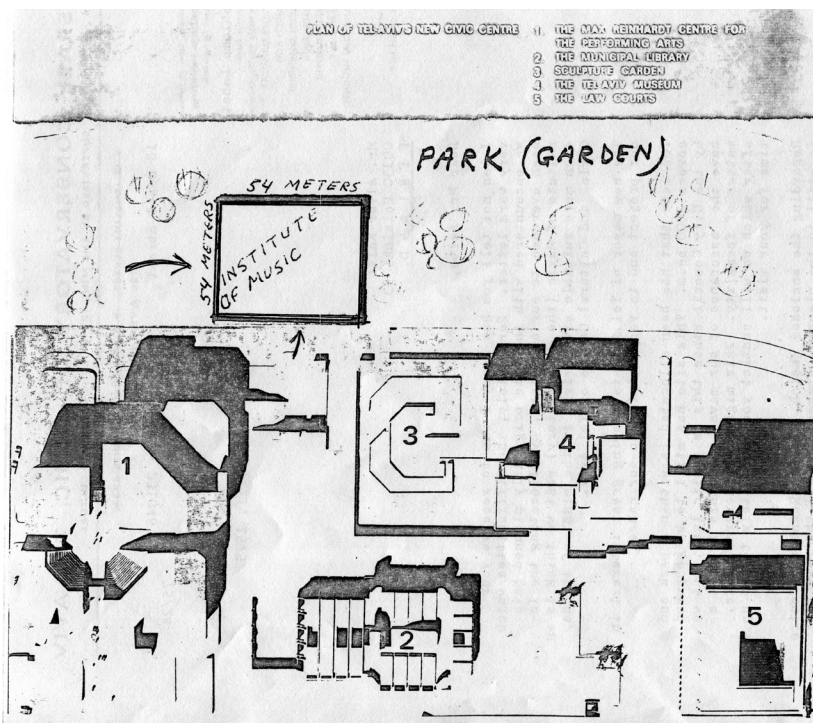


Fig. 1: Civic and Cultural Centre, Tel Aviv, with the outline for site of the "Institute of Music", as sent to Alvar Aalto, April 1975: 1. Max Reinhardt Centre for the Performing Arts (Salo Hershman, 1969, not built); 2. Beit Ariela and Sha'ar Zion Library (Luphenfeld-Gammerman Architects, 1974); 3. Sculpture Garden; 4. Tel Aviv Museum of Art (Yitzhak Yashar and Dan Eytan, 1964-1971); 5. Palace of Justice (Ya'akov Rechter, 1965).

were made in 1975 and 1976 but the project was then halted by the client and never taken further. The implication from Aalto's clumsy wording seems to be that in agreeing to take on the project he was prepared to drop the project in Saudi Arabia, either because the Israeli clients wished it or due to his own convictions.

In the letter of August 19, 1975 Aalto also sets out specific details: the original idea to execute the project in two stages would no longer stand and it would be built in a single stage: "Otherwise it is impossible to get the good totality. (This is for my part a sine qua non)." Aalto would prepare drawings as soon as he has visited the site. Meir (letter dated August 31, 1975) agreed to Aalto's suggestions regarding completing the building in a single stage, and was eager to know when Aalto, accompanied by his wife, would be arriving in Israel.

A number of letters were then sent between Aalto and Meir discussing travel issues and practicalities. A flight was even booked, arriving in Israel on Tuesday March 2, 1976, via Zurich. The further correspondence became detailed and Aalto was asked, for instance, about travelling around the country: "I presume

Jerusalem will be of great interest to you, as well as Bethlehem, Nazareth and a Kibbutz” (Meir letter dated February 10, 1976) – to which Aalto replied: “I would not travel very much inside the country... I would concentrate on the work itself and get so far that I can start with the first project (sketches).”⁹ That was not the first time that Aalto had spurned the opportunity for “sightseeing” while visiting a site abroad – for instance in Iran in 1969 – and this was not a matter of indifference but, as he stated, he preferred to spend the time familiarising himself with the site, confident in his own ability to reach a solution.

A letter from Aalto’s office to Meir dated April 29, 1976, informing him that Aalto was ill is the last recorded letter sent from Aalto’s office to Meir. There is one final letter from Meir, dated May 7, 1976, in which Meir again makes suggestions for possible travel dates. Aalto died on May 11, 1976, probably before the letter arrived.

There are no known Aalto sketches, notes or design drawings for the Israel Conservatory of Music in Tel Aviv,¹⁰ and the project is not even mentioned in *Alvar Aalto. A Life’s Work. Architecture, Design and Art*, the complete catalogue of Aalto’s works edited by Göran Schildt, published in 1984. Schildt does mention, however, a project for Israel in the third volume of his biography on Aalto,¹¹ though his account does not agree with the information retained in the Aalto archives. He states that the commission was for a “concert hall the size of the Finlandia Hall” in Jerusalem, rather than a music conservatory (including a concert hall) in Tel Aviv, and I have found no evidence for his claim. He mentions though the “political circles” that would have brought about such a commission, stating that it “stemmed from Golda Meir’s circle” – Meir was prime minister of Israel from 1969 to 1974 – which is true in the sense that though a musician by profession, Menahem Meir was her son! Schildt does not mention Menahem Meir, but states that Golda Meir herself wrote to Aalto to ask him “to come to Israel for discussions.” I found no such letter in the Aalto archives, and it is probable that he has confused Menahem Meir for his mother. All the same, Schildt pictures the potential project in glowing terms, “the work that enticed Aalto most,” and “the concert hall project became a *fata morgana* for him, a goal that always seemed in reach but stubbornly eluded his grasp.”¹²

The selection of Aalto as architect of the Israel Conservatory of Music

So how did the Israel Conservatory of Music in Tel Aviv and its director Menahem Meir (1924-2014) come to choose Aalto to design their new building? For Meir, a key factor in selecting Aalto had been his design of cultural centres and concert halls in Finland.¹³ As regards to his knowledge of architecture, Meir’s wife, Ayala Meir (1925-2008), was the daughter of a Polish-born Israeli architect Yaakov Pinkerfeld (1897-1956), who had studied in Vienna. Still, in terms of local expertise, there was already an impressive precedent for the design of a concert hall in Tel Aviv, the Mann Auditorium (1957) by Dom Karmi, Zeev Rechter and Yaakov

Rechter, and one that in a way also typical for Aalto created distinct urban and park-like sides of the building.¹⁴ But the recommendation to choose Aalto had specifically come from two friends of the Meirs, the architect couple Gideon Ziv (1926-2015) and Tova Ziv (1929-).¹⁵ Gideon Ziv had worked with Philip Johnson on the design of the Nuclear Research Center in Sorek in 1956-59, a monolithic concrete structure – the sort of building occasionally labelled as “Brutalist”, though with an overall form, interior courtyards and columns reminiscent of archaic forms. The Zivs’ own works were strongly rational, combining themes associated with the Bauhaus and its legacy in Israel and Tel Aviv in particular, for instance the Israel Electric Corporation’s technical centre (1966) in Tel Aviv, and Gideon Ziv, together with Yitzhak Perelstein, also designed Israel’s first “skyscraper”, the 34-storey Shalom Tower (1965),¹⁶ in Tel Aviv. According to Tova Ziv, however, their own architectural approach did not prevent them from very much admiring Aalto’s work, and indeed they themselves had journeyed to Finland in 1970 to visit his buildings. Menahem Meir then accepted their recommendation for Aalto as a potential architect of the new conservatory building, and the invitation to him was sent on May 14, 1973.

Though there is no design to analyse, it is still worth discussing, albeit rather briefly, the architectural context into which Aalto would have been entering in the mid-1960s.¹⁷ The major factor to consider is the role of modernist architecture and its relation to the consolidation of the state of Israel – just as Aalto had been central to the physical planning of the post-war Finnish state.¹⁸ But Aalto was now being invited to design a building for Tel Aviv, a city that modelled itself on European culture and thinking; though in the cases of both countries “International Style” modernism had been promoted as part of the nation building. In the case of Finland (and elsewhere in the Nordic countries), such architecture was “suited for expressing the character of a technically advanced, developing new nation that looked optimistically into the future”,¹⁹ only later to be seen as having established its own tradition, in the words of Juhani Pallasmaa: “In the Nordic countries (...) modernism has become a tradition, one might even say an attitude to life – which it would be senseless to question.”²⁰ And in Israel it was referred to paradoxically as a “Bauhaus vernacular” and “national style”.²¹

From the vantage point of a pastoral historical distance, Tel Aviv’s modernist architectural-historical discourse often centres on its status as the “White City” – the world’s largest concentration of “functionalist” or International Style modernist architecture built in the late 1920s and 1930s, though in this sense the term “White City” was in fact coined only in 1984 by architecture historian Michael D. Levin in curating an exhibition that would revive an interest in the architecture. The term would belatedly become integral to its identity with its inclusion in 2003 in the UNESCO World Heritage List as “The White City of Tel Aviv”.²²

Keeping in mind Meir’s possibly flattering comment to Aalto that “your planning may also serve as an esthetic model of architecture to the young city of Tel Aviv”, to what might Aalto’s outlook on architecture be compared? Aalto, of

course, would not have been faced by the then often-raised question of the relation between building, architecture and the Israeli state and Zionism. In terms of actual construction, in the words of architecture historian Alona Nitzan-Shifan, “Both Le Corbusier and the leaders of the Zionist movement, the argument goes, were simultaneously ‘creating something out of nothing’.”²³

Tel Aviv, originally seen as a more affluent suburb of the city of Jaffa, was already developing apace without a plan when the Scottish town planner and polymath Patrick Geddes was asked in 1925 to make a master plan for the area not already built. Approved in 1927 by the British Mandate authorities, it was said at the time to offer “a successful correlation between the modern notion of the ‘garden city’ and local geographic, climatic and social conditions”.²⁴ From the early 1930s onwards, several thousands of buildings were built there with distinctly Modernist forms, designed mostly by Jewish architects who had immigrated to the British Mandate of Palestine from Germany and elsewhere in mostly Eastern Europe following the rise of the Nazis, but also by architects born in Palestine who went to study in Central Europe, four specifically to the Bauhaus (Shlomo Bernstein, Munio Gitai-Weinraub, Shmuel Mestechkin and Arieh Sharon). However, the most notable of the latter, Arieh Sharon, stated categorically that there was no such thing as a “Bauhaus concept or style”.²⁵ Another, Zeev Rechter, had studied in Paris and called himself a disciple of Le Corbusier. Certain aspects typical for Le Corbusier and the Bauhaus, such as large areas of glass, did not work well in the Mediterranean climatic conditions, but others could, for instance the use of *pilotis*, raising up the building, allowing the sea breeze to come through, while other key aspects were adapted, for instance, the typical large areas of glazing replaced by smaller windows, and the principle of the *brise-soleil* to cut direct sunlight was served by deep balconies which in turn added to the plasticity of the architecture, strips of balconies even alluding to Le Corbusier’s use of the strip window.²⁶

The expressionistic curved corners seen as somewhat emblematic of Tel Aviv’s International Style architecture are often said to have been inspired by the works of Erich Mendelsohn, who indeed lived in Palestine between 1939 and 1941, during the British Mandate, and designed a number of buildings there – indeed, he had hoped, but failed, to be named as architect and chief planner of British Mandate Palestine – before emigrating to the USA in 1942.²⁷ He argued, nevertheless, that the International-style modernism of Tel Aviv was a failure:

Their architects built with cement and glass because they had neither the time nor the understanding to study the conditions of the oriental climate. They were excited, as imitators invariably are, at the new signs visible on the architectural horizon, they were anxious to join forces with the leaders of the new movement. ... the longing to typify the new world and to be modern, hence glass. As a result, there arose the Jewish city of Tel Aviv... wild colonial vegetation without properly organised planning.²⁸

Mendelsohn ended up somewhat in opposition to the modernist architects in Palestine epitomised by the members of the so-called Chug (“Circle”), who sought for their new hoped-for state a new functionalist architecture that ultimately rejected historical-cultural contingencies and “Orientalism”. Mendelsohn argued that architects should not simply impose modern European culture and architecture on the millennia-old land and he himself sought inspiration from the Semitic architectural tradition, even hoping for a new Renaissance.²⁹ Arie Sharon, one of the founding figures of Chug, regarded Mendelsohn as an “aesthete“, who “understandably has a special aversion to phony replications of his own trademark motifs. He describes Tel Aviv as more or less the slaughterhouse of modernist ideas.”³⁰

It is far beyond the scope of the present essay to discuss the parallels in careers and architecture of Mendelsohn and Aalto, ten years his junior, though later I will touch briefly on Zevi’s championing of the works of Wright, Mendelsohn and Aalto as exponents of what he regarded as “organic architecture”. Both acknowledged the debt of influence of Frank Lloyd Wright and Henry van de Velde, and both, despite enjoying prolific careers – Aalto’s more sustained – found themselves placed at the fringes of canonical international modernism. Neither of them were included in the first edition of Sigfried Giedion’s canonical *Space, Time and Architecture* from 1941, and while Aalto would go on to receive more coverage than even Le Corbusier in the second edition published in 1949, Giedion explained Aalto’s architecture in terms of a “leap from the rational-functional to the irrational-organic”, albeit in Giedion’s conception, the organic humanisation of Modernism “already lay concealed within functional conception” or, as Aalto himself characterised it, an “extended concept of rationalism”.³¹ A rare direct comparison is framed in terms of their adherence to or transgression from canonic early modernism; Levin compares Mendelsohn’s Government Hospital in Haifa Bay (1936-38) to Aalto’s Paimio Tuberculosis Sanatorium (1928-33) in how it is divided between splayed wings oriented optimally for the sun and the curved wing in Haifa resembling the terrace roof in Paimio.³²

Still, it would be more accurate to see Aalto as arriving into an architectural scene in Tel Aviv in the mid-70s defined not by “white Modernism” but rather by, in the words of Gilbert Herbert, “a hard architecture of stern materials – concrete and stone – and of uncompromising forms, geometric, massive, sharp-edged. It is an architecture where the wall surface is dominant and the sun the main creator of pattern.”³³

Already during the 1950s and 1960s, various modernist Israeli architects began searching for a sense of place within the modernist order – as opposed to others who turned to the Palestine vernacular to best represent their idea of locality – in order to create an experience of containment and to highlight the materials and construction. The architectural trend of “Brutalism”, with its origins in Le Corbusier’s later *béton brut* works with exposed concrete, was embraced by various architects in Israel, mostly a younger generation, some specifically in terms of native intimacy

with the landscape and the climate and even the local Arab vernacular.³⁴ Zvi Efrat has argued, however, that the association of Israel with concrete is contentious; some endorsed the rhetoric of concrete as the “Israeli material”, which paradoxically could be keyed into the international trend of Brutalism, albeit in a most reductive sense, in regard to its material “poverty” and technical “honesty” to build a suitable identity for a new “authentic” Israeli architecture.³⁵

“Brutalism” as an architectural-historical definition is rather imprecise. While Reyner Banham saw it as an ethical stance against the post-war meekness of the “New Empiricism”, fixated on the Nordic Countries, Anthony Vidler has seen it as part of the post-war response to the call for a “new monumentality” as advocated by Giedion and others.³⁶ In Finland by the 1960s Aalto was seen as an idiosyncratic opposition to the rationalist school typified by Aulis Blomstedt, and which received its most “Brutalist” expression in the fair-faced concrete works of Aarno Ruusuvaori.

It should be recalled, however, that arch-Brutalists Peter and Alison Smithson argued that Aalto’s Baker House Dormitory (1949) at MIT was “probably the first true Brutalist building”, but not specifically in the sense of its materials – though his use of imperfect bricks could be called brutalist – but rather “it was the first building consciously to use its access systems as places and as the means to allow the building to explain itself.”³⁷ Nevertheless, while the white-rendered-brick facades of early Modernism could be seen as a matter of expediency, denoting an idea of plasticity over materiality that would realise the full potential of concrete when the technology was available and cost-effective – notably Mendelsohn’s Einstein Tower (1921) in Potsdam was conceived in concrete but due to construction difficulties and post-war shortages had to be built in brick – it was Brutalism that would reintroduce the earthen aesthetic of the concrete material itself.

The use of exposed concrete and a celebration of “brutalism” and heaviness, however, could have been at odds with Aalto’s own outlook in regards to its use. While he had been a pioneer in Finland in the use of standardised prefabricated concrete elements in housing production, executed most notably as a facade finish in the Hansaviertel apartment building (1957) in Berlin, and had relied on the opportunities provided by concrete in achieving a plastic form, especially for vaulting in church interiors, most notably in the Vuoksenniska Church (1958), the only ostensibly public buildings where Aalto used fair-faced or exposed concrete as a significant element was the perimeter wall of the Police Headquarters in Jyväskylä (1967) (Fig. 2) and the combined water-tower and offices (1968) on the university campus in Otaniemi. He also used it for a number of church bell towers (e.g. Wolfsburg Church, 1962), but it is barely distinguishable from the white-painted, rendered brick walls of the churches themselves. Still, Aalto’s declaration at the outset that Elissa Aalto would travel to Israel “to examine local building materials” has a great poignancy. To give a comparative example, for the design of the Museum of Art in Shiraz (1969, unbuilt) in Iran, Aalto had visited the location, after which he chose to use brick because “in the history of architecture brick is a



Fig. 2: Alvar Aalto, (former) Police Headquarters (1967), Jyväskylä.

product of Iran and its use marks the tradition of the country. It is also a material well-suited to the climate and the variations of temperature in the region.”³⁸

The area of the Civic-Cultural Centre in Tel Aviv where Aalto was being asked to design was not built only of concrete. The neighbouring Beit Ariela and Sha’ar Zion Library was clad in stone, though its form is still of a kind associated with Brutalism. If not ready to use exposed concrete, then an obvious choice for Aalto would have been the local Tel-Aviv stone. At that period of his career, he was interested in the question of the “civicness” of building materials, his most controversial choice being Italian Carrara marble and his most ingenious his patented long and curved “stave” tiles, available in a limited selection of colours. Among the notable monuments clad in Carrara marble was the Finlandia Hall concert hall (1971) in Helsinki – *marble, Italy* and the *Mediterranean* here conveying the symbolism of enculturation.³⁹ What Meir would not have known during his visit to Helsinki was that Aalto at that time was already a somewhat marginalised figure in Finnish architectural circles and his architecture and his use of marble were heavily criticised by the public and the young generation of architects for its elitism, one critic even calling it “baroque”.⁴⁰

The exact origin of Aalto’s use of tiles in facades, most notably cobalt blue tiles, is not known for certain. He visited Spain twice in 1951, including Granada, as well as north Africa in 1954. There are early samples in the courtyard of the Muuratsalo Experimental House (1954), but his first significant use externally of tiles was in the Seinäjoki Town Hall (1958-65). However, his drawings for the

Museum of Art in Baghdad (1957, unbuilt) in Iraq also show the exterior facades clad in cobalt-blue tiles. Though no explanation for this is known, Mina Marefat states in her account of Aalto's key works in the Middle East that the cobalt blue ceramic tile is an indigenous material.⁴¹ So a motif significant in Aalto's mature works in Finland may well have had its origins in the Middle East and/or Islamic culture. Just like his distinct fan motifs derived from classical Greece and reemployed in all scales – from theatre plans and cross-sections to chair legs – it was yet another loan from the “South”, this was “repatriating” a material that would also have been Aalto's own signature “civic material”. As Eeva-Liisa Pelkonen has put it, “a single architectural motif borrowed from distant cultures embodies both the longing for past golden eras as well as aspiration for those yet to come.”⁴²

Aalto's arrival in Tel Aviv and Meir's flattering statement about Aalto's planning serving as an aesthetic model of architecture to the young city of Tel Aviv, should also be seen against yet one more agent for future change. Though beyond the scope of the present essay, it is worth briefly mentioning the input from one more “foreign consultant” keen to impart his reasoned assessment on the future trajectory for architecture and town planning in Israel, Oscar Niemeyer, who spent six intensive work months in Israel in 1964 while in political exile from his native Brazil. Niemeyer shares with Aalto the distinction of sometimes being associated with a “national style” and anti-rationalism. Aalto himself on a trip to Brazil in 1954 referred positively to Brazilian architecture as a product of its climate and site-specific conditions, even calling Niemeyer's own house (1954) in Rio de Janeiro “a flower that cannot be transplanted... beautiful and appropriate only in its own habitat.”⁴³

Their attitude to the human aspect and materiality of architecture, however, is somewhat different. Niemeyer argued in defence of “almost unlimited plastic freedom”, one never based on “radical impositions of function”, and for which exposed reinforced concrete provided the best means of aesthetic expression.⁴⁴ As we have seen, though Aalto certainly used concrete, he rarely emphasised its materiality, and moreover his forms were derived from human-centred functions and rarely formalism. But something which brings them together within the context of Tel Aviv is their attitudes to urbanism and the cityscape. In his discussion of Niemeyer's time in Israel, Zvi Elhyani argues that Niemeyer was proposing a planning ideology that was contrary to the prevailing Zionist conception of space premised on sprawl, dispersal, the avoidance of dominant urban centres and monumental objects,⁴⁵ in other words, at its most urban, close to the garden city model typified by Geddes's plan. In terms of urbanism, Niemeyer argued in favour of a decontextualized “ensemble solution”, which while allowing for a feeling of growth and spontaneity – combinations of separate volumes of differing scales set on a horizontal plinth – eschewed the historic European city. His schemes were sometimes even accompanied by didactic diagrams, as with the Panorama project in Tel Aviv (1964) (Fig. 3) comprising a congress centre, business and residential premises, making clear the rationalist-modernist principles to be avoided.

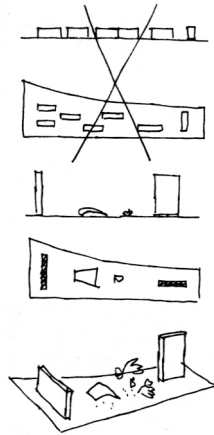


Fig. 3: Oscar Niemeyer; Normative diagram for the ground and massing of the Panorama project, Tel Aviv, 1964.

With his closer affinity to historical precedent, one might think Aalto's urbanism to be opposite that of Niemeyer. But beyond Aalto's early preoccupation with the organically grown towns of the Mediterranean,⁴⁶ which would inform all his mature building conglomerations, Aalto's urban plans are, like Niemeyer's, lessons in reconfiguring the ground, breaking the mould of the urban grid to follow the site topography or to create one virtually from scratch, even when set in the heart of the city, as shown by his new central plan for Helsinki (1959-72). In Sunila (1936) and the plan for Kivenlahti-Soukka (1964-66), Aalto took further distance from the principle of the garden city with the virtually anti-urban ideology of the "forest town".

In sharp contrast to the Zionist urban conception of dispersion, Niemeyer argued that due to the size of its territory and in order to conserve the land and its natural beauty "Israel must be built upwards and its cities planned vertically. ... Low-to-the-ground construction knows not what it begets." Commissioned by property developers keen to exploit land values, Niemeyer in partnership with local architects within a short period of time came up with a number of proposals for high-rise developments in Tel Aviv and elsewhere in Israel, none of which were built, though some modified fragments were completed later by Israeli architects. Though Aalto himself would never serve as the aesthetic model of architecture in Tel Aviv, the idea of low-scale dispersed anti-urbanism has persisted throughout Israel, and it was not until the 1990s that Niemeyer's ideas about verticality would later re-emerge with further property speculation and diminishing land reserves.⁴⁷

The Civic-Cultural Centre and the plot offered to Aalto

The plot measuring 54 metres x 54 metres offered to Aalto in 1975 for the new building was ostensibly part of a site that had been set out already during the 1950s

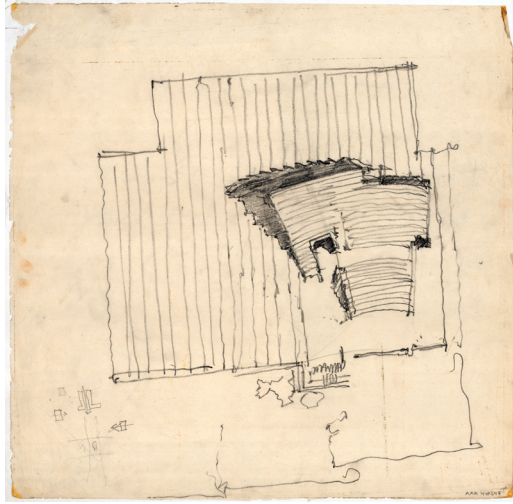


Fig. 4: Alvar Aalto, Baghdad Art Museum, Iraq (1957); draft of the roof and open-air auditorium.

as a Civic-Cultural Centre in the Tel Aviv City Building Plan (Fig. 1). Three of the scheduled buildings were at that time already completed. Aalto was essentially being offered a square plot to design a free-standing object among other unrelated free-standing objects, the space between forming a plaza. Strictly speaking, however, Aalto's plot is not part of the city block, measuring approximately 300 metres x 150 metres, reserved for various buildings comprising the Civic-Cultural Centre, but rather lies immediately north of it, in an area extending east from the Dubnov Gardens. Today on Aalto's site stands an apartment block, "Golda on the Park" (1994), by Rechter Architects.

It was rare for Aalto to be offered a precisely square-shaped plot in park surroundings; examples of more-or-less square forms set within a park include Baghdad Art Museum (1957) (Fig. 4) and the North Jutland Art Museum (1959), but even in these he "deconstructed" the perimeter and massing, breaking them up into distinct volumes so as to make them into cityscapes-in-miniature. This might well have been axiomatic in the design of the Tel Aviv conservatory building when contemplating the positioning within the whole of the 1000-seat concert hall and 300-seat recital hall. A similar relevant example would then be Aalto's Cultural Centre in Wolfsburg (1962) where, in the words of Robert Venturi, "the rectangular configuration of the whole composition is barely maintained as he [Aalto] organizes the necessarily diagonal shapes of the auditorium."⁴⁸ So one can well imagine that Aalto might have requested to change the borders by extending out into the surrounding gardens and perhaps requesting to design a plaza to better integrate the existing buildings with his own. But in his design for the Museum of Art in Shiraz (1969) in Iran, when cut off from any urban

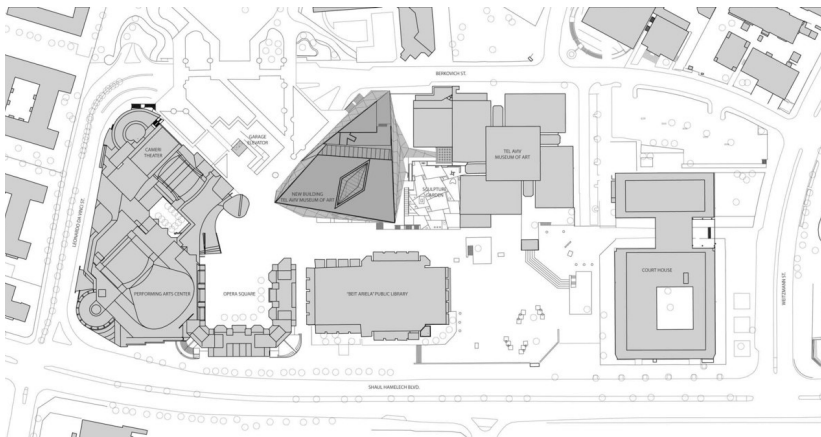


Fig. 5: Herta and Paul Amir building (Preston Scott Cohen, 2011) extension to the Tel Aviv Museum of Art; to the left, the Golda Center (Yaakov Rechter, 1994) and Cameri Theater (Amnon Rechter, 2003). North of the art museum is part of the “Golda on the Park” apartment building (Yaakov Rechter, 1994).

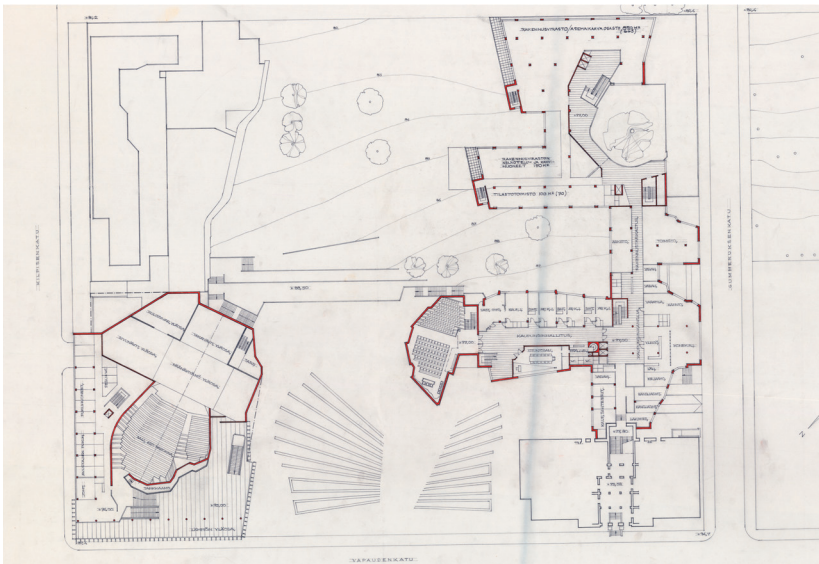


Fig. 6: Alvar Aalto, Jyväskylä Administrative and Cultural Centre, 1964; old town hall front right, new administration buildings and assemble hall behind it; Police Headquarters (1967), top left, and theatre (completed 1982) bottom left.

context, he attached himself not to a known typological urban lifeworld but to an abstraction of a specific cultural landscape.

The site plan for the Civic-Cultural Centre in Tel Aviv presented to Aalto comprised four distinct buildings, each designed by a different architect, set on a public plaza (Fig. 1). At that time, three of the buildings had already been completed: the Tel Aviv Palace of Justice (Yaakov Rechter, 1965) – described by its architect as “soft Brutalism”⁴⁹ – the Tel Aviv Museum of Art (Yitzhak Yashar and Dan Eytan, 1964–1971), and the Beit Ariela and Sha’ar Zion Library (Luphenfeld-Gammerman Architects, 1974). The fourth building reservation in the plan was for the Max Reinhardt Centre for the Performing Arts (Salo Hershman, 1969) but it was never built, and eventually built in its place was the Golda Center for the Performing Arts (1994), also by Yaakov Rechter, consisting of the Performing Arts Center, which includes the Israeli Opera, and two office buildings grouped around a rectangular plaza (Fig. 5).⁵⁰ The Rechter office was also responsible for the overall town planning, designing the open spaces and many of the significant buildings, and which included integrating the Golda on the Park apartment building (1994) into the public space, as well as coming up with the town planning guidelines for the extension to the Tel Aviv Museum. The theatre block finally culminated in the Cameri Theater (2003) designed by Amnon Rechter, son of Yaakov Rechter, the block ending in what the architect calls a “Corbusian” element, the white free-form Café Theatre, though in explaining the work he also states that Aalto is his “favourite architect”.⁵¹

In the design of the Golda Center for the Performing Arts, Yaakov and Amnon Rechter employed a range of recognisable elements associated with urban public space: the delineation of the building and how it turns its back on the surrounding city, the use of civic-minded monumental arched portals at the corners as well as a variety of materials and subdivisions in the articulation of the facades, the totality somewhat reminiscent of the influential design language proposed by Rob Krier, first published in 1975 as *Stadttraum*.⁵²

In his history of the site, Elhyani summarises this development as the interface between two urban paradigms, the modernist grid of the first buildings and a later 1980s postmodernist superposition, which included the introduction of a diagonal on the plot, even going as far as to say that such a postmodernist act “diminished the Museum of Art’s possibilities of rational extension ... in effect detracting from the civic and public interests in the complex in favour of the interests of other, private users.”⁵³ Judging by Aalto’s attitude to the design of cultural sites and even individual buildings, one can speculate about how he might have attempted to see his design for the Conservatory not as one more fragment of the larger whole but as something that would build the character of the site, shifting from distinctly urban and park-like sides, yet still seizing a feeling of the spontaneity of the situation (much as his Town Centre of Avesta [1944], the Cultural Centre for Wolfsburg [1962], Helsinki city centre [1959–72], Jyväskylä Civic Centre [1964], or the Urban Centre for Castrop-Rauxel [1965] had sug-



Fig. 7: Herta and Paul Amir building, Tel Aviv Museum of Art (Preston Scott Cohen, 2011) and Beit Ariela and Sha'ar Zion Library (1974).

gested), while still leaving opportunities for other future activities. In inheriting existing contexts, Aalto's insertions would even build up to an architectural climax that takes on an irregular, virtually crystalized shape, as for instance in the climatic or "apogeeic" elements proposed for the civic centres of Jyväskylä (Fig. 6) and as eventually built in Rovaniemi, albeit that the crystal form only occurs in two dimensions, the vertical lines never approaching the free form of, for instance, his Vuoksenniska Church (1958) or Kokkola Library (1966-71, unbuilt).

Buildings are the medium of architecture

These crystalline or apogeeic elements even share a family resemblance with one of the most recent additions to the site, the extension to the Tel Aviv Museum of Art (2011) (Figs. 5 and 7), the Amir building, designed by American architect Preston Scott Cohen. In discussions of the new extension, a viewpoint on alternative approaches to the site has been preserved in texts by Bruno Zevi, who was a judge in the first competition for the Museum of Art in 1964, won by Yitzhak Yashar and Dan Eytan. Zevi was a well-known champion of the works of Wright, Mendelsohn, Aalto and other exponents of what he regarded as "organic architecture", though based on the idea of human interaction rather than metaphor and mimicking natural forms.⁵⁴ Attending the inauguration ceremony on the opening of the new museum in 1972, Zevi gave thought to the new building, resignedly accepting of the final effort yet critical of the lost opportunity. He then imagines about twenty alternatives for the actual building, including Wright's Guggenheim Museum in New York and Mies van der Rohe's Neue Nationalgalerie in Berlin.

Looking at the overall site, he dismisses the idea of breaking up a site into parts, each one solved separately, a “method of the thirties... acceptable and nevertheless mechanical”.⁵⁵ His preferred solution was an “organic vision that integrates the parts as multifunctional complexes, an urban continuity”. His ultimate example of the latter is Wright’s Guggenheim Museum in New York, “a vital organism”, and concludes: “the cultural centre of Tel Aviv must be inspired by the Guggenheim Museum; it must go up into the context of the city and not restrict itself to constituting a compensatory factor.”

With the site reserve for the museum extension being a triangular-shaped plot, Cohen referred to a “Michelangelo approach” – a reference to his resolving of the given asymmetries and site difficulties of the Capitoline Hill in Rome, resulting in a masterpiece of Renaissance urban design – in “transforming difficult conditions in order to create new architectural forms.”⁵⁶ The analogy is fascinating because in his mature works Aalto could be said to be deliberately creating “difficult conditions”, that is, natural “cityscapes” in miniature, in the interior just as well as the exterior, in a sense mimicking slow-paced urban growth based on human need. This organicness was not scenography but a consequence he felt of the user-centredness of the layout, evident in such simple gestures as incorporating a bench-like ledge outside the entrance to public buildings.

Cohen “resolved” the conflict between the triangular site and the need for rectangular gallery spaces (an institutional or “architectural” typological given) with hyperbolic parabolas, creating a 25-metre deep spiralling atrium – and providing the building with a central motif and a new name, Lightfall. A product of an altogether different time than Aalto, Cohen stated that it also represented a synthesis between a museum as a container of neutral white boxes and the museum as architectural spectacle. Though I think Aalto would have refuted the latter stance – he described such spectacles as “the smell of Hollywood” – I would nevertheless suggest that in Tel Aviv Cohen has in a sense provided a building on the site with a similar sensibility as the one Aalto never got to design, that is, in Cohen’s words, architecture “constituted by buildings that contain institutional programmes” and a fundamental grasp of the presence of architectural history and its distortion by the predicament or circumstances. Cohen further argues that “architecture is the distortion of buildings”, that is, that buildings are the medium of architecture, just as paint is for painting.⁵⁷

Thus, for instance, in discussing balances and tensions between rectangularity and expressive diagonals, Venturi saw Aalto’s Neue Vahr apartment building in Bremen (1962) as a distortion of Le Corbusier’s Unite d’Habitation into diagonals in order to orient the dwelling units toward the south and the view.⁵⁸ But I would suggest that Venturi missed something by not suggesting that Aalto was also imposing on to Le Corbusier’s plan the motif of the classical theatre, which Aalto often used in his mature works in different forms and scales, from a table leg to a town plan. Critics have characterised Aalto’s mature architecture in various ways, for instance as heterotopic and painterly.⁵⁹ Aalto himself praised Andrea

Mantegna's fresco *Christ in the Garden* as "an architectural vision of a landscape" and a "synthetic landscape". Aalto's Villa Mairea, for example, has been described as a Cubist collage, but with each of the accumulated layers and textures held together by a sensual atmosphere.⁶⁰

In addition to providing the details of Aalto's commission to design the Israel Conservatory of Music in Tel Aviv, I have here discussed various themes prevalent in Aalto's late works, in the choice of materials or planning principles. Without any drawings, it is of course impossible to say what Aalto would have come up with or even how Tel Aviv itself might have inspired a new architectonic motif in his work,⁶¹ or even, if the building had been built, what influence it would have had on future architecture in Tel Aviv, as the client had hoped for.⁶²

Notes

1. Göran Schildt, *Alvar Aalto. A Life's Work. Architecture, Design and Art*. Keuruu: Otava, 1994.
2. It was also in 1973 that Aalto was commissioned to design the Midwest Institute of Scandinavian Culture in Eau Claire, Wisconsin, USA, and completed the design drawings without visiting the site. The building, however, was never built. Göran Schildt, *Alvar Aalto. A Life's Work*, 99.
3. The first version of the present paper was presented at the *3rd Alvar Aalto Researchers Network Seminar – Why Aalto?* Jyväskylä, 9-10 June, 2017.
4. On the relation forged by architectural historians between modernist architecture and Zionism see: Daniel Bertrand Monk, "Autonomy agreements: Zionism, modernism and the myth of a 'Bauhaus' vernacular", *AA Files*, 28, 1994, 94-98. See also: Alona Nitzan-Shifan, "Contested Zionism – Alternative Modernism: Erich Mendelsohn and the Tel Aviv Chug in Mandate Palestine", in Haim Yacobi (ed.), *Constructing a Sense of Place, – Architecture and the Zionist Discourse*. Aldershot: Ashgate, 2004 (original article, 1996).
5. Kenneth Frampton, "The Legacy of Alvar Aalto: Evolution and Influence", in Peter Reed (ed), *Alvar Aalto: Between Humanism and Materialism*. New York: The Museum of Modern Art, 1998, 137.
6. The main material for this essay was provided by letters originally held at the Aalto studio archives in Tiilimäki, Helsinki. This material is supplemented by short replies I received from the chief representative of the Israeli client, Menahem Meir (1924-2014), to whom I wrote in early 2008. Later that same year, on my behalf, then partly Finland-based Israeli architect Ze'ev Lipan phoned him and, based on my list of questions, received some details about the project, as discussed here. Due to a mishap, however, I received Meir's responses from him only in 2014. I sincerely thank him for communicating with Meir on my behalf.
7. There are no obviously missing letters in the chain of correspondence. Nor are there any references in the letters to phone calls. However, there is no record of Aalto's office informing Meir about Aalto's death or even of Aalto's office receiving a letter of condolence from Meir or the Conservatory.
8. Aalto had other design projects in the Middle East, some as part of larger "Western development" projects: an invitational competition for the design of the National Bank of Iraq head office, Baghdad (1955), which received no attention from the jury; an art museum in Baghdad, Iraq (1957); the General Post Office, Baghdad (1957), for which Aalto completed the designs, but was not built; the Sabbagh Urban Centre, Beirut, Lebanon (1964), comprising housing and commercial spaces, initially intended in collaboration with Swiss architect Alfred Roth but, according to Schildt, Roth completed the building with no input from Aalto; a Museum of Modern Art in Shiraz, Iran (1969), unbuilt; an urban centre for Jeddah in Saudi Arabia (1975-76), unbuilt. See Schildt, *Alvar Aalto. A Life's Work*, 38.
9. The issue of Aalto preferring to get on with the design rather than undertake architectural tourism is raised by Schildt; for instance, starting the first sketch designs of the Museum of Modern Art in Shiraz, Iran, while there in October 1969. In Schildt's words, "The hosts wanted to take him sightseeing, but he was completely uninterested. Only out of politeness did he go to see some mosques, contenting himself with viewing them from the outside." Göran Schildt, *Alvar Aalto. The Mature Years*. New York: Rizzoli, 1991, 315-316.
10. It was not until 2012 that the Conservatory would finally receive purpose-built premises, designed by architects Edna and Rafi Lerman, but at a different location, Stricker Street.
11. Schildt, *Alvar Aalto. The Mature Years*, 315-316. The Tel Aviv project receives no mention in Mina Marefat's article "Alvar Aalto and Modernism in the Middle East", in Mateo Kries and Jochen Eisenbrand (eds.), *Alvar Aalto – Second Nature*. Weil am Rhein: Vitra Design Museum, 2015.

12. Schildt, *Alvar Aalto. The Mature Years*, 315-316.
13. Meir communication, 2008/2014. In the communication, he was unable to name any of these projects. The implication, however, is that he visited the Finlandia Hall (first part completed 1971) during his trip.
14. In terms of the frontage and cityscape, the Mann Auditorium has similarities with the Royal Festival Hall, London (1951) by Robert Matthew, Leslie Martin and others, the latter acknowledging his influences from Aalto and Nordic architecture. However, Arie Kutz has argued that the building was one of many buildings in Israel at that time influenced by Japanese architecture; in this case the Kanagawa Music Hall (1954) in Yokohama by Kunio Maekawa. Arie Kutz, "Japanese architecture in Hebrew: The influence of Japanese architecture on Israeli architecture", Helena Grinshpun et al. (eds.), *IAJS Conference Proceedings, 2012, vol. 1*.
15. Encouraged by Mr. Meir, this information and picture material on the works of Gideon and Tova Ziv were provided by Dr. Amalia Ziv, their daughter (in a personal communication, September 2015), and to whom I express my sincere gratitude.
16. American architect I.M. Pei was involved in the Migdal Shalom tower project as an interior consultant.
17. The danger of attempting to read Aalto designs when there are no drawings is made evident in the case of Aalto's role in the Sabbag Center (1965) in Beirut, a project attributed to Alfred Roth. See: Roula El Khoury Fayad, "[Aalto in Beirut] Contribution, Collaboration and Continuity: The Case of Sabbag Centre", *Alvar Aalto Researchers' Network Seminar – Why Aalto?* 9-10 June 2017, Jyväskylä, Finland. El Khoury Fayad reads the building as if Aalto had made distinct design contributions to the project, even pointing out what she regards as Aaltoesque details, though there are no recorded drawings for the project by Aalto or any other documents showing his involvement, but rather with all drawings in the name of Roth.
18. Eeva-Liisa Pelkonen, *Alvar Aalto: Architecture, Modernity and Geopolitics*. New Haven, CT: Yale University Press, 2009.
19. Maija Kairamo, "Finnish Modernism: Future ideas and hard realities", in Ola Wedeburn (ed), *Modern Movement Scandinavia: Vision and Reality*. Århus: Docomomo Scandinavia, 1998, 59-60.
20. Juhani Pallasmaa, "Modernismissa on tulevaisuus", *Arkkitehti*, 5-6/1980, 48.
21. Monk, "Autonomy agreements", 95. Marina Epstein-Pliouchtch & Ron Fuchs, "Myth, history and conservation in Tel Aviv", in Dirk van den Heuvel et al, *The Challenge of Change: Dealing with the Legacy of the Modern Movement. 10th International DOCOMOMO Conference*. Amsterdam: IOS Press, 2008, 110.
22. The "Tel Aviv revival" is said to have started in the early 1980s with the exhibition "White City. International Style Architecture in Israel", curated by Michael D. Levin, accompanied by the book Michael D. Levin, *White City: International Style Architecture in Israel – A Portrait of an Era*. Tel Aviv: Tel Aviv Museum of Art, 1984 (2nd edition 1988). The travelling exhibition "The White City of Tel Aviv" visited the Museum of Finnish Architecture, 12.2.-30.3.2014. For a critique of the construction of the "White City" narrative see Sharon Rotbard, *White City Black City: Architecture and War in Tel Aviv and Jaffa*. London: Pluto Press, 2015.
23. Nitzan-Shifan, "Contested Zionism – Alternative Modernism", 17.
24. Unesco, "White City of Tel Aviv – The Modern Movement", *Unesco World Heritage Convention*, 2003: <http://whc.unesco.org/uploads/nominations/1096.pdf> [accessed 2.2.2016].
25. Arie Sharon, *Kibbutz+Bauhaus: An Architect's Way in a New Land*. Stuttgart: Karl Kramer Verlag, 1976. See also Rotbard, *White City Black City*, 18.
26. Levin, *White City*, 13, 45.
27. Ita Heinze-Greenberg, "I often fear the envy of the gods': Success, house and home"; in *Erich Mendelsohn: Dynamics and Function*. Ostfildern-Ruit: Hatje Cantz Publishers, 1999, 232. Levin also refers to Mendelsohn's "aristocratic manners" alienating many Palestinian architects. Levin, *White City*, 43.
28. Mendelsohn cited in Arnold Whittick, *Erich Mendelsohn*. London: Leonard Hill, 1956, 113.
29. Nitzan-Shifan, "Contested Zionism – Alternative Modernism", 41. Levin makes the point that later key modernists such as Zeev Rechter initially designed in an Oriental style, but later abandoned the idea. Levin, *White City*, 78.
30. Arie Sharon in a letter to Hannes Meyer, 15.12.1937. Zvi Efrat, *The Object of Zionism: The Architecture of Israel*. Spector Books: Leipzig, 2018, 134.
31. Sigfried Giedion, "Alvar Aalto", *The Architectural Review*, Feb. 1950, 77. Sigfried Giedion, *Space, Time and Architecture*. Cambridge, MA: Harvard University Press, 1949 (2nd edition), 60. Alvar Aalto, "Rationalism and man", 1935, in Göran Schildt (ed), *Alvar Aalto in His Own Words*. Helsinki: Otava, 1997, 92.
32. Levin, *White City*, 38. The form was partly determined, however, by the British clients' insistence on a strict division between a "British section" and a section for "natives". Heinze-Greenberg, "I often fear the envy", 235.
33. Gilbert Herbert, "Amiram Harlap: New Israeli Architecture", *JSAH*, XLIII: 4, Dec. 1984, 376.
34. Alona Nitzan-Shifan and Shira Sprecher-Segalovitz, "The Monumentality of the Everyday", in Yasha J. Grobman and Arielle Blonder (eds), *Five Moments: Trajectories in the Architecture of the Tel Aviv Museum*. Tel

- Aviv: Tel Aviv Museum of Art, 2011, E62-63.
35. Efrat, *The Object of Zionism*, 606-619.
36. Reyner Banham, *The New Brutalism: Ethic or Aesthetic*. Architectural Press: London, 1966. Anthony Vidler, "Troubles in Theory V: The Brutalist Moment(s)", *Architectural Review*, Feb. 2014, 96.
37. Alison and Peter Smithson, "Banham's Bumper Book on Brutalism", *Architects' Journal*, 28.12.1966, 1591.
38. Aalto's undated comments in Marefat, "Alvar Aalto and Modernism in the Middle East", 375.
39. This issue of the reference of Finnish architects to the "south" I have discussed elsewhere. See G. Griffiths, "Finlandia: El sur y los símbolos de enculturación", in *Nórdicos*, DPA 26, Barcelona: UPC, 2010, 34-41.
40. G. Griffiths, *The Polemical Aalto – Alvar Aalto's Enso-Gutzeit Building*. Datutop 19, Tampere: Tampere University of Technology, 1997, 34. Kirmo Mikkola, "Suomalaisen arkkitehtuurin ajankohtaisia pyrkimyksiä", 1969, in Jorma Mukala (ed.), *Arkkitehtuuriliinjoja – Kirmo Mikkolan kirjoituksia*, Helsinki: Rakennustieto, 2009, 19.
41. Marefat, "Alvar Aalto and Modernism in the Middle East", 368.
42. Eeva-Liisa Pelkonen, "Symbolic imageries: Alvar Aalto's encounter with modern art", in *Alvar Aalto – Second Nature*, 123.
43. Alvar Aalto, "Speech in São Paulo, 1954" and "Oscar Niemeyer's house near Rio De Janeiro", in Schildt (ed), *Alvar Aalto in His Own Words*, 138-139.
44. H. Segawa, "Oscar Niemeyer: A misbehaved pupil of rationalism", *Journal of Architecture*. Vol. 2, 1997, 291-312.
45. Zvi Elhyani, "Horizontal Ideology, Vertical Vision", in Yacobi (ed.), *Constructing a Sense of Place*, 89-115.
46. Aalto's guide in Spain in 1951, Francisco Preto Morena, reported: "Aalto ... is interested in the spontaneous planning of villages and small towns, especially in the mountains. In the days that followed, he repeatedly asked us to show him 'villages rooted in the soil', as he put it." Schildt, *Alvar Aalto. The Mature Years*, 149.
47. Elhyani, "Horizontal Ideology", 112-113.
48. Robert Venturi, *Complexity and Contradiction in Architecture*. New York: MOMA, 1966, 50.
49. Ram Karmi, "Israeli Brutalism", in Zvi Efrat (ed.), *The Israeli Project: Building and Architecture 1948-1973*. Exhibition, Tel Aviv Museum of Art, 2004: <http://www.efrat-kowalsky.co.il/texts/the-israeli-project/> [accessed 1.9.2016].
50. Zvi Elhyani, "Tel Aviv, Block 6111, Lots 819, 820, 827 (Parts): A critical chronicle", in Meira Yagid-Haimovici (ed.), *A New Building: Tel Aviv Museum of Art. The Herta and Paul Amir Architectural Competition*. Tel Aviv: Tel Aviv Museum of Art, 2004, 76. In his history of the site, Efrat seems unaware of the Aalto project.
51. Amnon Rechter, "My Tel-Aviv. The Cameri Theater". *Architectural Record*, February 2016: <https://www.youtube.com/watch?v=dwZAP09RIR4> [accessed, 1.9.2016].
52. Rob Krier, *Stadttraum in Theorie und Praxis*. Stuttgart: Karl Krämer, 1975. Translated into English, French, Italian and Spanish. English translation: *Urban Space*. London: Academy Editions, 1979.
53. Elhyani, "Tel Aviv, Block 6111", 76-77.
54. Bruno Zevi, *Towards an Organic Architecture*. London: Faber & Faber, 1950, 60, 72-75. A few others have also made connections between Aalto and Mendelsohn and other figures such as Scharoun and Häring; e.g. Colin St. John Wilson, *The Other Tradition of Modern Architecture*. London: Black Dog Publishing, 2007.
55. Bruno Zevi, "The architecture of the museum", *Ariel* 25, 1972, 27-30. Reproduced in Yagid-Haimovici (ed.), *A New Building*, 87-89.
56. Preston Scott Cohen, "The route to a building", in Yagid-Haimovici (ed.), *A New Building*, E18-19.
57. Preston Scott Cohen, *Taiyuan Museum of Art*. Source Books in Architecture 11. San Francisco, CA: AR+D Publishing, 2017, 11-12. See also Preston Scott Cohen, *Contested Symmetries: The Architecture and Writings of Preston Scott Cohen*. London: Laurence King, 2001.
58. Venturi, *Complexity and Contradiction in Architecture*, 50-51.
59. Demetri Porphyrios, *Sources of Modern Eclecticism: Studies on Alvar Aalto*. London: Academy Editions, 1982, 1-8. Juhani Pallasmaa, "From tectonics to painterly architecture", in Pirjo Tuukkanen-Beckers (ed.), *Alvar Aalto: Points of Contact*. Jyväskylä: Alvar Aalto Museum, 1994, 36-47.
60. Aalto, 1926, as quoted in Pallasmaa, *ibid*.
61. In regard to Aalto's later design approach, Kirmo Mikkola argued that in his last years Aalto's architecture became eclectic; while Aalto himself made the initial design concept, it was then passed to his assistants, who would interpret the drawings using motifs typical for Aalto's previous works, especially the fan motif. Kirmo Mikkola, *Aalto*. Jyväskylä: Gummerus, 1985, 84.
62. In terms of Aalto's influence on architecture in Israel, he receives just a few minor references in Inbal Ben-Asher Gitler and Anat Geva (eds), *Israel as a Modern Architectural Experimental Lab, 1948-1978*. Bristol: Intellect, 2020. Most notably, Naomi Simhony notes a "striking resemblance" between the Heichal Yehuda Synagogue (1972-80) by Yitzhak Toledano and Aharon Rousso and Aalto's Church of the Holy Spirit Church in Wolfsburg, Germany (1962), in *ibid*. 187.

EKISTICS: DESIGNING WITH QUANTIFICATION AND CREATIVITY

Bernhard Langer

The following essay investigates the idea of thinking of architecture not as a designed artefact, but, more abstractly, as a nodal point within much larger networks. Such a notion was popular in the “structuralist”-labeled movements in design, architecture and urban planning of the 1960s, which was vaguely based on Claude Lévi-Strauss’ structuralist anthropology.¹ This essay deals with a different approach to viewing architecture in a structuralist way, with the movement called “Ekistics”, founded by the Greek architect and planner Constantinos Doxiadis (1913–1975).

Ekistics

The concept of *Ekistics* was shaped during Doxiadis’ early career at the Greek Ministry of Public Works. During and after the German and Italian occupation of Greece (1941–1944), Doxiadis worked on a comprehensive record of all war and occupation destruction throughout Greece, which resulted in the formulation of an overall reconstruction plan, both for settlement reconstruction and for the more general economic recovery of Greece after the war. Although in this work the term “Ekistics” had not yet been coined, what emerged at that time was both a tendency towards a global approach and an interest in integrating people and environments in a comprehensive system.² The title for this endeavor favored by Doxiadis at that time was *Chorotaxia*, meaning “bringing order (*taxis*) to space (*choros*),” which represented an attempt to translate the German term *Raumordnung*.

In 1951, Doxiadis went to Australia and founded an increasingly successful design office (*Doxiadis Associates*) which grew so rapidly that ten years later (Fig. 1) he could present a diagrammatic map of the world showing all of the firm’s realized projects – including buildings, infrastructures, urban plans and regional studies – on the cover of the journal *Ekistics*. The birth of the journal dates back to 1954 when Doxiadis met Jaqueline Tyrwhitt at the first U.N. International Symposium on Housing and Community Planning in Delhi, India. They agreed that there was a need for a journal directly aimed at keeping architects and planners in developing countries up to date with relevant professional expertise elsewhere in the world. From October 1955 onwards, the magazine appeared on a monthly basis.

The term itself derives from the Greek “*oikos*”, meaning “house”, and aimed to respond to the totality of human needs across cultural, geographic, and socio-economic differences. The definition, printed on the flipside of the title page of each journal during the first years, reads: “The title Ekistics comes from the Greek verb *oiko*, meaning settling down, and demonstrates the existence of a “science of human settlements” conditioned by man, influenced by economics, sociology, geography and technology.” *Ekistics*, as a method and field of knowledge, was conceived as a means to systematize and synthesize the immense amount of knowledge about all aspects concerning human settlements, at every scale and from each conceivable scientific point of view. With its ability to unify and order knowledge, it would provide a “total program for human settlements,” as opposed to dealing with isolated problems.³

Eager to realize and institutionalize his visions, Doxiadis first tried to convince the United Nations Economic and Social Council (ECOSOC) to found an independent international organization for human settlements,⁴ and soon afterwards took the matter into his own hands. In July 1963, he organized and funded his own conference, which would become an annual event. For the first conference, he brought together thirty-four leading scientists, architects, engineers and administrators from twelve countries. It took place on a ship, *New Hellas*, cruising the Aegean, with the island of Delos as the final destination. It was modeled after the famous 1933 CIAM meeting (which also took place on a cruise ship that traveled from Marseille to Athens) – the resulting “Charter of Delos” was to replace the 1933 “Charter of Athens”. This link was underlined through the participation of Sigfried Giedion and Jaqueline Tyrwhitt.⁵ Other notable participants included Buckminster Fuller, Marshall McLuhan, Margaret Mead, and Barbara Ward. Among the disciplines represented were agricultural science, biology, geography, history, philosophy, physics, sociology, architecture and urban planning. The sociologist Eiichi Isomura, who was then also director of the Japanese bureau on planning and social development, attended, as did several UN officials and government officials from various countries. This composition of participants underlined both the international and interdisciplinary nature of the project, and the presence of government officials reflected Doxiadis’ urge to ally the planning profession with decision-making power, a fact which was praised by Giedion himself.⁶

After working for several days on a common declaration, a version was formulated that all participants were able to support: on the final day the group met at the ancient theater of Delos, a place that recalled the archaic and ancient roots of Western Philosophy, and the signing of the declaration was celebrated as a theatrical event, a “great drama.”⁷ (Fig. 2)

From Ecumenopolis to Anthropocosmos

The most striking feature of Doxiadis’ vision is to think about human settlement at the largest possible scale, by gathering and domesticating enormous amounts of

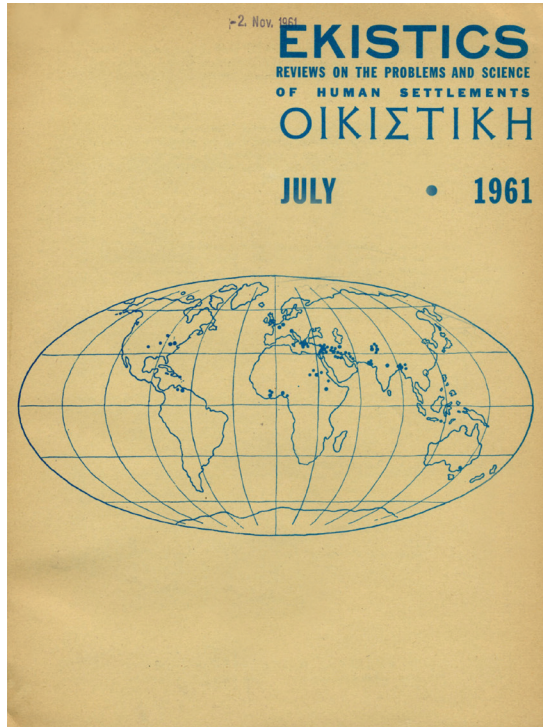


Fig. 1: Cover of Ekistics magazine, *Ekistics* 69, Vol. 12, July 1961.



Fig. 2: "Siegfried Giedion on his way to sign the Delos declaration," 1963.

THE EKISTIC GRID

COMMUNITY SCALE		i	ii	iii	IV	V	VI	VII	VIII	IX	X	XI	XII			
EKISTIC UNITS		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ELEMENTS	NATURE															
	MAN															
	SOCIETY															
	SHELLS															
	NETWORKS															
SYNTHESIS																
POPULATION		1	2	4	40	250	151	71	501	3001	24	14 ^m	100 ^m	700 ^m	5000 ^m	30,000 ^m
T (Thousands) M (Millions)																

Ekistic Logarithmic Scale

Fig. 3: "The Ekistic Grid." *Ekistics* 164, vol. 28, July 1969.

information of a heterogeneous kind and origin. This is why courses in statistical analysis became "indispensable" for architectural training. Already in 1961 he formulated the idea of *Ecumenopolis* (another neologism, deriving from gr. *Oikumene*, "world", and *polis*, "city") in a report⁸ that proclaimed that the expansion of cities was irreversible and that the evolution from contemporary cities to a globally interconnected network of cities was irreversible. *Ecumenopolis* is the physical joining together of all urban regions to ultimately create a global system of urban concentrations covering the whole earth. He projected that *Ecumenopolis* will have taken shape when humanity reaches its maturity by the end of the 21st century. He called for architects and planners to take charge in planning for this dramatic urban expansion. The agenda placed emphasis on economical housing, social services, local materials and efficient urban infrastructure, and included ecological and environmental concerns. It called for a comprehensive management of land, resources and settlement growth in order to prevent the depletion of resources.⁹

The concept of *Ecumenopolis* represents a revision of Doxiadis' earlier vision of a planetary network of cities. Not only cities or urban areas, but also the nonurban or not built-up world constitutes a network – of forests, lakes, deserts, etc. The non-urban world is now called *Ecumenokepos* (world-garden), which signified a much closer interdependence with *Ecumenopolis*. The global network of human settlements became part of "the larger system of living creatures," and this idea was extended to a conceptualization of the whole system in terms of a biologi-

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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
EXISTIC UNITS															
NATURE															
MAN															
SOCIETY															
SHELLS															
NETWORKS															
SYNTHESIS															

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SYNTHESIS															

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URBAN SYSTEMS AND URBAN
FORM

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COMMUNITY SCALE	1	II	III	4	5	6	7	8	9	10	11	12	13	14	15
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
EXISTIC UNITS															
NATURE															
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SYNTHESIS															

Ekistic Logarithmic Scale

Fig. 4: Contents of *Ekistics* vol. 28, July/December 1969.

cal entity. It may be that Kenzo Tange, whose Tokyo Bay project was discussed in *Ekistics* 1966 and which portrayed human settlement as a “nervous system,” played an important role for Doxiadis in this regard.¹⁰

But even *Ecumenopolis* was not the largest entity to think about, it was the all-encompassing *Anthropocosmos*. *Anthropocosmos* – “The World of Man” – is the name of the “system of life” within which we live. Our task is, writes Doxiadis 1974, to define the system of our life expressed by human settlements so clearly that it can contain every part, aspect, expression or opinion, “known or unknown, foreseen or unforeseen.”¹¹

The Ekistics Grid

The central element of the classificatory scheme devised to represent the “system of life” is the “Ekistics Grid.” This classification form was used from 1965 onwards and was supposed to codify virtually everything as a visual pattern within a grid. It is a generic frame through which everything from personal character to global activity can be monitored, as seen for example in the contents of the various *Ekistics* magazines themselves. (Figs. 3-4) In principle, it is a radical extension of the CIAM Grid that Le Corbusier presented in 1949.¹² The precondition for the Ekistic Anthropocosmos Model is, as with any chart, that all phenomena of interest can be quantified, and “if we have no method for the quantification of the phenomena we are interested in, we must devise one.”¹³

The main partition of the Ekistics Grid represents a kind of universal deep structure, which reflects the totality of human needs, called “Ekistic elements.” These elements are, in the order of their creation: Nature, Man, Society, Shells and Networks. Each of these elements can be subdivided into a different number of categories (ranging from 20 to 96). Nature, for example, can be subdivided into water, climate, geology, geomorphology, flora, fauna, each of which has different aspects (in turn, climate, for example, depends on temperature, humidity, rain, wind, etc.). Each of these categories can be cross-referenced with other classificatory schemata, called Ekistic units, Ekistic functions, evolutionary phases, factors, disciplines and others.¹⁴ Man, for example, can be represented in 12 phases of life and consists of 8 aspects – body, five senses, mind and soul. These two classificatory systems alone result in 96 categories (8 times 12), which means the individual man can be represented by 96 components. In sum, there are 258 components for all five primary elements, and since every single position within the Ekistic Anthropocosmos Model is related to each other, there are 66.000 relations to consider; but other layers must be added, such as ways of actions, values of man (economic, social, cultural, political, etc.), scientific disciplines (biology, cultural sciences, technology, etc.), which finally results in a system of more than 100 million parts, which is relevant for each settlement unit at each scale.¹⁵ (Fig. 5)

Fig. 6 shows the result of field work by nine different contributors to the Ekistics group, showing different investigations of different aspects of a settlement – e.g.

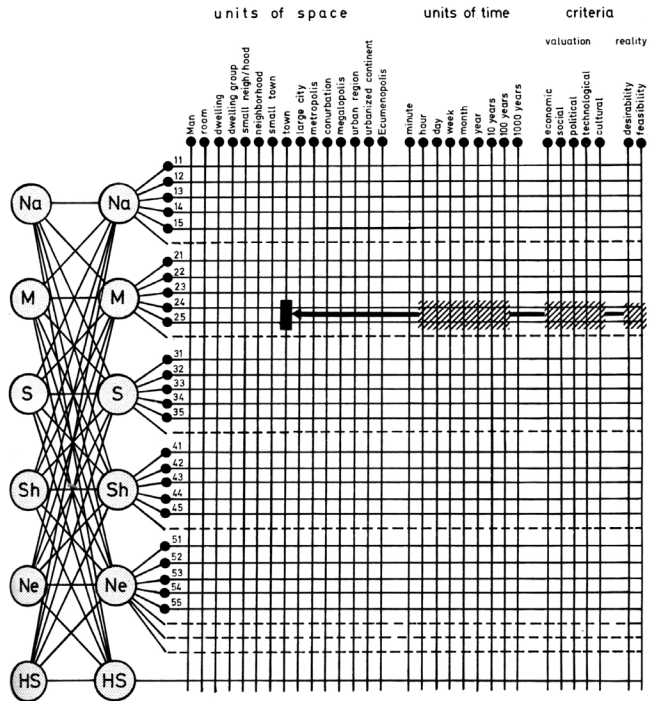


Fig. 5: Part of the Anthropocosmos Model: N – Nature / M – Man / S – Society / Sh – Shells / Ne – Networks / HS – Human Settlements. *Ekistics* 209, vol. 35, April 1973.

the perspective of an infant, his biological needs and special areas; the perspective of a child with respect to poverty, economics, etc. The first diagram (labelled DINOS D) shows the coverage of the areas of Doxiadis' forty years of work, whereas the second diagram (labelled GABOR) shows how Dennis Gabor spoke about the multi-generation house, and about small and big towns. But also other, less palpable aspects of life are being traced in the diagrams: Margaret Mead's model (labelled MEAD) speaks "about giving a sense of the shared sky, children exposed to adults, preparing children for the city, man mobbing to the town, and real community formation."¹⁶ Fig. 7 shows a synthesis of what all have seen and said.

The utopian and technocratic idea behind this is that if enough information has been collected, enough charts and diagrams have been drawn up, the design of spatial patterns would flow automatically from the patterns in the flow of information between these myriads of (causal or non-causal) relationships in the "deep structures" of humanity – an idea that was heavily pushed by the new possibilities of electronic data processing.¹⁷ Doxiadis stated: "Through continuous classification we have reached the point where the total model of the Anthropocosmos ...

Fig. 12

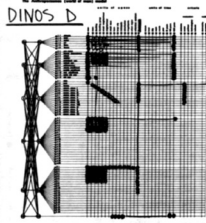


Fig. 13

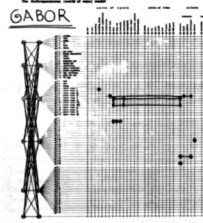


Fig. 14

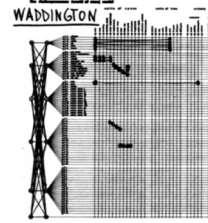


Fig. 15

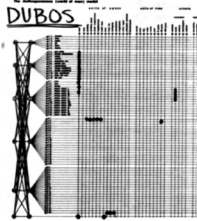


Fig. 16

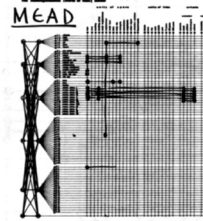


Fig. 17

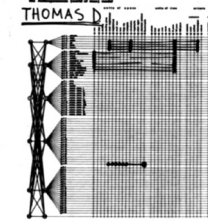


Fig. 18

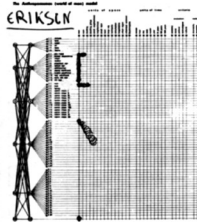


Fig. 19

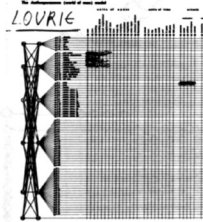


Fig. 20

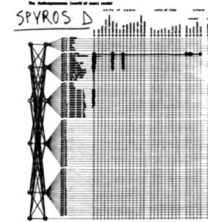


Fig. 6: Part of the Anthropocosmos Model, *Ekistics* 209, vol. 35, April 1973.

can help us to conceive the ideal yet feasible human settlements that we need.”¹⁸ The ultimate goal is nothing less than human happiness.

Is this construction of a universal, time- and contentless structure anything more than a scientific fantasy? In fact, the Anthropocosmos model, referred to as “total model”, “total image”¹⁹ or “total system of life” is only a small piece of the praxis of Doxiadis and other ekisticians. The Ekistics movement consisted of much more: symposiums, interdisciplinary dialogue, poetry, extravagant ideas, politics, research, field work, rituals and performances, interviews and the conduction of real projects on every scale and in almost every field including rural settlements, agriculture and irrigation, industrial settlements, manufacturing, power and public works, commerce and tourism, transportation and communications, housing, urban renewal and development of new cities.

The Anthropocosmos (world of man) model

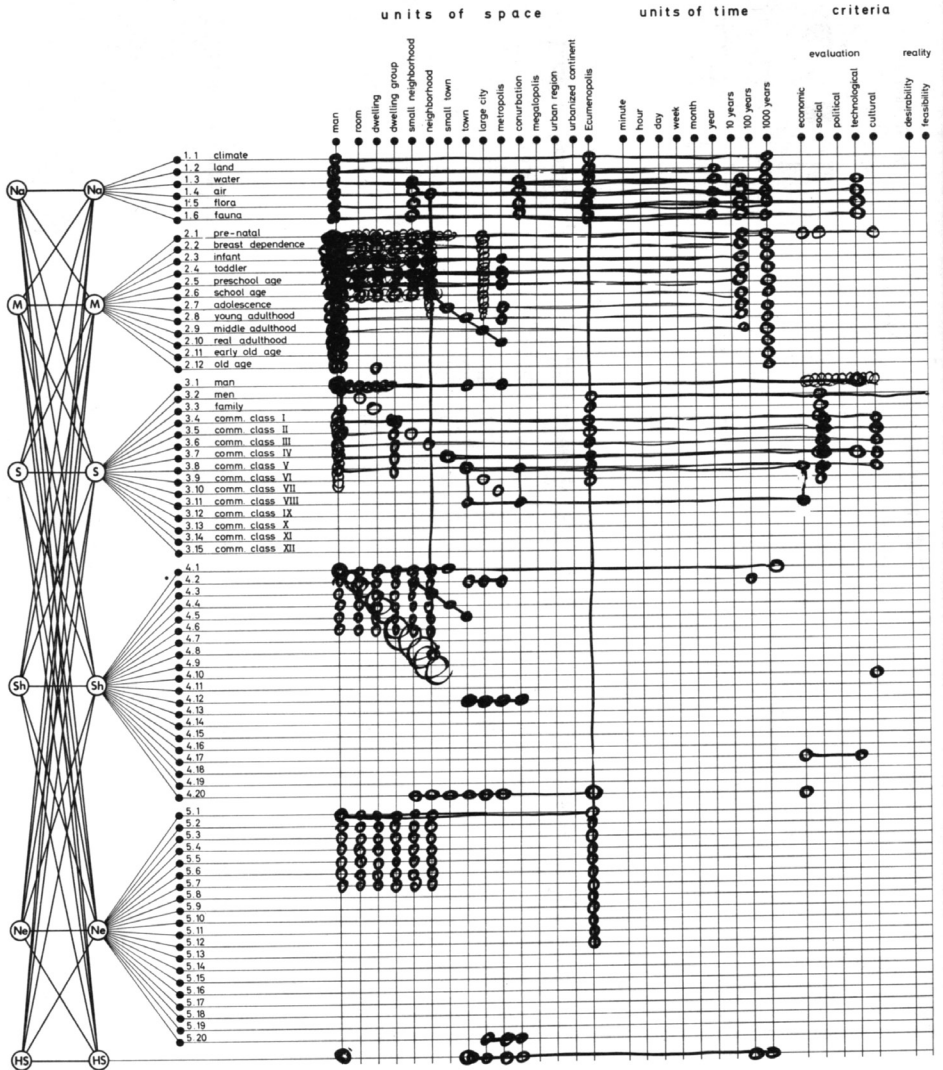


Fig. 7: Part of the Anthropocosmos Model, *Ekistics* 209, vol. 35, April 1973.

The structuralist aspect of Doxiadis' work is not so much the supposition of a timeless and universal structure, in which everything has its place and every node is connected to every other one. Rather, it lies in the way of thinking with or through these structures, in trying to fill them with heterogeneous information, thereby relating disparate fields to each other. It is certainly not a scientific approach. It is more like a practice-based strategy, in which the human subject is dispersed in structures and connections, unable to overlook them, but still creating effects on reality. It is the inherent quality of richness and plurality in Doxiadis' thinking which would be unfortunate to lose, given today's degree of connectivity.

Notes

*This paper is an abridged and modified version of the paper "Constantinos Doxiadis. Thinking in Structures and the Claim for Objectivity in Architecture", in Tomáš Valena (ed.), *Structuralism Reloaded: Rule-Based Design in Architecture and Urbanism*. Stuttgart: Menges, 2011, 53-61.

1. See Arnulf Lüchinger, *Strukturalismus in Architektur und Städtebau = Structuralism in Architecture and Urban Planning = Structuralisme en architecture et urbanisme*. Stuttgart: Krämer, 1981.

2. See John G. Papaioannou, "C.A. Doxiadis' early career and the birth of ekistics," *Ekistics* 430, vol. 72, 2005, 13-17.

3. Constantinos Doxiadis, "A Total Program for Human Settlements," *Ekistics* 93, vol 16, August 1963.

4. See the report of the United Nations Committee on Housing, Building and Planning, in *Ekistics* 90, vol. 15, May 1963, 251ff; Panayiota Pyla, "Planetary Home and Garden: Ekistics and Environmental-Developmental Politics," *Grey Room* 26, Summer 2009, 6-35, see 10f.

5. See Ellen Shoshkes, "Jaqueline Tyrwhitt: a founding mother of modern urban design," *Planning Perspectives* 21:2, 179-197, see 184ff. See also Mark Wigley, "Network Fever," *Grey Room* 04, Summer 2001, 82-122

6. The presence of high officials and presidents represents "a fundamental change in the attitude of responsible decision makers (...). This is the greatest compliment I can offer to this distinguished Assembly." Sigfried Giedion's contributory paper, *Ekistics* 95, Vol 16, October 1963, 255-257, see 256.

7. "The Delos Symposium," *Ekistics* 95, Vol 16, October 1963, 205-210, see 207.

8. C.A. Doxiadis, *Ecumenopolis. The Settlement of the Future*. Athens: Athens Center of Ekistics, 1967 (reprint).

9. See Pyla, "Planetary Home and Garden," 10ff.

10. On the biological imagery in Doxiadis' project see Mark Wigley, "Network Fever."

11. C.A. Doxiadis, "Action for human settlements," *Ekistics* 241, Vol. 40, December 1975, 405-448, see 428.

12. Le Corbusier, "Description of the CIAM Grid," in J. Tyrwhitt, J. L. Sert, and E. N. Rogers (eds.), *CIAM 8: The Heart of the City: Towards the Humanisation of Urban Life*. London: Lund Humphries, 1952, 171-76.

13. Doxiadis, "Action for human settlements," 439.

14. See, for example, C.A. Doxiadis, *Ekistics: An Introduction to the Science of Human Settlements*. London: Hutchinson, 1968, 34ff.

15. For these numbers see *Ekistics* 209, April 1973, 234.

16. *Ekistics* 209, April 1973, p. 235.

17. See Wigley, "Network Fever," 82-122, 96-100.

18. Constantinos Doxiadis, "Action for a better scientific approach to the subject of human settlements: The Anthropocosmos model," 1974: <https://www.doxiadis.org/Downloads/The%20Anthropocosmos%20model.pdf> (accessed Jan. 2018), 9.

19. Ibid.

MEDIA ARCHITECTURE IN PUBLIC SPACES: MEDIA OR MONUMENTS?

Oliver Schürer

Introduction

Increasingly, media content in public space is being displayed digitally. Attention is being paid in particular to movement: whether as an image or text, the size, speed and omnipresence of media content are transforming the character of public space. It seems that the apex in this wave of mediatizing public spaces has not yet been reached – the necessary media literacy does not yet exist, and probably can not be expected at all, from the first generation confronting it. Nevertheless, some consequences for public spaces are already apparent: localization and site-specificity as well as representation and functionality are placed into new contexts. The balance between the local and the global, or the private and the public, is out of control. The results are radical reinterpretations of categories that today are still perceived as local and specific cityscapes, understandable spatial structures, traditional modes of behaviour or parameters of usage. Whether they are economic, social, cultural, geographic, architectural or urban-planning structures, under the influence of media they are all transformed into new configurations. Mediatized components of buildings replace the original media scales. Heterogeneous media concepts constantly cancel each other out. Formerly passive media consumers become active users or even co-producers. All these are ingredients which destabilize the fragile amalgam of public spaces, yet consequently enriching them, reinterpreting them and bringing about socio-cultural change. Thus, the massive presence of media in public spaces forces us to redefine the traditional structures of the city and architecture.

This development is not without precedent. The introduction of artificial lighting in public spaces, soon accompanied by advertising, led to the development of the iconic image of the modern city. Technological changes also enabled social groups to develop new urban forms of behaviour, such as late theatre and cinema performances or shopping after the onset of darkness.

The changing qualities, functions and atmosphere of public spaces, the new characteristics of their venues – such as a new consumer orientation – events, festivals, demonstrations, activism, recreational activities and surveillance, are changing the concepts of architecture and urbanism, as well as the methods with which they are being developed. How is this happening?

*

Media architecture

In many of its manifestations, architecture has been expanded into media architecture. In general, this means the integration of digital media interfaces into components of architectural objects. One of the possibilities of meeting the challenges connected with that is to regard this new form of architecture as hybrid architecture.¹ The hybrid components can be found in screens and lighting elements which are not simply attached to buildings but integrated into the architecture. Yet it seems difficult to show what is essential in architecture and how this essence has over time become hybrid. Since this is a purely technical argument, does there exist a technology that is a specific architectural technology? Buildings are of course technical assemblages consisting of numerous technologies.

The process of integrating lighting elements into buildings is no different than integrating the many technologies which were given a function in buildings throughout the course of architectural history. Thus, the term 'hybrid architecture' is not really suited to describe these circumstances. Nevertheless, it is an understandable term to express our contemporary bewilderment. Because the history of the mediatization of architecture is still rather thin, dating back to the 1920s and partly to the early utilization of electricity, the developments all seem to be surprisingly new. In actual fact, the only thing that is "new" is the mass appearance of media architecture, the diversity of its artefacts and the digital cross-linking with global media infrastructures. That is why in the present turbulent contemporary transitional phase there is no standardized terminology, no differentiating codes to solve certain planning and design problems, and no established reception behaviour for evaluating media architecture. Any discussion on the subject is characterized by fractures, dogma and misunderstandings.

These conflicts have their own distinct character, encompassing both theory and practice, the utilization of technologies, urban policy, urban planning, standards and statutory regulations, to name just a few. Also, it must not be forgotten that the development of media architecture is affected not only by technologies related to the buildings' exterior (facades, lighting and kinetic elements) but also in the building interior (entertainment, comfort, safety, etc.). Advocates are still calling everything "cool" that is simply new, while opponents are still calling everything "bad" that consumes electricity. The current discussion is similarly polarized as it was with the emergence of the modern age, and the invention of motion pictures or modern building materials. There is a mutual somersaulting of hopes, fears, prejudices and dreams.

Public spaces

In the classical understanding of architecture, public spaces were central meeting places for a civil society where political and economic life, social intercourse and debate took place. They were conceived materially and spatially as representational

architectural assemblages complementary to private space, as an external network of streets and squares stretching between homes, the church, the town hall and the market. The community that developed in these spaces comprised an ideal society of citizens leading toward a progressive enlightenment – a European idea that developed in opposition to the aristocratic feudal regimes. Yet social groups such as women, adolescents, workers and the poor had limited opportunity to participate in these spaces. A misconceived and sentimental interpretation of those championing public space is to think that this is how things were in the agora of antiquity.

It was from this perception of a society with relatively few differences that Jürgen Habermas developed the concept of the *public sphere*, and thus also the bourgeois connotation that this ideal image represents bourgeois values.² All sorts of “counter-cultures”, such as the labour movement, the civil rights movement, youth culture and the feminist movement, as well as the development of the western consumer and leisure society, changed the problematic connotations. Today, public spaces are regarded as being limited by economic interests and commercialized by event culture, and thus face decline and disappearance, for instance due to the fact that some of their functions have been shifted to the digital media. According to Rem Koolhaas and his co-authors of the *Harvard Design School Guide to Shopping* (2001), shopping remains the last form of public activity: “In the end, there will be little else for us to do but shop.”³

Contrary to that view, however, it can be argued that contemporary development represents a shift of functions and values rather than a scenario of loss. The concept of “public space”, which used to be rather static, has become a processual form of socio-cultural representation. The downside is that many of the possible encodings of these fragments are also used to homogeneously prevent the overlapping of usage and the formation of bottom-up identities, and subsequently dominate certain attractive niches in these public spaces. Thus, the possibility of cross-linking is by no means an invitation, let alone a compulsion.

What the term “public space” does not express are the conditions of dominance and resistance, and thus despite any fractions enables public cohesion and the interconnectedness with other spaces. On the other hand, the term clearly conveys the general distinction from private space – albeit a now obsolete juxtaposition due to the postmodern definition of public space informed by diverse cultures and technologies.⁴ All kinds of identity concepts are presented in public space in order to offer recognizable images of specific cultural associations. These images can relate to all kinds of things, like values, lifestyles, mentalities, age groups, etc. The resulting spaces of varied associations and network-like communications are heterogeneous and fragmented. Instead of talking about a common “public sphere”, it might now be more appropriate to talk of many public spheres. It is where those public spheres converge, where they live and act according to their specific behavioural patterns, that we can talk of as public space.

The media content of digital interfaces in public spaces is hardly able to express the associated contradictions. The media convey the messages of the “big players” who possess the capital and power for a digital public display. The fractures between the haves and have-nots remain invisible in being successfully channelled by the traditional discourse about “art in public spaces”, and are regarded as a confrontation between advertising and art. Yet this directly bypasses the subject. Can there be no other juxtaposition than “Arts & Ads”?

These shifts are among the reasons why the traditional focus of architecture on the design and planning of space-forming elements and representation has been extended to include the creation of social and public interaction. What methods and possibilities can creative architects provide for this and how can the existing means be expanded?

It is interesting to observe how a group of technologies becomes media. Some very recent and some very old technologies are being merged and transformed. Information technology and construction technology merge to become a new kind of construction technology and components of media architecture. Even though architects do not directly develop this technology, how can they influence the renewal of the technology?

Arts & Ads

It is a common practice to combine commercial and artistic contents when compiling programs for changing urban screens and media facades. Displays marking commemorative occasions and events sit alongside presentations of artistic works to create a public spectacle. For many artists, the attraction is to be able to show a kind of public television *on* rather than *in* buildings. It is argued that this is a way of programming public spaces to make them the same as private spaces, to create a new kind of radical interior. People want personal experiences in public spaces, and this is now possible by entertaining them with instruments such as media facades, and to challenge them to interact. It therefore follows that media facades enrich urban citizens’ public spaces.⁵

An objection to this argument is based on the increasing visual contamination of urban spaces. But what is achieved if the same concepts are used for programs of media content in public spaces as have already penetrated private spaces? Does the elimination of the dichotomy between public and private only mean that the private is now public and vice versa? The problem is not just the advertising aspect. The creation of the close-viewer communication typical in television, using a virtual dialogue with “talking heads”, becomes a short-term monument in public spaces due to a shift in scale. The action is still unilateral communication, but the intimate relationship between the speaker and viewer becomes imperative. In addition, due to the context, artistic works become trivial

objects of daily use, and these are used only to convey the totality of the media program. It is not even the purpose of the balance between advertising and art in public interfaces to make the interfaces culturally acceptable. In the words of Georg Franck, “A mass medium must not be choosy in selecting the means with which it attracts attention.”⁶ Art is simply abused as a method of circumventing the individual attention filter that forms an “economy of attention”. Media art in public spaces is not meant to offset advertising or commercial contents, and does not even form a distant relationship with it, but simply is part of the global economic situation. If there is ever an increase in large-format media interfaces in public spaces, then there will be calls for regulating the programs, and these will likely lead to access for non-profit organizations and contents pertaining to an extended public interest.

However, if the focus lies exclusively on architecture as an information surface, what gets neglected is the fact that architecture can convey messages and narratives not only via its surfaces, but also in particular via the specific design of spatial structures. The architectural theoretician Gerd De Bruyn uses the example of the medieval cathedral to describe the communicative potential of architecture.⁷ The cathedral communicated the Christian message not only through images on its surfaces, but also through its spatial program and its spatial structure. Modernist architecture similarly communicates its message (such as progress, technology, efficiency and rationality) by means of simple geometrical forms, raw industrial surface materials, new spatial programs, and flowing open structures. Even the famous slogan ‘Ornament is a crime’ by Adolf Loos became a powerful narrative of modern architecture. Kari Jormakka argued – referring to the use of particularly textured surface materials – that the entire discourse of modern architecture can be understood as a project serving exclusively for the rehabilitation of ornamentation.⁸ This also expresses a connecting point that can be used in further developing the methods of media architecture. But what then are contemporary ornamental contents meant to express? Are they meant to convey news, warnings of terrorism, sports results, surveys, traffic reports, infrastructural activity patterns, political relationships, visual interaction between pedestrians, as well as the inevitable weather report?

In spite of all the heterogeneity in the media arts, there is, according to Lev Manovich;

One trajectory that can be traced in 20th century art that runs from the dominance of a two-dimensional object placed on a wall, towards the use of the whole 3-D space of a gallery. [...] If we follow this logic, augmented space can be thought of as the next step in the trajectory from a flat wall to a 3-D space, which has animated modern art for the last hundred years. For a few decades now, artists have already dealt with the entire space of a gallery: rather than creating an object that a viewer would *look* at, they placed the viewer *inside* the object.⁹

In a certain sense, media art has adapted architectural means and radicalized them, changing from viewing to experiencing. Comparable with this is the circumstance that media architecture regards its users as embedded in an urban space formed of dynamic contextualized data, in which they interact on an equal footing with others. A counter-argument is that an urban space is not a protected, temporarily maintained, static, semi-public space such as a gallery or an art event, but rather a public space in a constant state of change.

If such arguments from artistic discussions are combined with questions about using public space for performances, then it quite often leads to rather questionable concepts. In democratic societies, public concerns are in fundamental contradiction with attempts in elitist discussions to clarify the matter. As media interfaces expand, it will be becoming increasingly important to create a wide consensus about their content. However, at present, the self-representation and creation of identity for companies and brands in public spaces remain the predominant driving forces, and the relevant discourse on art is integrated into these processes. Public framework conditions are produced from regulations, which exist on an ad-hoc basis, which have evolved from clearly smaller-scale influences on public spaces, and which are therefore initially inadequate. City development requires ideas for regulatory systems which structure these medium developments for everyday practical matters, as well as visual disturbances, light pollution, traffic impediments, and the like.

Architecture: construction and media contents

As the prices for LED technology drop, increasingly more facades will be lighting up. By means of pin-pointed creative concepts, their custom-tailored components will be able to satisfy ever-more specific economic requirements. Traditionally, architecture generates objects and their meaning, and not the meaning of their environments. Architects, in their design processes, define meaning in a symbolic way, to express it through an architectural object. Architects are designers and planners of facades, including media facades. But in the latter case, they are neither competent nor responsible for the media content, which is decided by owners, investors or developers. This was already argued in the early 1990s by Robert Venturi and Denise Scott-Brown.¹⁰

Architects are only one group among many stakeholders in the media facades business. It is not even essential for a media facade to require architectural expertise for its development: lighting planners and media designers have already demonstrated that. The enrichment of facades by digital media even creates a problem for architecture: in the future, architects may only be involved as construction experts and not as experts for the content that conveys meaning. In terms of the media façade's impression as an architectural object, this would lead to a separation between construction and content, between the syntax and semantics of a classical element of architecture. The traditional term "architectural representation",

which usually constitutes meaning on the basis of appearance, would disappear. The result of this development could be that architecture would only provide media designers with experts for certain three-dimensional or large-scale problems. To counter this, architecture could provide a creative visual language for public spaces, in the seamless play of surface and the spatial structural means of expression. However, the possibility of a specific iconography for these imaging interfaces has only recently become a subject for discussion.¹¹ There have still not been many experiments with the potential of media contents, apart from the traditional “still image” or “moving image”, as we have seen with the old media of print, film and video. A promising line of experimentation is the production of spatially-formed images, icons, clichés, metaphors and symbols important to a society for which a design has to be created. This could then extend architectural design methods to the medium substrate itself, to the details of hardware and software, to the construction of the space-forming as well as the light-giving elements.

From a technological point of view, screens are always referred to as neutral media. This argument refers to the circumstance in everyday usage, whereby customary screens give the impression of unlimited possibilities for representing and programming any kind of media contents. Customarily, this expectation is also applied to urban screens and media facades. They are regarded as neutral monitors, and are thought to have the characteristics of a neutral monitor. Of course, the possibility of dynamically exchanging contents and thus meanings and appearances is precisely the interesting point. But in what sense are such screens or imagers neutral, and what has to be dynamically expressed? Modernist doctrine demands that a facade reveals what happens inside the building. From a neo-modernist point of view, it could be argued that these new technologies finally provide designers with a perfect means to meet this requirement to the full extent and in a completely new context – by letting the processes and functions inside a building be depicted on the facade. Furthermore, following the line of modernist argumentation, this could be used to support the democratization of public spaces. If we carry this idea further, the technology could help to increasingly democratize the overall economy with the very corporations using such technology. This would be a powerful means to persuade these companies to contribute to the design of public spaces. Seen from this point of view, mediatized facades would radically publicize the interior of buildings, thus creating a new kind of publicity. They would show the truth of whatever may be hidden on the inside – in a direct and real-time manner. Of course, this transparency is not one that comes in a mantle à la Mies van der Rohe, but rather in a contemporary transparency of media images. Therefore, architecture must counter any approaches which these image providers want to use for new concealment practices and whitewashing by means of non-structural additions to the architecture.

In opposition to the modernist doctrine, Rem Koolhaas and Reinhold Martin have pointed out that generally facades do not express the spatial program of the architecture behind them, and not even the use of that architecture.¹² When modernist

facades express anything about what they hide, they express the interpretation of the architect. Media facades are the extension of a long tradition of symbolical expression in architecture. This implies that facades must be regarded as a part of the building, related to the physical circumstances of the technical object, but also to the architectural concept. But what if, as Kari Jormakka has noted,¹³ the facade is designed not as part of the building but as part of the street? Understood in that way, the facade is not meant to express what it hides but rather to reflect and make accessible what happens in the streets. Whatever the architectural discourse brings about, it seems as if the mere circumstance of media architecture is turning the modernist doctrine upside down. Today, facades do not reveal anything about their building's interior spaces, functions or programs, but rather reflect the global economic status of power structures. They could reflect the street's public nature if they were to structure and unify what happens in the streets by means of a custom-tailored imager. Instead of being a passive receiver of the global infrastructure, this technology could provide infrastructural feedback, as an emerging bundle of new media, in exchange for and to supplement the traditional mass media.

*Rurban mass media*¹⁴

Societies have always developed comparative, observing and reflective elements. As modernity evolved, these elements were increasingly taken over by the mass media. They produce a symbolic reality that is taken for the given reality on the basis of material infrastructures and interfaces. There are many varieties of media interfaces: from the planning aspect, one of the most important criteria as an architectural tool is their proportionality to other objects, people, components, etc.

Common sense tells us that mass media serve to form public opinion and that they are an important element in protecting democracy, by allowing criticism and control. In many European countries, this was regarded as being so important that citizens were guaranteed the legal right to basic media services delivered by the publicly-supported media without any external influence. The German Brockhaus dictionary defines the term "mass media" as "the media of mass communication". The term itself has long been recognized as imprecise and problematic, and is, according to the same dictionary:

... an unfortunate choice, since the term 'mass' does not adequately describe the group of recipients, nor does 'communication' properly describe the process of a one-way distribution without feedback.¹⁵

Moreover, the term "mass" is associated with the problematic meanings of alienation and dissolution of the social community into a mass culture or mass society. The term "communication", on the other hand, is burdened with the most diverse and inconsistent technical and cultural contents. Technically it expresses control, which leads to, or reacts to, defined changes of state in a system.

Culturally, however, the term expresses the notion of understanding. Thus, the technical communication sciences, with the artefacts and methods developed from their concepts, contradict the traditional script culture with its order of meanings. In many areas, its concepts are not complementary, but rather generate contradictory overlaps. In the technical field, a meaning of communication has developed that functions independently of sense, meaning and human understanding.

In 1948, the mathematician and founder of information theory Claude Shannon stated in regard to the communication model he had developed that “semantic aspects of communication are irrelevant to the engineering problem.”¹⁶ Contrary to the interpretive understanding of expressions in the hermeneutic notion of communication, a non-hermeneutic information theory developed that is based on transmission and selection in processes. Although Shannon’s communication model cannot claim to apply directly to social communication, the humanities and social sciences tried after the two world wars to use Shannon to legitimize their works by integrating the methods of the natural sciences: a communicator unilaterally and linearly addresses a recipient via a channel, a process subject to interference, such that it becomes necessary to extract the signal. In fact, the mass media of the 20th century could also be described as follows: print media, radio and TV supply a public that is passively immersed in consumption.

Although the political scientist Harold Lasswell was interested in a uniform view of a communication process, his formula, which he published also in 1948 in reaction to Shannon, became characteristic for applying the engineering term of communication to the cultural sciences: “Who says what in which channel to whom with what effect?”¹⁷ Yet in the sociocultural field, this model applies only to propaganda, that is, a form of communication which tries to influence public opinion with individual opinions. Yet contrary to technical communication processes, even in non-dialogue communication among people, such as in reading, the meanings of expressions are not necessarily firmly defined beforehand. Meanings are mutually established and negotiated over the whole duration of communication: “human communication consists of feedback loops, not of causal chains.”¹⁸

In 1964, in reaction to the problematic application of the technical model, the philosopher Michel Serres described human communication not as a channel, as Shannon had, but as a fabric, thus establishing the metaphor of a network.¹⁹ He did not differentiate between a transmitter and a receiver, since feedback is not a special case, but rather a requirement in this interpretation of communication. Although the old mass media obviously have not functioned according to linear models for some time, the unilaterally linear technical communication model is still the conceptual basis for the work of architects and media designers and is combined with the currently very popular metaphor of the network.²⁰

Even before the privatization and massification of the Internet, Vilem Flusser wrote in the 1980s about the development of cultural communication, which separated from the mass media and tended toward network dialogues.²¹ The po-



Fig. 1: "A Symphony of Lights", Victoria Harbour, Hong Kong.

tential for reproduction, acceleration and extension of reach became apparent in the early phase of digital media, when the computer changed from a calculator to a medium.

Today, old forms of media are constantly struggling to survive or merging with the new media, and the phenomenon of mass media has returned in a completely new form. When technical models are applied to socio-cultural areas, this creates problematic media concepts. In public spaces, such a concept has already been implemented with the new media of urban screens and media facades. Of course, they differ greatly from their historical predecessors. Firmly anchored in public spaces, they utilize their recipients' unusually short and small attention span. Instead of a collective experience – which shares with the traditional mass media a recognizable subject with few confidants over a certain period of time in a usually private environment – these new forms of media always provide a collective experience shared with many unknown persons. There is no public-law background, as with the historically-grown mass media. The official regulatory systems are limited to light pollution, traffic safety and technical functionalities. These media are operated almost exclusively by mutually independent companies which – beyond their commercial interests – do not inherently share any social and cultural contents and subjects. It seldom happens that the media companies selling random media contents are also the operators. More commonly, they are companies achieving their own representation with a new form of self-portrayal as a trademark. These new media share with their mass media predecessors the fundamental linear communication model, in which they are now technically accomplished and implemented in public space. That is why these new media are not striving for understanding in a cultural sense, but rather for propaganda meanings which a corporation constructs for itself for reasons of market differentiation.

The renaissance of the linear model in the new media generates specific problems; and less in terms of how to adequately depict potentially different communication situations, and more in terms of how a limiting reductionist concept can transform future communication situations that are to be newly designed. Chance, potential and the promises from the early phase of the new



media seem to be contradicted by the contemporary development of other new media, and are not being utilized in public space. Is there a media-culture counter movement working against the prophecies of these potentials? Is the concept of a new mass medium of public space becoming evident, one that is comparable to the mass media of radio and television?²²

Or is it now more likely a question of whether the totalitarian dream of total propaganda is becoming independently true due to market differentiation and technological development? Such a late achievement of the ideal of wartime and post-war propaganda would be accompanied by developments aiming at a new (this time) digital monumentality and an anti-egalitarian, anti-democratic aesthetics in public spaces.

With urban screens and media facades we have selected forms of new media in public space which are particularly conspicuous due to their flickering lights that simply demand public attention. But a gradation of sizes has long developed between screen and façade, which at one end of the scale is being represented by giant screens and at the other end by smaller facade components. What differentiates these, at least from an architectural point of view, is the question of whether the imaging element was pre-manufactured or custom-made for a particular construction project. Custom-made imagers can operate without various features that are typical for screens, such as evenness, framing, homogeneity of resolution, depth of imaging, transparency and coherence of surface. In addition, beyond the poles of these new media, we find other media in all orders of human scale. At the larger scale we find technically matured possibilities, such as the internationally long-ostracized projection onto clouds, and all kinds of flying objects can be endowed with images. One interesting laboratory experiment of this kind are micro-helicopters (drones), each representing one pixel, which can produce spatial images when flown en masse via swarm control.²³ A very concrete example is the synchronization of the skyline of Hong Kong's Victoria Harbour under the title of "A Symphony of Lights" (Fig. 1), and it has even been included in the *Guinness Book of Records* as "The world's largest permanent light and sound show".

Of course, when we look at the imager gradient in the direction of miniaturization, we find a growing profusion of “wearables”,²⁴ led presently by mobile phones. These wearables do not relate to an encapsulated private space within public space, but rather to the individual body. In the everyday of public space, digital media are always beyond the scale references that are of importance to architects and urban planners.

Contrary to the classical old media, the cutting-edge media infrastructure does not operate as a specifically classifiable interface that would make it identifiable as an individual medium, as is the case with the interfaces of radio, TV and telephone, which evolved on the basis of specific infrastructures for specific forms of communication. Instead, many kinds of interfaces are being developed based on digital infrastructure, which combine and expand the old infrastructures by means of digital technology. As an “urban chameleon”, this concept of media emphasizes less the uniformities of interfaces than those of its infrastructure. The acceptance of a medium is determined by human-machine interfaces,²⁵ while the degree of availability and accessibility is determined by the infrastructure.

While digital media are already ubiquitous, individual everyday experience shows that they occur in variously dense packages, and that this density is subject to rapid change. This is not only due to the changing media supply at different locations. Moreover, this effect unfolds from the interplay between individual mobility, different times of day, changed commercial interests and especially from uneven individual attention and wavering utilization. Therefore, media density, here understood as the density of individual use, is not synonymous with urban density. Zones of a certain media utilization density are seamlessly crossing boundaries of urban density zones. The different kinds of use and the mobility and flexibility of interfaces equally and individually augment²⁶ large cities, suburbs, small towns, suburban areas as well as rural regions, in spite of their different infrastructure densities. For example, the fragmented structure of the otherwise picturesque Austrian resort of Bad Kleinkirchheim,²⁷ without a core or public square, has acquired an identity that is even understandable to outsiders, because the main approach roads are framed by four deconstructivist arches with integrated urban screens.

Territories

In the widest sense, architectural design methods are based on visual representations and their manipulation – that is, processes which are meant to help architectural concepts work. It was from such a premise regarding the problem of representation that architect Stan Allen concluded in 1997:

Traditional representations presume stable objects and fixed subjects. But the contemporary city is not reducible to an artifact. The city today is a place

where visible and invisible streams of information, capital and subjects interact in complex formations. They form a dispersed field, a network of flows. In order to describe or intervene in this new field, architects need representational techniques that engage time and change, shifting scales, mobile points of view, and multiple programs [...] New maps and diagrams could suggest new ways of working with the complex dynamics of the contemporary city.²⁸

Architects have been working at finding adequate means of dealing with these problems for more than a decade, but just as previously, they are still using the obsolete term “public space”, resulting in an inadequate fit between the method and the object of the work.

In an effort to extend the different alternatives for looking at relationships between architecture and its environment, which were left behind by the second generation of modernists, to become a dynamic field, the urbanism historian David Gissen has suggested using the geographic term “territory”.²⁹ In modernism, architecture was regarded as autonomous, and the parameters of the relationship to the environment were greatly narrowed in the design. However, Gissen is speaking neither of media architecture nor of public space. Yet the situation of contemporary public space – greatly fragmented spaces occupied by a heterogeneous public and marbled with bundles of media of all sizes – can no longer be adequately represented and conceptualized with the classical methods of architecture.

Traditionally the term ‘territory’ refers to relations of rule, ownership structures, dominance and control that configure a particular space. Territorial space evolves from the presence of passive resources that must be actively administered in order to make them accessible, measurable and exploitable; territorial boundaries are where different forms of administrative interests face each other. That is why territories can also overlap without conflict. In an analysis from the perspective of architecture, the architectural and technology historian Antoine Picon describes the term ‘territory’ and its development, from an administrative term (in whose realm are also the engineering sciences as well as architecture in the modern sense) to a term of enlightenment.³⁰ Within the course of this process, the administrative ideal of the simplified exchange of humans and goods in the sense of production resources was extended to include social models and intellectual challenges. Social mobility within the layers of a society and among societies became one of the most important aspects of the enlightenment ideals; it had its equivalent in the physical exploration of a territory simplified by the engineering sciences. A territory itself was thus becoming a new category of resources – on a larger scale. In a next step, measures for the simplified exploitation of mines, rural land, people and their individual skills led to a unified market for goods and services. Many interactions between resources, the administration and the market evolved into a media effect based on their material conditions. It was no later than the mid-19th

century that architecture delivered some of the diverse infrastructures necessary to maintain administrative dominance, as architecture historian Manfredo Tafuri pointed out in *Progetto e Utopia*, (1973).³¹ Hence the classical avant-garde and its predecessors turned rationalization into a method in order to make architecture an integral component of the creation of territories. With and against this fundamental tendency, modernist streams of architecture developed their own spatial concepts. This piece of the territorial production pie concerns the conception of all kinds of objects in the built environment, usually aimed at cultural representation. In its modernist conception, an architectural object is intended to be an autonomous object, which either creates its environment or is implemented into a given environment, with relatively few strictly determined relationships.

In accordance with the humanistic ideals of transparency and exchange, an architectural field of experimentation is beginning to develop which wants to be understood as contrary to the old meaning of the term “territory”. In this context, territory now represents the simultaneous production of an architectural object, its fragmented environmental conditions and a large variety of heterogeneous environmental relationships. This kind of production triggers a process which actively produces a specific architectural object from the natural, social and technological-environmental conditions, as a multidimensional adaptation.³² The resultant architectural object is not deconstructed in a postmodern way, and nor are the architects dethroned as authors. Instead, the object is configured as diversely as possible via its relationships to its territorial conditions and its proportional scale. This, of course, enormously extends the architectural object’s levels of meaning and effect. This is precisely where the heavy legacy of classical modernism is again found, that is, the over-estimation of architecture’s effects by architects themselves. A broad sphere of action from architecture was expected to cure the ills of western society. However, the new approach also intends to change the meaning of term “territory”. In this new sense, territory does not stand for administrability but for concern, not for distance but for involvement, not for delineation but for relevance. Concern, involvement and relevance emphasize the generation of effects by architectural means which connect with other contemporary discussions such as that about atmospheres.³³ By means of effects, the old sensibility for the community (*communio*)³⁴ is to be conditioned in an emotional but also cognitive way: for the conditions and relationships that constitute a territory through the communication of specific media. In this way, an architectural project should not just become a product of distant schemes and self-righteous planning – or at least that is the architectural demand.

In this context, media are not only measures to exploit a territory, but also to unify a market. The administrability of newly accessible scales of attention and individual bodies, as well as architectural scales, is a phenomenon that expresses a new modality. Digital media are agents which at present territorialize further individual/human scales, and thus also make them publicly and commercially accessible. This new mediality works on the basis of a specific micro- and macro-

scale of interfaces on all levels of a territory – circumstances that cannot be expressed by the term “public space”. Seen optimistically, the physical exploitation by the digital infrastructure is followed by a simplified exchange through the new media. It allows social mobility, not only in educational status and intra-societal equalization and redistribution systems, since architects have an opportunity to form interdisciplinary teams for participating in affecting the digital infrastructure and its interfaces. If we project the concept of territory onto public space and media architecture, then this will become the basis for the new toolbox of methods with which to develop a media architecture object together with its environmental conditions and relationships.

Media territories

A territory cannot be constituted or exploited; it cannot be operated or controlled without the media that develop it, that hold it together and produce its *communio*. By means of its money, language, traffic and communication systems, as well as many other media, a territory not only becomes a market but also creates meaning and identity. Many aspects of media – in the extended sense of the word – have long been predestined (according to the present state of the art and according to commercial goals) to drift toward the status of digital media. Their standards are set by certain individual physical impacts and by moments of attention – divided collectively and in terms of time (triggered by interaction), which weave these territories into a mutually connected network. Media territories are material preconditions of communication, and related to a certain lifeworld context on a certain scale. They represent a category of new digital media systems merged with architectural spaces – in this instance, public space.

If architects wish to continue receiving their part of the territory-production pie and wish to achieve their often-stated professed goal of social responsibility, it will be part of their mission to cultivate this process of socio-technological transformation. However, this can be done neither neutrally nor without any ideology, for it means deliberately cultivating the very re-layering of the media territories against each other and with each other. Since at present, the process – except for maximizing profit – does not follow any strict objectives, there is some leeway in its cultivation. The need for action is clearly indicated only by the state of development of urban screens and media facades which, following a problematic communication model, are conceived as digital monuments rather than new media.

Notes

1. Martin Tomitsch & Gernot Tscherteu, *Media Architecture Biennale Exhibition 2010 Catalogue*. Vienna: Künstlerhaus Wien, 2010, 9f.
2. Jürgen Habermas, *Strukturwandel der Öffentlichkeit*. Neuwied: Luchterhand, 1962.
3. Chuihua Judy Chung, Jeffrey Inaba, Rem Koolhaas and Sze Tsung Leong (ed.): *The Harvard Design School Guide to Shopping / Harvard Design School Project on the City 2*. Cologne: Taschen, 2001, 129-135.
4. Wolfgang Kaschuba, “Repräsentation im öffentlichen Raum”, in: Heinz Nagler, Riklef Rambow & Ulrike Sturm (ed.), *Der öffentliche Raum in Zeiten der Schrumpfung*. Berlin: Leue Verlag, 2004, 43.

5. The arguments come from several discussions the author had, as a curator for the 2008 Media Facade Festival in Berlin, with various artists and curator colleagues. During the festival, five Berlin media facades were appropriated for the display of artistic works.
6. Georg Franck, *Ökonomie der Aufmerksamkeit: ein Entwurf*. München: Hanser, 1998, 148.
7. Gerd de Bruyn, "Undisziplinierte Architekturtheorie(n)", *Wolkenkuckucksheim* 9 Jg, Heft 2, März 2005: <http://www.cloud-cuckoo.net/openarchive/wolke/deu/Themen/042/deBruyn/de-bruyn.htm> (accessed 13.11.17).
8. Kari Jormakka, "Vom Raum zum Bild", *Architektur & Bau Forum*, 17/2005, 18.
9. Lev Manovich, "The poetics of urban media surfaces", *First Monday*. Special Issue 4, Urban Screens: Discovering the potential of outdoor screens for urban society, February 2006: <http://www.firstmonday.dk/ojs/index.php/fm/article/view/1545/1460> (accessed 13.11.17).
10. Robert Venturi, *Iconography and Electronics upon a Generic Architecture: A View from the Drafting Room*. Cambridge, MA: MIT Press, 1998.
11. See the present author's contributions at the 2008 Art University of Linz and the 2008 Media Facade Conference at the German Architecture Centre in Berlin.
12. Rem Koolhaas, *Delirious New York: A Retroactive Manifesto for Manhattan*. New York: The Monacelli Press, 1994. Reinhold Martin, *The Organizational Complex: Architecture, Media, and Corporate Space*. Cambridge, MA: MIT Press, 2003.
13. Kari Jormakka stated this in a panel discussion on 'Systems and parametric architecture', on the media deck of the Open Culture House in Linz on December 13, 2006.
14. Merriam-Webster dictionary definition of rural: "Of, relating to, or constituting an area which is chiefly residential but where some farming is carried on." Origin of rural: "blend of rural and urban". First known use: 1918. <www.merriam-webster.com/dictionary/rural> (accessed 13.11.2017).
15. Bibliographisches Institut & F. A. Brockhaus AG, 2009, DVD Version, under 'Mass medium'.
16. Claude E. Shannon, "A Mathematical Theory of Communication", *The Bell System Technical Journal* 27, 1948, 379-423. Reproduced in Claude E. Shannon and Warren Weaver, *The Mathematical Theory of Communication*. Urbana, IL: University of Illinois Press, 1949.
17. Harold Lasswell, *Power and Personality*. New York: Norton, 1948.
18. Frank Hartmann, *Medien und Kommunikation*. Wien: UTB, 2003.
19. Michel Serres, *Hermes 1 – Kommunikation*. Berlin: Merve, 1964.
20. Tomitsch & Tscherteu, *Media Architecture*, 9f.
21. Vilem Flusser, *Universum der technischen Bilder*. Göttingen: European Photography, 1990.
22. The mass distribution of television in Europe was partly hastened by the 1954 World Cup in football. Dietrich Kerlen, *Einführung in die Medienkunde*. Stuttgart: Reclam, 2003, 249f.
23. Project Firefly by the MIT SENSEable City Lab: <http://senseable.mit.edu/flyfire> (accessed 13.11.2017).
24. "Wearable computers are computers that are worn on the body. This type of wearable technology has been used in behavioral modeling, health monitoring systems." Wearable Computer: http://en.wikipedia.org/wiki/Wearable_computer (accessed 13.11.2017).
25. Jens Geelhaar in a talk at the 2010 Media Architecture Conference on October 8, 2010.
26. "Augmented reality": the overlapping of the so-called virtual and physical realities.
27. "The resort community of Bad Kleinkirchheim provides the latest information by means of overhead full-colour LED. With wireless access you can receive new information, sponsor logos, news about events, commercials, traffic info, news for skiers, and much more, all within seconds, via the ACT video walls mounted across the street. Each of the four conspicuous 8 x 1 m video walls informs you on both sides, even from some distance" <http://www.act-thielmann.at/2007/06/29/tourismusinfo-video-wall-bad-kleinkirchheim/> (accessed 13.11.2017).
28. Stan Allen, *Practice: Architecture, Technique and Representation*. New York: Routledge, 2009, 60. See also: http://www.prototypo.com/Essays/Essays2/002_2.htm (accessed 13.11.2017).
29. David Gissen (e d.), *Territory: Architecture Beyond Environment*. London: Architectural Design/Wiley, 2010.
30. Antoine Picon, "What has happened to Territory?", in Gissen (ed.), *Territory*, 95f.
31. Manfredo Tafuri, *Architecture and Utopia: Design and Capitalist Development*. Cambridge, MA: MIT Press, 1976 (*Progetto e Utopia*, 1973). Cited in Picon, *ibid*.
32. See Gissen (ed.), *Territory*.
33. See Gernot Böhme, *Atmosphäre: Essays zur neuen Ästhetik*. Frankfurt am Main: Suhrkamp, 1995.
34. The Latin term 'communio' is translated variously as community, communion, to strengthen, to secure against an attack, to strongly fortify.

WHAT GOES UP MUST COME DOWN!

Djamel Zeniti

Prologue

High growth of iron,
Slender, strong,
Splendidly uprising
Toward clear skies.

The building of cities:
... the work
of walls and ceilings.
Manhatta (1921)¹



Fig. 1: *Manhatta*; iron beams viewed from below.

In attempting to show how the “end of the world” began in Vienna, Peter Conrad refers to Adolf Loos’ infamous declaration from 1908 about ornament and crime:

To illustrate the absurdity of decoration, he made up a fable about the origins of the crucifix, the ornament which – in the days before skyscrapers – conferred God-fearing respectability on the skyline of a city. [...] The sign of the cross... was the first work of art. [...] It was, Loos coolly explained, the crudest of graffiti.²

In clarifying what he sees as even the insignia of religion acquiring erotic meaning in fin-du-siècle Vienna, Conrad clarifies Loos’ claim about the “crudest of graffiti”: the female drawn by a horizontal line, the male a vertical bar penetrating



Fig. 2: Pruitt-Igoe demolition series, 1972.

her. “In modern free-thinking Vienna”, he concludes, “the crucifix was inverted, pointing down to the libido rather than up to the sky.”

According to Nezar Al Sayyed, the *city* and the experience of *urban modernity* were never better caught than by the medium of film, where the *real* as a catalyst crystallizing the essences behind the images of the urban was captured by the *reel*.³ Le Corbusier used *Cartesian geometry* to define architecture as the masterly, correct and magnificent play of masses brought together in light.⁴ Through light, the image becomes clear, tangible and unambiguous.

The skyline of Manhattan, the canvas of many films, formed the set for Bernard Tschumi’s *Manhattan Transcripts*; by involving photographs that either direct or witness events, it allowed a reconstructed different reading of architecture in which *space*, *movement* and *events* are independent, maybe even interchangeable. *They* are a hint to the archetype of *murder*. Tschumi underlines the fact that “perhaps all architecture, rather than being about functional standards, is about love and death.”⁵

Cut – An explosion, bursts of debris, waves of gray clouds swelling out from a building – no fire – just dust, clouds of dust. When Charles Jencks marked that moment in which architect Minoru Yamasaki experienced the destruction of his design as “the day Modern architecture died,” it was at 3 p.m. on March 16 1972,⁶ the moment the Pruitt-Igoe housing complex in St Louis was demolished (Fig. 2).

“When your house trembles in its beams and turns on its keel, you think you are a sailor, rocked by the breeze.”⁷ In Edgar Allen Poe’s *A Descent into the Maelstrom* one can recall the appearing old sailor who, through the horror of one day, had his raven-black hair turn to white. Not one of his rescuers believed his story – and he scarcely expects us to put more faith in it than did the merry fishermen of Lofoden.⁸

Cut – Vienna, September 11, 2001, mid-day on Wiedner Hauptstraße: a choking grey cloud billowed out, blocking out the bright sunshine and chasing thousands of panicked workers with dusty white hair tumble through the canyons of Lower Manhattan.⁹ Since 8:46 a.m. on 9/11 when the first plane hit the north tower of the World Trade Center, for hours in stupor, the TV images of burning towers were ongoing in a loop.¹⁰ No one in front of that screen knew at that moment that a second Yamasaki building would fall that day, or of the predominance of those images that would stay burned into the inner eye of Western World from that moment onwards at the breaking 21st century; it was history unfolding, a New York *heure zéro*.¹¹

“I wonder if the Ground has anything to say. I wonder if the Ground is listening to what is said.” So spoke a young Cayuse chief upon signing over the tribe’s lands to the US government in 1853. Eric Darton quotes these words at the beginning of



Fig. 3: Ground Zero cross.

the afterword in his 2011 biography of the World Trade Center. He describes the process of “disappearing the ruins”, even marked by a ceremony at Ground Zero with a cortège carrying a flag-draped stretcher signifying the unrecovered dead. Then, “marching to the skirl of bagpipes, an honor guard of rescue and recovery workers escorted the ‘last beam’ to a flatbed truck for transport to temporary storage. Surveying the pristine, nearly polished-looking bathtub, one could scarcely imagine that any structure had ever stood in that spot at all. Or would be built there again. The site had been reduced to a tabula rasa.” (Fig. 3)¹²

*

Between the idea
And the reality
Between the motion
And the act
Falls the Shadow
(T.S. Elliot, *The Hollow Men*)

Trick or treat?

The 1974 movie *Towering Inferno* directed by John Guillermin was dedicated to “Those who give their lives, so that others might live – To the firefighters of the world...” and paints a critical view of the high rise. The builder, James “Jim” Duncan (played by William Holden) tries to convince the building’s architect Doug Roberts (played by Paul Newman) *not* to retire, “what I wanted to tell you is that ... Senator Parker’s flying in for the dedication tonight, and he’s almost



Fig. 4: Buster Keaton, *Steamboat Bill Jr.*, 1928.

guaranteed the urban renewal contract. Do you know what this means? Skyscrapers like *this* all over the country. You'll design them, and I'll build them." Roberts replies: "Jim, you suffer from an Oedipus complex,"¹³ and rebuffs him. Later on, when the building is on fire, San Francisco Fire Chief (played by Steve McQueen) enters the elevator on the 80th floor and sighs, "Whew. Architects." Roberts retorts "Yeah, it's all our fault."

What was the goal for artist Steve McQueen in his 1997 short film *Deadpan* in reenacting a sequence – often quoted as one of the most dangerous "stunts" in silent cinema – recorded by silent movie star Buster Keaton in his 1928 movie *Steamboat Bill Jr?* (Fig. 4) Was it the fault of the architect that the walls of the hut didn't hold in a cyclone? A falling wall – an actor – concentrated, immobile in one place, salvaged by the rabbit-hole in a wall and reborn in a burst of dust; it is reminiscent of the Lumière brother's "Demolition of a wall" in 1896. The falling of a wall and the shattering of debris: is it a casual thing, or does it stand for the gravitational attraction of the timely human condition by the grounds?

A simple earthen mound can reveal *Architecture*, as has been known since Adolf Loos!¹⁴ Keaton's invisible and vital nail in the ground, though invisible to us, was *Cinema*. It was 'placed' there by his inner eye, much like the columns in the *cella* of the mid-second century Ionic temple of Artemis Leukophryene at Magnesia on the Meander, visible to the Hellenistic architect Hermogenes; the position of the *pteron*, even though no one would ever be able to see this correspondence in the finished building, was evident only in the plans and visible only to the architect's inner eye.¹⁵

The first discovery on the rubble of the Tower of Babel (Fig. 5-6), argues Robert-Jan van Pelt, was "the importance of tonal space in man's being in the world" and "Tonal space, unlike visual space, is shown [...], to be the space of participation, of love, of home."¹⁶ The fall of the wall in silent era film is *happening* in silence while the deafening roar of a present time wall is *followed* by silence.

After the cataclysm: "And it's dead silence. There's nothing. No radio calls. No sound. Nothing." So commented Philippe Naudet after the second World Trade Center tower had fallen. "Everything was white. Everything was covered with the dust." Present at the core of the 2001 documentary *9/11* is the horror, though there is also *humanism*. After the firefighters came back to their firehouse, after *that* day, they received more hugs from friends or co-workers than ever before in their lives, happy to see them alive!¹⁷

Stanley Kubrick knew for his 1968 film *2001 - A Space Odyssey* that there was no air and thus no sound in space and Errol Morris found out, and the key was already known to Newton – gravity.



Figs. 5-6: Scenes from the Tower of Babel sequence of Fritz Lang's *Metropolis*, 1927.



Fig. 7: Nicéphore Niépce, view from the window at Le Gras, 1826 or 1827.

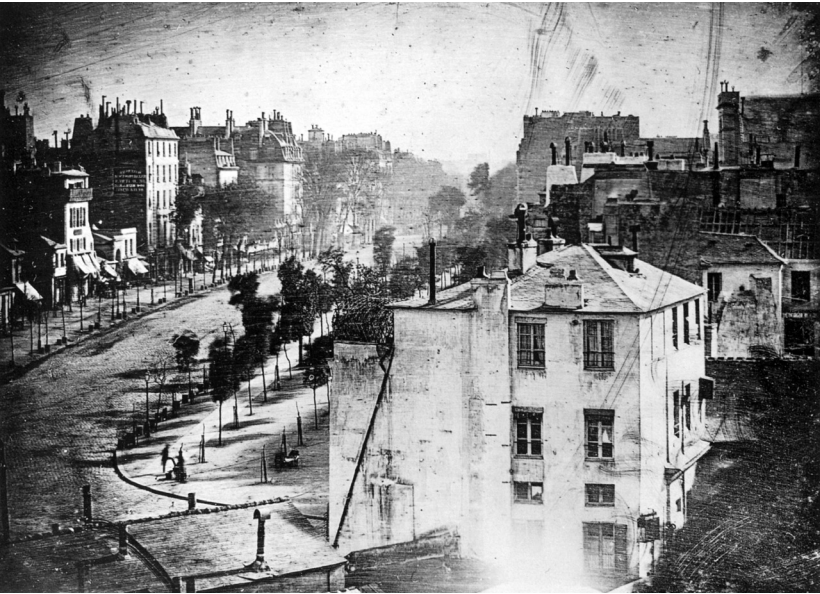


Fig. 8: Louis-Jacques Mandé Daguerre, *Boulevard du Temple*, 1838.

Flashback: Learning to see and paper mysteries

The first picture that Nicéphore Niépce took in 1826 or 1827 from a window at Le Gras (commonly accepted as the first photograph in history) (Fig. 7), showed an allusion to Le Corbusier's definition of architecture – no clear, tangible image without ambiguity. Niépce's so-called "heliography"¹⁸ (Greek: *helios* meaning "sun" and *graphein* meaning "write") still needed hour-long exposure times. Movement was not caught – yet. So the first person caught on a photograph was not caught due to movement but more accurately because of his immobility, as one can see in Louis-Jacques Mandé Daguerre's *Boulevard du Temple* (Fig. 8) from 1838, catching the first figure of a person, a shoeshine cleaner and his customer in the so-called *Boulevard du crime*.

It has a striking similarity to Henri Cartier Bresson's famous photo *Derrière la gare Saint-Lazare*, from 1932, showing a man frozen in time, aloof, his foot caught *just not touching* the ground (here water), photographic proof that to be at the right moment at the right place (and for a photographer to press the trigger at the exact right instant) it meant to "deal in things which are continually vanishing and when they have vanished there is no contrivance on earth which can make them come back again."¹⁹ The iconic picture depicts *a moment* frozen in time.

To go from photography to cinema, one simply needs images and a thumb, it is a wonderful element of entertainment from Eadweard Muybridge – who has brought photography to the verge of cinema in capturing what the human eye could not see in quick and separate clichés, of men, women, horses, cats and dogs in locomotion – to Errol Morris' use of this technique for his advertisement Photo Booth for PBS in 2001.²⁰ When making *The Horse in Motion* (1881), Muybridge used wires to operate as triggers to set off the shutters of his cameras – with the horse triggering it by its own movement (Fig. 9).²¹

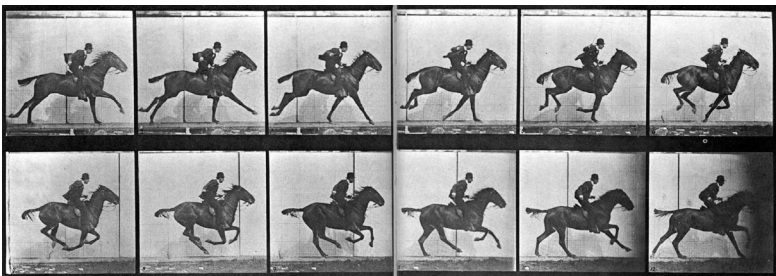


Fig. 9: Eadweard Muybridge, "The horse in motion", 1878.



Figs. 10-11: Roger Fenton, *Valley of the Shadow of Death*, 1855.

What is the deep moment that triggers the path of life, of people choosing their way of either becoming firefighters, architects or filmmakers? When Le Corbusier went on his life-forming travels to the Balkans, Greece and Turkey he took along a small Kodak camera, but creating images by touching a button with a finger didn't catch on with him, he claimed *he* "didn't get into the equation." But later, when using a pen, he would say that when an image passes from his hand to his head, "it stays there, it's inscribed there."²²

Errol Morris did get into the equation; he even traveled to the Crimea because he got stuck between *two* pictures (by Roger Fenton) and was triggered by *two* sentences from Susan Sontag regarding the photographer's famous war pictures (*The Valley of The Shadow of Death*) taken in the peninsula in 1855 (Fig. 10-11).²³ They got under Morris's skin. The Oscar-winning documentarist dug deep into a simple question: between these two pictures made over 150 years ago, how can one tell for sure which one was made first?²⁴ Morris was to solve the mystery!

When Fritz Lang was asked by Jean Luc Godard "How would you define 'what is a man?' and more precisely, a man *who is a director*. Is he a worker? An artist?" Lang responded that it would be "a man who works hard and knows his trade." He added that one also had to be a bit of a ... psychoanalyst: "He [the director] has to get beneath an actor's skin."²⁵ In the film *Contempt*, a director, Fritz Lang and Jeremy – Jerry – Prokosch the American film producer argue about the script. Prokosch, furious, exclaims "You know what I think of that stuff up there, Fritz?" and goes berserk. Lang asks whether it should be rewritten. "You cheated me", scoffs Prokosch, "that is not what is *in* that script." "It *is*!" Lang retorts! And after glancing through the script Prokosch has to agree, "Yes it is in the script. *But it is not what you have on that screen.*" Lang returns "Naturally, because in the script it is written, and on the screen it is pictures. – Motion picture it is called." Someone off-screen comments "Oh, he says it's not the same on screen as on paper."²⁶

In Henri-Georges Clouzot's 1956 documentary film *Le Mystère Picasso* one sees a Picasso painting from "inside the frame" *becoming*; a creation on the canvas was *captured* by one camera and parallelly the artist was *caught* with a second one from the side, a kind of three-dimensional interaction between the filmmaker, the artist, his canvas and the directors' roll of film, and hence (running out of film and) time.²⁷ It is worth noting that already by the 1930s the quality of the film improved and, as Gabrielle Esperdy claims, "this meant that three-dimensional props would be read as three-dimensional on film. As a result, anything appearing in a shot – stairs, paneling, furniture, lamps or ashtrays – required a higher level of finish and detail than had previously been necessary."²⁸ "Many films of this period," she continues, "present the social rise through studies and the profession of the architect,"²⁹ and concludes that "it was around this time that American architects first expressed an interest in the movies; by the 1930s, according to

some estimates, nearly ninety-five percent of all Hollywood art directors came from the profession.”³⁰

The sentiments of Reginald Blomfield will probably still be valid a century from now, when he stated that “a hundred years *ago* and earlier there were fashions too, but they were fashions of considerable solidity, changing not year by year, but generation by generation, and the student in mastering the fashion of his generation at any rate mastered one manner fairly completely. Nowadays he is apt to dash from one manner to another, and never arrives at anything. It is essential that the student, in selecting his models for imitation, should fortify his judgment by the study of history and the analysis of old work.”³¹ This recipe contained in a study book on the *purpose* of architectural drawings dates from 1912.

For Hani Rashid “the art market has driven us into a world where turning things on their head has reached its limit. Architecture has become the provocative art of our time, and is once again primed for upheaval.”³² He points to the 1980s, the era of so-called *Paper Architecture*, yet according to him “... thankfully, we are now out of that phase, having moved into a visually rich territory in which [...] buildings, [...] play with light or the cultural environment in which they are placed.” The term *Paper Architecture* is often used in a condescending way. Alvar Aalto would have opposed that as

...instinct and imagination alone create nothing more than visions. Even if the first idea should nearly always prove correct, it is still essential that one tackles the material. ... [T]he idea only becomes reality once pen has been put to paper; this is the essential second step towards the realization of architecture.³³

You learn for life, not for education

Dana Buntrock points out that older adults realize that the odds of success in a media-oriented, ‘star-architect’ system are slim, and states that “young people are not so world-wise. [...] Too often, to students, the art of architecture appears to be an easy, accessible career path – and, with designers less than a decade out of schools featured in magazines and active in art galleries, it suggests a rapid rise to prominence and influence.”³⁴ She puts it rather starkly: “[e]ducation reflects the economic ambitions of each age. (...) [t]oday, to a greater degree than has ever been true, many [...] students studying architecture will not find jobs in the field – or in related fields like engineering and construction.”

This is as likely for the many students exiting the European architect factories as was once put most bluntly by a charismatic professor: “*The first two rows stay, the others: please leave..!*”³⁵ This was meant to show some of the first year students at the school of architecture at TU Vienna that the chances of really “becoming”

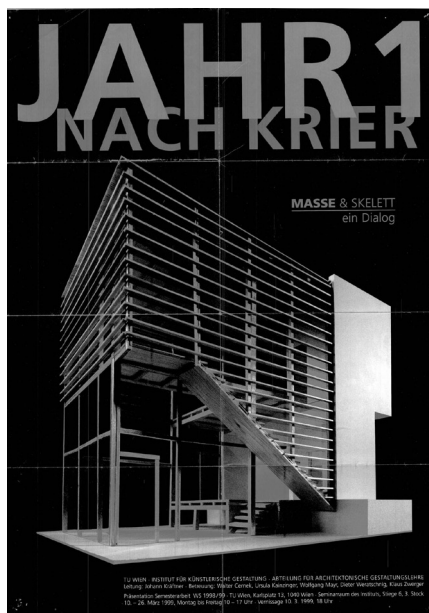


Fig. 12: Poster, "JAHR 1 NACH KRIER", TU Vienna, 1999.

an architect were rather slim: in the period between 1970 and 1994 approximately 2500 students received a degree, the same as the total number of first year students in the school for the three years 1992-1994 (Fig. 12). The average annual number of architecture students graduating from TU Vienna during that 25-year period hovered at around 100 but then from 1991 onwards it soared into the hundreds, peaking at 459 for the year 2001.³⁶ Today's one-fifth of all the dropouts at TU Vienna do so because their expectations are not met; there is an incompatibility with their main job, or they drop out for personal reasons, and 14.7% drop out for financial reasons.³⁷ The above quip from Robert Krier resonates with two well-known comments on film about architects. The first is at the beginning of *The Fountainhead* when student Howard Roark is told angrily by his dean that "[he] will *never* become an *architect*," The second is spoken by Le Corbusier in a filmed interview with Jacques Barsac:

I became an architect in the most regular way in the face of God and maybe not in the understanding of schools (...) with some Francs in my pocket I went to Italy – why Italy – well, in order to see things with *indifference*. Why not go to a school (my father recommended so highly) ... in *what* school, I said, I don't know *what* there is to learn. First I go and see what there is to learn!³⁸

Even Alvar Aalto, the great draughtsman, was alleged “not [to] believe in the professional education of architecture schools, and [said] that he had not learned anything during his studies and had graduated as soon as possible; *you learn working*,”³⁹ Vezio Nava recalled the maestro saying.

The start of the process of creation in *Cinema* and *Architecture* are quite alike, at the start there is an idea, a thought crystallized onto a simple medium, paper. But what happens to it? From a script, a storyboard comes into being for cinema, sketches for architecture, and so on. Lebbeus Woods wrote about the limitations of these in *Underground Berlin: The Film Treatment*, stating as the reasoning behind his endeavor: “What follows is a treatment (Hollywood slang for story synopsis) with sketches that I made for a projected film in which new forms of architecture—and the way of living they enable—would play a central role.” He goes on to stress that “[w]orking on that [*Alien.3*] project, I realized that set designers have no power over how their designs are used, and certainly no influence on the story or its social or ethical implications.”⁴⁰

“Painting and sculpture are relatively well defined art forms, taught under the disciplines of history and aesthetics,” states Robert Gessner, and then continues that “no such clarity has blessed the academic development of cinema...”⁴¹ *Nomenclatures, words and definitions* do alter through time, and while dictionaries define *Film* and *Architecture* there are of course innumerable *other* definitions by practitioners, educators, theorists,⁴² students or laymen.⁴³ Stefan Meißner asks the complex question: “What do you need to look for in order to *know* if it is architecture?” For him architecture as *modern art* needs a commentary or explanation in order to be understood, as it cannot be understood on its own. This even includes texts, models, photos and films about it.⁴⁴

Is scratching a bovine disc on two sides with a herbivore, making a hole in the center, putting a rope through and around it, flipping it “the beginning of culture”?⁴⁵ As Marc Azéma indeed argues:

Paleolithic artists would have prefigured the modern concept of animation. Better still, some Magdalenian objects may have been used to reconstruct these broken down movements: cut out discs, like the one from Laugerie Basse (...) where two successive images of a chamois is in the process of falling are engraved on each side of a bone disc could represent an optical game prefiguring pre-cinema ‘thaumatropes’.⁴⁶

Did we know that this might belong to cinema? As Errol Morris so cunningly quipped in his *Annual David Lean Lecture*: “[y]ou search for truth through investigating endlessly and, if you’re lucky, you find something approximating it.”⁴⁷



Fig. 13: Lions in the Chauvet grotto.

Beginnings – looking for an end

We may recall Rudolf Arnheim's claim that "the ancient desire of man to make likenesses of his environment found new satisfaction when he became able to reproduce movement."⁴⁸ Man has indeed excelled in making durable but *immobile* pictures. Fritz Lang lectured Jean Luc Godard saying that "though we didn't have words as you do now, I think it was a lot easier for us than for you because we were pioneers."⁴⁹

Azéma adjusts our *concept of cinema* by arguing that it had not been discovered during the 19th century with the optical toys that suggested movement, nor even in the 17th century with the first spectacles of the magic lantern, but in fact more than 30 000 years ago at the far end of a Paleolithic cave (Fig. 13). Already before Lumière and Edison, Cro Magnon man had understood the founding principles of cinematography. Further, Azéma claims:

[m]an 'dreams' since always. [...] Though his brain is a machine producing much more evolved images, [...], a marvelous mechanic able to simulate fragments of realistic existence or on the contrary purely delusory 'films' in the becoming [...] man 'imagines', thinks in images [...] It was first the birth of the tool then of the 'image'. This last invention will forever unsettle his existence, as for its narrative essence, the image is at the base of communication.⁵⁰

Soon after the invention of the photograph, people started going to photographers' studios dressed in their Sunday clothes to have their portrait taken. With Eastman Kodak's Brownie N°1, starting in February 1900, photography became available: the slogan "You push the button, we do the rest" accompanied it and made it clear that it was a camera for the masses.⁵¹ Our ancestors communicate

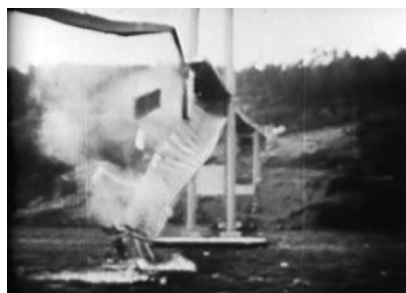


Fig. 14: Tacoma Narrows Bridge collapse, 1940.

with us through all sorts of images. If one compares the 1987 short film *Der Lauf der Dinge* by Fischli and Weiss and the award-winning Honda commercial “The Cog” from 2003, obviously inspired by it, one can ask which of the two tells the better story?⁵²

When one considers the 50-second film *Arrival of a Train at La Ciotat* (aka *Train Pulling into a Station*), a Lumière short film and a possible “urban legend” stating that the first viewers screamed, jumped up and ran away from the screen⁵³, one could claim that when architecture moves there has been miscommunication or a problem.

Epilogue: To build or not to build

I never thought people were that destructive.
(Minoru Yamasaki)⁵⁴

When the Tacoma Narrows Bridge in the US curved and twisted as a result of self-excitation in the days leading up to November 7, 1940, when it finally collapsed, it is the moving film that creates the stupor before the catastrophe. Luckily no people were harmed when on that day at 11:00 a.m. local time the deck ceded under the constraints and fell to become an “artificial reef” in the Tacoma Narrows strait of the Puget Sound. It is in the film with its oscillating movement that the magnitude of the disaster comes to full realization (Fig. 14).⁵⁵ A few decades later, on April 29, 1978, in Rissa, Norway, an eyewitness captured on film a geological phenomenon called *quick clay liquefaction* which occurred over an area the size of five football fields, destroying seven farms, killing one person and transforming a calm lakeside area into something we might equate with Armageddon. The caption of the film runs as follows: “Large flakes of dry crust, in some cases with intact buildings on top, floated on the remolded quick clay stream. This house moved with the velocity of the order of 30 km/h. [...] This house you can see here rotated around its vertical axis as it rushed towards the lake ...”⁵⁶

Robert-Jan van Pelt cites Ernst Bloch's conclusion in his book *The Principle of Hope*: "The real Genesis is not in the beginning, but at the end..." Van Pelt continues, specifying that "to make this end into a true new beginning, a demand [is] imposed [...], we must ask us what we can do, here and now." He concludes:

[...]The task which educators in architectural schools face is clear: they will have to restore Auschwitz in our understanding of [t]his history of architecture, in order to reach a situation in which 0% of their students will accept a commission to design a gas chamber, and 100% of them will resist the possible building of such-like space with all their might and power. [...] We have to show how one can make homes instead of towers which are higher than we can climb.⁵⁷

"The more mass, the more fire resistance." Lieutenant Gregory Gargisio from the New York Fire Department simplifies the equation and pledges that "maybe now [after 911] they (the financiers, architects, bureaucrats...) will listen to what we (the fire service) have to say."⁵⁸ And as firefighter Michael "Mike" O'Halloran hit on the architect of *the world's tallest building* in *Towering Inferno*: "Now you know there's no sure way to fight fires over the 7th floor, but you guys are building them as high as you can." The architect: "Hey, are you here to take me on or the fire?" O'Halloran concludes: "You know, we were lucky tonight. The body count is less than 200. You know, one of these days you're gonna kill 10,000 people in one of these fire traps, and I'm gonna keep eating smoke and bringing out bodies, until someday somebody asks us how to build them."

Gorgeous clouds of sunset!
Drench with your splendor
Me or the men and women
Generations after me.
Manhatta (1921)

Notes

1. The short film *Manhatta* by Charles Sheeler and Paul Strand, 1921: https://archive.org/details/Manhatta_1921 (accessed 15.10.2016)
2. Peter Conrad, *Modern Times, Modern Places – How life and art were transformed in a century of revolution, innovation and radical change*. New York: Knopf, 2001, 43.
3. Nezar AlSayyed, *Cinematic Urbanism – A history of the modern from reel to real*. Routledge: New York, 2006, 1.
4. Le Corbusier, *Vers Une Architecture*. Paris: Flammarion, 1995, 16 (my translation).
5. Bernard Tschumi, "The Manhattan Transcripts": <http://www.tschumi.com/projects/18/#> (accessed 7.10.2016). See also Melvin Charney *Un dictionnaire...* Toronto: Power Plant Contemporary Art Gallery, 1998. Charney started in 1973 to collect photo clippings, tracking images of buildings that made it to the front pages of newspapers.
6. Charles Jencks, *The Language of Post-Modern Architecture*. New York: Rizzoli, 1984, 9. The demolition of these buildings was done over a period of four years, from 1972 to 1976 when the last building was demolished.
7. Gaston Bachelard citing Balzac's *Petites miseres de la vie conjugale* (edited by "Formes et Reflets", 1952, vol. 12, 1802). Gaston Bachelard, *The Poetics of Space [La poétique de l'espace]*, Presses Universitaires de France, 1958], translation by The Orion Press. Boston: Beacon Press, 1992, 28.

8. "My hair, which had been raven-black the day before, was as white as you see it now. They say too that the whole expression of my countenance had changed. I told them my story – they did not believe it. I now tell it to you – and I can scarcely expect you to put more faith in it than did the merry fishermen of Lofoden." Edgar Allen Poe, *A Descent into the Maelstrom*, 1841: http://pinkmonkey.com/dl/library1/desce_.pdf (accessed 1.10.2016).
9. See *The New York Times*, September 12, 2001: <http://www.nytimes.com/learning/general/onthisday/big/0911.html> (accessed 1.10.2016).
10. Ibid. "CNN and other television networks were quick to focus their cameras on the disaster, enabling untold numbers of viewers to witness the second jetliner as it banked into the south tower 18 minutes later, blowing a cloud of flame and debris out the other side." This was broadcast live on TV, recalling the first live radio broadcast event of the Hindenburg tragedy at Lakehurst, New Jersey, on May 6, 1937.
11. The notion of "Die Stunde Null" refers more generally to May 8, 1945, the end of WWII having also been used in reference to other noteworthy dates in German post-war history, when "tabula rasa" is used mainly in a philosophical context.
12. Eric Darton, *Divided We Stand: A Biography of New York's World Trade Center*. New York: Basic Books, 2011, 225.
13. *The Towering Inferno*, John Guillermin, 1974.
14. Adolf Loos, "When we find a mound in the woods, six feet long and three feet wide, raised to a pyramid form by means of a spade, we become serious and something in us says: someone was buried here. That is architecture." In *Architektur*, Vienna, 1910: http://www.sommerwerkstatt.de/ressources/Loos_Architektur_1910.pdf (accessed 13.10.2016).
15. From J.J. Coulton, *Ancient Greek Architects at Work: Problems of Structure and Design*. Oxford: Oxbow Books, 1977.
16. Robert-Jan Van Pelt, "Architecture of Dialogue and the Prophecy of Preservation", in *The Spirit of Home, New Orleans 1986*. ACSA (Ed.), Proceedings of the 7th Annual Meeting of the ACSA, New Orleans, 1986, 270. "A handful of writers on architecture have explored the aural dimension. One of them is Robert-Jan van Pelt who in his article "Architecture of Dialogue and the Prophecy of Preservation" makes an excursion to the border areas of the architectural discourse. He claims that the purpose of the journey was "to gather new material which would allow the academicians [...] to revise their thinking on the manner in which architecture can help man in making him at home with the future."
17. 9/11, Jules and Gedeon Naudet, 2001.
18. See Daniel Woods, "Heliograph and Mirrors," in Christopher Sterling (ed.), *Military Communications: From Ancient Times to the 21st Century*. Santa Barbara, CA: ABC-Clio, 2008, 208. "The heliograph was a simple but effective instrument for instantaneous optical communication over long distances during the late 19th and early 20th century." https://en.wikipedia.org/wiki/Heliograph#cite_note-Woods2008-1 Wikipedia (accessed 1.10.2016).
19. Henri Cartier-Bresson, *Photoquotes*: <<http://www.photoquotes.com/printableshowquotes.aspx?id=98>> (accessed 1.10.2016).
20. The promo is tagged by the PBS slogan, "Stay curious." This ad can be watched among many other grand examples on: <http://www.errolmorris.com/commercials.html> (accessed 1.10.2016).
21. Mitchell Leslie, "The man who stopped time", Stanford Alumni: https://alumni.stanford.edu/get/page/magazine/article/?article_id=39117 (accessed 29.5.2014).
22. Jacques Barsac, La sept / vidéo 1987 portrait "Le Corbusier".
23. *Valley of the Shadow of Death*, J. Paul Getty Museum: <http://www.getty.edu/art/collection/objects/60602/roger-fenton-valley-of-the-shadow-of-death-english-april-23-1855/> (accessed 19.10.2016).
24. Errol Morris, "Which Came First, the Chicken or the Egg?" Chapter 1 in Errol Morris, *Believing is Seeing: Observations on the mysteries of photography*. London: Penguin Press, 2011, 3-71.
25. *Contempt*, Jean-Luc Godard, 1963. *The Dinosaur and the Baby* (1967): a conversation between Jean-Luc Godard and Fritz Lang (61 minutes) in the Special Edition DVD *Contempt*, Criterion Collection.
26. *Contempt*, Jean-Luc Godard, 1963.
27. "Picasso is painting," an excerpt from *Le Mystère Picasso* by Henri-Georges Clouzot, 1956: <https://vimeo.com/27500965> (accessed 10.10.2016).
28. Gabrielle Esperdy, "Instruction to Consumption: Architecture and Design in Hollywood Movies of the 1930s," *The Journal of American Culture*, Volume 30, Number 2, June 2007, 198-211, quote p. 199. Esperdy also states: "Beginning in the 1920s the architectural press gave increasing coverage to the growing film industry. Magazines such as *The American Architect*, *The Architectural Record*, and *Pencil Points* heralded motion pictures as an ideal field for architects given their spatial, structural, and aesthetic knowledge. They

- also argued that movies offered an opportunity for imaginative, even fantastic, architectural exploration since set design was unburdened by exigencies of program and construction (Carrick 444; Zeigler 547)."
29. Esperdy lists *Mothers Cry* (1930), *Susan Lenox – Her fall and Rise* (1931), *The Lady Refuses* (1931), *The Guilty Generation* (1931), *Street of Women* (1932), *Ann Carver's Profession* (1933), *Dead End* (1935), *Convicts at Large* (1937) and *Bad Boy* (1939).
30. Esperdy, "Instruction to Consumption", 199.
31. Reginald Blomfield, *Architectural Drawing and Draughtsmen*. London: Cassell & Co., 1912, 3.
32. Hani Rashid, "The question of questioning," in Neil Spiller and Nic Clear (eds.), *Educating Architects: How tomorrow's practitioners will learn today*. London: University of Greenwich, 2014. 294.
33. Quoted in Bernard Hoesli (ed.), *Alvar Aalto - Synopsis: Painting, Architecture, Sculpture*. Basel: Birkhäuser, 1980, 24.
34. Dana Buntrock, "Japanese Architectural Education in a Neo-Liberal Era," written for the Architectural Institute of Japan, February 2011: http://www.ced.berkeley.edu/downloads/pubs/faculty/buntrock_japanese-arch-education-today.pdf (accessed 15.10.2016).
35. Quote from the introductory lecture of Professor Robert Krier in autumn 1993 (recorded by the author); he didn't recall this particular statement in the summer of 2014 when the author asked him about it, but added "yes, we did those things in those times".
36. TUWIS Archivierte Statistiken: <http://www.tuwien.ac.at/ud/stud/> (accessed 15.10.2016).
37. Students' explanations for dropping out of TU Vienna: http://www.studieren.at/media/130123_Gründe%20für%20Abbruch.png (accessed 15.10.2016).
38. Le Corbusier, Jacques Barsac, *La sept / vidéo*, 1987. The French original goes: "Je suis devenu architecte dans le sens le plus licite vis-à-vis du bon dieu et non pas dans le sens des écoles peut être. (...) Je suis parti avec quelques sous dans ma poche [...] vers l'Italie, pourquoi vers l'Italie, et bien pour voir des choses désintéressé. Pourquoi pas dans une école comme mon père me conseillais d'aller, je disais dans quelle école.. je n'en sais rien. Je ne sais pas ce que je vais apprendre. D'abord je vais voir ce que j'ai à apprendre."
39. Vezio Nava, "Tiilimäki 20," in Harry Charrington and Vezio Nava (eds), *Alvar Aalto – The Mark of The Hand*. Helsinki: Rakennustieto, 2011, 41. See also Alvar Aalto, "What is Culture", Keynote speech at the centenary celebration of Aalto's school, the Jyväskylän Lyceum, 1958. Reproduced in Göran Schildt, *Alvar Aalto – In His Own Words*. Keuruu: Otava, 1997, 15. "Education cannot be educated. ... What we need is the mysterious concept we call culture. (...) ... it cannot be taught: it arises spontaneously through a mysterious process of accumulation."
40. Lebbeus Woods, "Underground Berlin: The Film Treatment", 2009: <http://lebbeuswoods.wordpress.com/2009/09/15/underground-berlin-the-film-treatment/> (accessed 27.4.2014).
41. Robert Gessner, "An Introduction to the Ninth Art: A Definition of Cinema," *Art Journal*, Vol. 21, No. 2, winter 1961-1962, 89-92. Gessner claims that "... even though art instructors in increasing numbers have begun to project motion studies of paintings, sculpture, and mobiles. The confusion in nomenclature dates back to the inauguration of the subject. In 1930 when a teacher brought into a classroom a circular tin can containing silver salts fixed on a cellulose nitrate base, the contents were called motion picture, or if the can were shipped from the Hays Office, a motion picture classic. In 1935 this circular tin was called an audiovisual aid. By 1940, it was a film; by 1950, a kiné, which, on Madison Avenue at least, was an abbreviated homage to the Greek original. By 1955, the can was labelled a communication, or more elegantly a communication art. Currently and more frequently, it is called cinema, which, Fowler points out (to compound the confusion), 'is not the Greek word kinema at all, but a curtailed form of cinematograph...'" Ibid., 89.
42. See Alberto Peréz-Gómez, *Architectural Representation and the Perspective Hinge*. Cambridge, MA: MIT Press, 1997, 3-8. See also: Jean-Pierre Vernant, *Myth and Society in Ancient Greece*. Transl. Janet Lloyd. Cambridge, MA: MIT Press, 1988. Jean-Pierre Vernant, *Origins of Greek Thought*. New York: Cornell University Press, 1984. Frank Zöllner, "Anthropomorphismus: Das Maß des Menschen in der Architektur von Vitruv bis Le Corbusier", in Otto Neumaier (Hrsg.), *Ist der Mensch das Maß aller Dinge? Beiträge zur Aktualität des Protagoras*. Möhnesee: Bibliopolis, 2004.
43. Claude-Alain Duhamel and Carole Balaz, *Le Gros Dico des tout-petits – 3000 mots racontés par les enfants*. Paris: Éditions Jean-Claude Lattès, 1993, 42. The definition of an architect runs as follows: "Un architecte / C'est un métier, un travail pour un monsieur. / Ou peut-être ... quelqu'un qui est riche. / *Ça dessine des filles toutes nues" ["An architect / It's a job, a job for a man. / Or maybe... someone who is rich. / *He draws naked girls"].
44. Stefan Meißner, "Architektur – Diskurs – Interpretation," *Wolkenkuckucksheim*, Special Issue, "Zum Interpretieren von Architektur. Theorie des Interpretierens," 12. Jg., Heft 2, Dezember, 2008. "Wonach muss nun geschaut werden, um zu wissen, dass es sich um Architektur handelt? Zumindest für die moderne Architektur – oder um es neutraler zu formulieren: für die Architektur der Moderne – wird dies und damit

eine Definition von Architektur zum Problem. Die Architektur der Moderne scheint vielmehr, ganz ähnlich der modernen Kunst, kommentarbedürftig zu sein; sie ist nicht von allein zu verstehen. Dabei steht nun aber in Frage, ob der Kommentar zur Architektur selbst zur Architektur zu zählen ist. Meines Erachtens (...) ist Architektur überhaupt nicht ohne den sie beschreibenden Kommentar zu verstehen, denn unsere Vorstellung bzw. unser Wissen von Architektur wird durch Texte, Modelle, Fotografien und Filme über diese Architektur – und nicht nur durch deren reale Anschauung – konstituiert.“

45. See Marc Azéma and Florent Rivière, “Animation in Paleolithic art: A pre-echo of cinema”, *Antiquity* Vol. 86 Issue 332, 316-324. See also Marc Azéma, *La Préhistoire du Cinéma – Origines paléolithiques de la narration graphique et du cinématographe*. Paris: Édition Errance, 2011, 144-155.

46. Marc Azéma, “Animation and graphic narration in the aurignacian”, *Aurignacian Genius: Art, Technology and Society of the First Modern Humans in Europe Proceedings of the International Symposium*, April 08-10 2013, New York University: New York, 261: <http://blogs.univ-tlse2.fr/palethnologie/wp-content/files/2015/en-GB/Palethnologie-2015-GB-15-Azema.pdf> (accessed 15.10.2016).

47. “Documentaries clearly have come of age. When I first started making them years ago there was a received view of how you were supposed to ply this particular trade. However you want to describe it, cinema vérité, direct cinema, whatever, I was told that you were supposed to shoot with a hand held camera, you were supposed to use available light, you were supposed to be the proverbial fly on the wall. To observe, but ‘don’t touch anything!’ whatever you do. And being a contrarian – I think that’s probably the best way to describe myself – I decided to do everything the wrong way. I lit everything, I put a camera on a tripod, and I got people to directly address the camera. Part of this idea is that there’s a way to capture truth in filmmaking. You observe a set of rules, procedures and miraculously, truth results. I have never thought it’s that easy. Truth is the central goal, but it’s an elusive one. Style doesn’t guarantee truth. Just because you do things in a certain way doesn’t mean that they’re more truthful as a result.” Errol Morris’ BAFTA lecture *Investigating with the Camera – The Annual David Lean Lecture*, 2011, November 6, 2011: http://guru.bafta.org/sites/default/files/dll_errolmorris_transcript_final.pdf (accessed 11.10.2016).

48. Rudolf Arnheim, “The thoughts that made the picture move”, in *Film as Art*. Los Angeles CA: University of California Press, 1958, 161.

49. *Contempt*, Jean-Luc Godard, 1963.

50. Marc Azéma, *La Préhistoire du Cinéma*, 21; my translation. As Walter Benjamin argued: “... there is a contrast between all [these] forms and the story, which is one of the oldest forms of communication. It is not the object of the story to convey a happening per se, [...]; it embeds it in the life of the storyteller in order to pass it on as experience to those listening.” Walter Benjamin, “Some Motifs in Baudelaire,” in *Illuminations*. Transl. Harry Zohn. London: Fontana Press, 1973, 154.

51. The GEH Brownie Collection: <http://www.geh.org/fm/brownie/htmlsrc/index.html#E130.00034> (accessed 30.5.2014).

52. Honda, “The Cog” commercial, director Antoine Bardou-Jacquet, 2003 The crew had about 1 month in script, 2 months in concept drawings, 4 months in developing and testing, and taking 600 takes to make a 2-minute commercial: https://www.youtube.com/watch?v=_ve4M4UsJQo (accessed 7.10.2016).

53. See Martin Loiperdinger, “Lumiere’s Arrival of the Train: Cinema’s Founding Myth,” *The Moving Image*, 4:1, Spring, 2004.

54. The architect Minoru Yamasaki lamenting about the destruction of Pruitt-Igoue in James T. Patterson, *Grand Expectations: The United States, 1945-74*. Oxford: Oxford University Press, 1997, 336.

55. K. Yussuf Billah and Rober H. Scanlan, “Resonance , Tacoma Narrows bridge failure, and undergraduate physics textbooks,” *American Journal of Physics*, Vol. 59, N°2. February 1991: <<http://www.ketchum.org/billah/Billah-Scanlan.pdf>> (accessed 30.5.2014). As in this article, “the engineers’” viewpoint is presented to the physics community to make it clear where substantial disagreement exists. For the video see: <https://www.youtube.com/watch?v=j-czjXJSxnw> (accessed 10.10.2016).

56. *The Rissa Landslide*. About 6’:30” into the film: <https://www.youtube.com/watch?v=3q-qfNIEP4A> (accessed 10.10.2016).

57. Robert-Jan Van Pelt, “Architecture of Dialogue and the Prophecy of Preservation,” 291.

58. Gregory Gargisio, “The Lesson of the Towering Inferno – A New York City Firefighter speaks out against lightweight skyscraper design,” *Architectural Record*, 1.4.2002.

THE ARCHITECT – COMPOSER OR CONDUCTOR?

Esa Laaksonen

Peter Zumthor, the Pritzker Prize winning Swiss architect, has written about feelings in architecture: “I enter a building, see a room, and – in the fraction of a second – have this feeling about it.”¹ What do we think happens in that second described by Zumthor on us entering a space that was previously unknown to us? What “emotion” and “atmosphere” occur? What means does the architect have in the creation of atmosphere amidst the users’ world of experiences? How is it possible to research and evaluate the atmosphere of space? How does the concept of atmosphere engage with architecture theory?

Our experiences are based on, among other things, sensory perception, genes, history, the moment, time and circumstance. There has been much in-depth research in recent times on the functions of the brain and their links to our perception. New research methods have provided opportunities to measure and observe the functioning the brain, and even extensive samples. Despite the evolvement of research, however, a majority of neuroscientists are still of the opinion that we know hardly anything about the functioning of our brain. As Alva Noë states:

(But) what needs to be kept clearly in focus is that the neuroscientists, in updating the traditional conception of ourselves (...), have really only succeeded in replacing one mystery with another.²

Genes and our own background history clearly play an important part in our experiences. We frame, select and emphasise our experience subconsciously (and consciously) based on what has previously taken place, often quite irrationally. Time is the fourth dimension of architecture; it is known, for example, that we taste food in different ways at different times of the day or at different moments, lighting conditions or company. So why wouldn’t our experience of architecture be tied, for instance, to the smell of an oven casserole?

In his writings Alvar Aalto tells about our architectural experiences from the “ultraviolet” spectrum.³ As I understand it, here he means that in addition to architecture’s “observable” spectrum (for example, a building’s function, economic aspect, technology, hygiene, building location) our environment is determined by an “invisible” spectrum in which (according to Aalto) “purely human questions” have an influence.

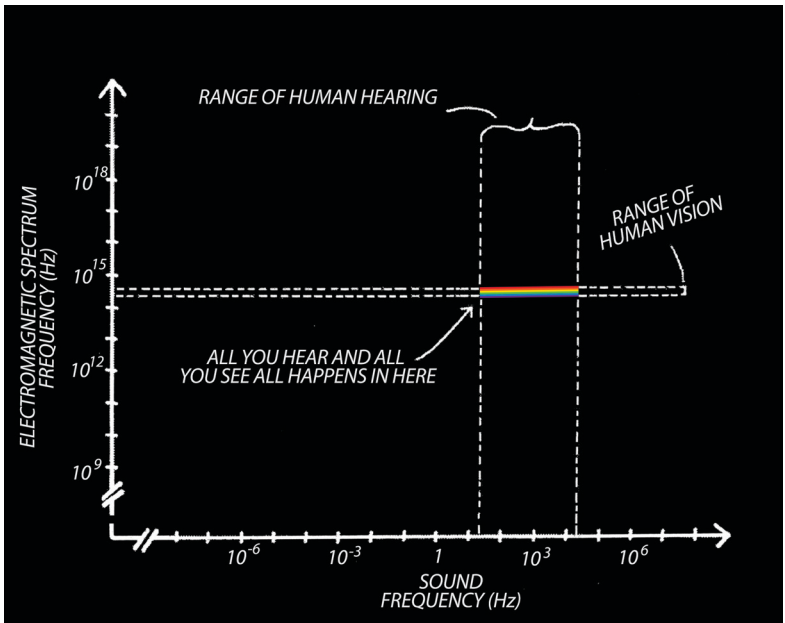


Fig. 1: "The sliver of perception".

The above diagram (Fig. 1) presents our range of perception in the area of visible light as well as our range of hearing. The “ultraviolet” area described by Aalto is located, as I understand it, outside the narrow area of perception presented in the diagram. The architect has to be aware of the relation between man’s world of experience and the built environment in order for the designed environment to be observable and so that it will contain also opportunities beyond traditional fields of observation; that is, the relationship of the building to the area of “purely human questions” mentioned by Aalto.

In the summer of 2014 a seminar “Architecture and Atmosphere” was organized in Helsinki.⁴ During the presentations and discussions that followed, the participants often referred to expressions commonly used in music, which in itself is not unusual because there is probably no music that is not based on the idea of creating a mood. There probably exists no architecture either without mood, yet we don’t have a set of concepts specific for describing mood in architecture and so we often use music terminology in our rudimentary debates. During the seminar discussions, an architect was also compared to a composer and conductor.

The roles of the architect and composer really are in a way very similar. The architect defines his or her buildings mainly through design documents (cf. sheet music) and it is realised and performed by the users of the building. But does the architect, in addition to “composing”, really also possess the characteristics of a conductor?

If an architect were a composer, he or she would have the opportunity to give his or her designs a notation and key (minor or major) and tempo markings, as well as orchestrate the composition for different instruments, provide hints for how to play it (piano or forte?), state the singers’ vocal register and a lot of other things. As a composer, the architect would give his or her building, in addition to its form and function, also the basics of tonality and mood.

If the architect were an orchestra conductor, he or she would provide an interpretation of his or her building or would make use of a user, a visitor to the building, as his or her orchestra. He or she would direct the spectator, the gaze, coordinate his or her observations, force the user to move, or to move in a certain rhythm, and encourage the user to participate in a certain mood. Is this what Zumthor means?

*

I have written this essay while in Germany, in the small idyllic rural Saxon village of Eibau, with a population of under 5000 (including a few smaller neighbouring villages). I take the example of the architect as a composer from the approximately fifty-year-old Siedlung-type terraced housing in the village located in the vicinity of where I am staying. In the Siedlung there are approximately 40 two-storey dwellings on a spaciouly planned area.

The architect, whose name is unknown to me, has provided an excellent frame and an empty canvas for the residents themselves to tend to their diverse front- and back gardens: each dwelling has the same-sized yard area, the design, implementation and structures of which have quite clearly been fully made in accordance to the choices of the residents themselves. In all cases the result resembles its author and the environment has become incredibly diverse specifically due to the residents' own inputs.

Some of the yards are minimalist, some exuberant, some colourful, and some overwrought. There is even one yard with a miniature railway for the wonder of the various garden gnomes. In the same way also the treatment of the front yards and the completely differing front doors and windows (which have been independently renewed at different times) give the totality something of the character of the residents. The area remains, however, an architectonically uniform totality because the basic structure is well grounded: the architect has notated and punctuated his work, given it a key (in this case it is most definitely composition in major!) but the orchestra (the residents) play their own melody. There are other kinds of examples, too, especially, unfortunately, in Finland: if the steerage of the design of the residential area (the so-called "neighbourhood design guidelines") is too detailed it easily leads to monotony and a result perceived as dull. An area "dies" and is perceived as alien to the resident when the use of the environment is overly controlled.

In what way does a conductor-architect operate? In her Masters thesis on the buildings of the Helsinki Olympics, art historian Hilikka Högström quotes from Mark Wigley regarding the principles that led to the whiteness of Functionalist architecture and explains how, for instance, in connection with the Weissenhof-siedlung exhibition in Stuttgart in 1927, Ludwig Mies van der Rohe had written to the chosen architects a few months before the opening requesting them "to choose the lightest shade of colour possible" to preserve a sense of "unity". Six of the architects agreed that they would use "off white" in the facades but colour in the details.⁵ The black and white photographs of the time only enforced the presence of "whiteness", but in reality also a lot of strong colours were used in the buildings. Mies acted as a kind of conductor-architect at the Weissenhof housing estate, who directed the key and tempo of international architecture in regard to the white surfaces and probably over more extensive aspects, too.

Is the architect thus a composer or a conductor? I would say that at best an architect can be both a good composer and a talented conductor who knows their orchestra. Poor composers and inept conductors are unfortunately much more common than competent ones. It is possible to patch up a bad composition in retrospect but one should not become the conductor of architecture if one is not quite confident about the sound of one's orchestra.

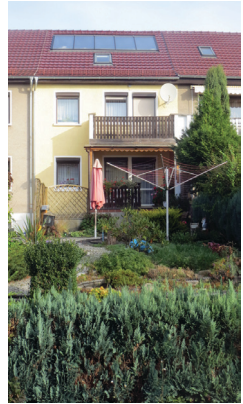


Fig 2: A "Siedlung" row house in Eibau, Germany, where only the residents' imagination has set the limits for their own facades and gardens. The distinct lines of the architecture prevent any environmental chaos. The architect has written a composition, the spine of which can withstand the different interpretations.

Notes

1. Peter Zumthor, *Atmospheres – Architectural Environments – Surrounding Objects*. Berlin: Birkhäuser, 2006, 13.
2. Alva Noë, *Out of Our Heads: Why You Are Not Your Brain, and Other Lessons from the Biology of Consciousness*. New York: Hill and Wang, 2010, 6.
3. Alvar Aalto, "Rationalismen och människan", 1935 lecture; reproduced in English in Göran Schildt (ed.) *Alvar Aalto in His Own Words*. Helsinki: Otava, 1997, 91.
4. "Architecture and Atmosphere" seminar, Helsinki, June 2, 2014, organised by the Alvar Aalto Academy and the Tapio Wirkkala – Rut Bryk Foundation. The seminar comprised of contributions from Jean Paul Thibaud, Tonino Griffiero, Gernot Böhme and Juhani Pallasmaa, and chaired by Esa Laaksonen. See also: "Architecture and Neuroscience" seminar, Helsinki, June 2013, with contributions from Juhani Pallasmaa, Harry Francis Mallgrave and Michael Arbib. See Philip Tidwell (ed.), *Architecture and Neuroscience, A Tapio Wirkkala – Rut Bryk Design Reader*. Espoo: Tapio Wirkkala Rut Bryk Foundation, 2013.
5. Hilikka Högström, "Great is to triumph, greater far noble combat – Helsingin urheiluarkkitehtuuri vuoden 1940 olympialaisiin." Pro gradu, Helsingin yliopisto, taidehistorian laitos, 2001. Mark Wigley, *White Walls, Designer Dresses. The Fashioning of Modern Architecture*. Cambridge, MA: MIT Press, 1995. As Wigley points out, in fact there was a lot of colour in the exhibition. One-third of the houses were completely off-white, and most of the rest were various light shades in the spirit of Mies's initial request (Behrens's apartment block in light ochre, Mies's in pink, Hilberseimer's in light gray, Bourgeois's in light red ochre and so on). However, those of Bruno Taut, Mart Stam and Le Corbusier (in partnership with Pierre Jeanneret) were heavily coloured.

WHAT ARE WE BUILDING UPON? A SHORT DISCOURSE ON BUILDING AND MATERIAL

Klaus-Jürgen Bauer

In the domains of architecture, art and design – fields that intersect with and partially duplicate each other – the involvement of forms or objects of remote origin does not result from the same constraints. It proceeds from a considered choice and has a meaning in privileged circles aware of the immense possibilities offered, theoretically and ideally, by making the entire planet accessible to everyone's gaze.

(Marc Augé, *Non-Places*, 1992)¹

What today is the most important material on a construction site? Correct: glue. Building means today gluing, and everything that can be glued can be built, and since it is today possible to glue anything – really anything – we can build anything. When building today we are totally free: there are no limits. The only thing that may limit us architects – perhaps at the very least – is the fear of our discourse. The question remains, if our building remains within the architectural discourse, where do we want it to be? This discourse could be called, for instance, “A discourse on such architecture that is represented in today's architecture magazines”. Perhaps within this discourse we may sometimes still find relevant limits regarding the budget or building codes, but certainly there are no limits as regards materiality.

No limits anymore

It used to be different. Back then, in the time before the glue, building was termed *complying*. Complying meant the sensible, lasting, economical and – within the limits of the discourse – correct, perhaps even beautiful, joining of building materials. This was only possible if everybody – including the architect – possessed a lot of experience and knowledge. There were only a handful of building materials, but they were tricky to use well. Those materials were an expensive factor in building, whilst not the most expensive one, however. The most expensive part was transporting the building materials from their original site – a stone quarry, brick kiln or forest – to the construction site. All other factors played a minor part. There was basically no home automation, the work was done by day labourers

and one could hire as many of them as one wanted for a moderate price. That is another reason why big building projects were at all times politically important for reflating the market. Some specialists, however, were expensive: carpenters, cabinet-makers and locksmiths, and their work represented the limiting factors in architecture, the *Differentia*.

Differentia

By using these crafts in a more or less artistic way, the client could establish his status. Therefore, the personal knowledge and experience of all the people participating on the construction site – planner, masons, foreman – were very important. Within the architectural orders, the users could develop variations, which again supported the *Differentia* – the unique feature of the client. In the expensive sector of materiality these experiments were not appreciated, however, because it might bring about fatal consequences for the client. Besides the reliability and knowledge of the workers, it was important to find suitable material close to the construction site in order to keep transportation costs low. One can conclude that architecture in its 14,000 year history was basically determined by a handful of building materials, such as wood, iron, stone or lime, and their close availability. The correct, lasting and sensible complying of these valuable (because they are expensive) materials created in sum the value of the building, provided the experience and knowledge of the participants.

Ever since, we have replaced the complying with gluing; things are truly different. Today formal experiments make sense and are highly appreciated because they bring the necessary *differentia* within the architectural discourse. Costs of materials have been minimized, as opposed to labour costs. Transportation costs are basically non existent.

The design – the formal attitude – needs a particular blue or green veined marble? No problem! The stone will be ordered via email from Brazil or China, shipped and then transported by truck to the construction site. On its way, the stone will pass through many hands – traders, customs officials, distributors, and so on – and yet transportation costs are insignificant. The knowledge about how the stone is cut in the stone quarry is unimportant. Old-fashioned experience of how to use the stone correctly has become obsolete for two reasons. First of all, nobody really knows the roughly 30,000 norms which regulate the building industry in Austria and the whole of the EU and, secondly, we can glue it! Any product, meaning any product from anywhere in the world, can be applied on any construction site in Austria, Europe or elsewhere, because it can be glued. The industrialists supply each material with norms and provide the suitable glue to accompany it. Today, the user doesn't have to know anything else on the construction site and the same is true for the architect. Perhaps for the first time in the history of mankind – thanks to glue – we can freely and carelessly follow our formal feelings. If we might think that the search for idea and formal feelings over

mere complying may have a “material precedent” in the history of architecture, it comes from a different trajectory than glue. It took philosophers Gilles Deleuze and Felix Guattari to argue that reinforced concrete provided the opportunity to build ideas:

...reinforced concrete has made it possible for the architectural ensemble to free itself from arborescent models employing tree-pillars, branch-beams, foliage-vaults. ... It is no longer a question of imposing a form upon matter but of elaborating an increasingly rich and consistent material, the better to tap increasingly intense forces.²

But glue surpassed concrete to this end!

No limits anyway - distinctions

It was Thorstein Veblen, who contributed the term *distinction* to our discourse in around 1900 – glued it into our discourse – and who came up with the insight that we always need to come up with something new in the field of culture and good taste – including architecture – and that we need to be ahead of fashion if not create fashions ourselves. We have to be distinct in order to exist. That is the main reason why we need to build architecture in an eye-catching manner. Glue is our powerful witchcraft and we no longer need to reflect upon materials. We just spell out a wish and it comes true. This applies for exotic blue stone as well as for banal materials. Today, most of the brick we use in Austria is fabricated in India, not in local Austrian factories, but they are just as easily available. One desires brick and the bricks just appear. Period.

The discomfiture that many people feel in such a highly industrialized life has reached many areas. We found similar discourses related to nutrition and food over the past decades. Here we find already a change in outlook: local production, local distribution and care about the ingredients, in particular unhealthy additives, have reached large parts of society.

How is the situation in architecture? Do we ask ourselves enough questions, such where do our materials come from and what are the consequences, side effects or health risks of glued constructions? The discussions about the negative impact of mold or VOC (volatile organic chemical compounds) which may contaminate the housing situation is only about to get started. This discourse has certainly not reached large parts of society yet: architecture is lagging behind.

Notes

1. Marc Augé, *Non-Places: Introduction to an Anthropology of Supermodernity*. Transl. John Howe. London: Verso, 2008, xxi.
2. Gilles Deleuze and Felix Guattari, *Capitalism and Schizophrenia 2: A Thousand Plateaus*. Transl. Brian Massumi. Minneapolis, MN: Minnesota University Press, 1980, 328-329.

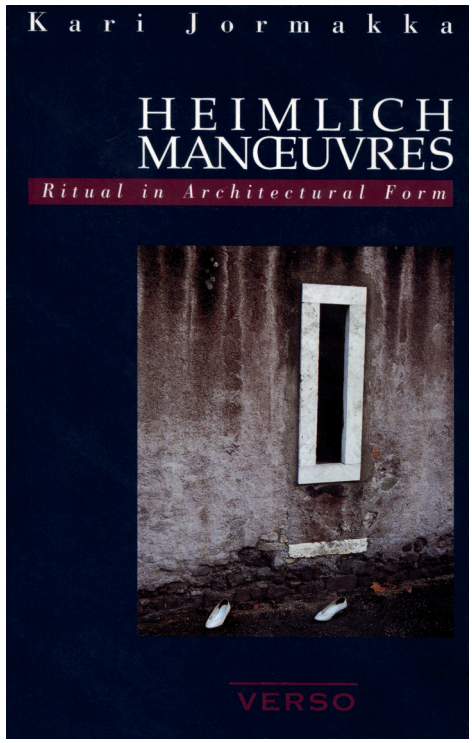


Fig. 1: Kari Jormakka, *Heimlich Manœuvres: Ritual in Architectural Form*, 1995.

A THEORY IS NOT WHAT YOU BUILD

Mark Gilbert

Kari Jormakka arrived in Vienna in late 1998 at a significant moment in the city's urban and architectural development. The dissolution of the Soviet Bloc in the early nineties was finally delivering tangible socio-economic impulses, and Austria had committed itself to the European Union. The city was growing again, and there was a lot to be built. At the same time, the older guard of Viennese architecture, whose post-modern interpretation of the Viennese tradition had drawn so much international attention – the Hans Holleins, the Hermann Czechs, the Boris Podreccas – were making way for a new generation of architects who were exploring new meanings and methods in their work. Kari's appointment as Professor for Architectural Theory at Vienna University of Technology (TU Wien) positioned him in the middle of an emerging, and rather flammable, debate.

I strongly maintain that Kari's contribution to this discourse, while not dogmatic, provided many young architects with decisive impulses that helped them to formulate original and valuable positions. How did this unfold? As the parameters of Vienna's specific discussion were complex and intertwined, it is helpful to recapitulate what was at stake in the early 2000s.

Spectacle, Sachlichkeit and Superdutch: Vienna Anno 2000

Through his position at the Viennese Academy of Applied Arts, as well as his virtuosic manipulation of the medial spectacle, by the turn of the millenium Wolfgang Prix had in many ways established himself as the new *alpha* on the Austrian range. He was able to make his presence known beyond academia and the media as well. In 2002 he was appointed chairman of the *Gundstücksbeirat*, which is the municipal commission responsible for adjudicating the quality of social housing in Vienna. At that time, social housing represented over 90% of the new housing production in the city,¹ so this meant that Prix and his principles of deconstructive architecture asserted an enormous influence on what was being built. The effects were quickly perceptible. Social housing, in the post-war years too often the grey lady of the Viennese scene, was suddenly given a featured role in the architectural spectacle. So, okay. If architecture must burn, it was now at least able to ignite with public funding.

But many designers, less drawn to the bonfire of the vanities, sought inspiration from other currents and traditions. Adolf Krischanitz and Michael Loudon, for example, looked more to new developments coming out of Switzerland that

meshed ideas from the Italian neo-rationalist *La Tendenza* with Teutonic *Neue Sachlichkeit* and concepts from fine art movements like *Arte Povera* and Minimalism.² This new Swiss architecture had its inception in Dolf Schnebli's embrace of *Architettura razionale* at the ETH Zürich from the seventies to the nineties. Schnebli brought, for instance, Aldo Rossi to the school as a guest professor and promoted the Tessiner rationalists. Many of the decisive figures in the *Nordschweizer* scene around the year 2000, such as Jacques Herzog, Pierre de Meuron, Roger Diener, Marcel Meili and Christian Sumi,³ had studied with Rossi and/or Schnebli, or worked in Schnebli's studio. The intellectual foundation of this architecture – simplicity, materiality and an intense interest in the relationship between urban morphology and architectural typology – asserted a strong influence on many young practices that were emerging in millennial Vienna.

In 1995 Rem Koolhaas brought out *S,M,L,XL*, and late the following year *Arch+* released the German translation of the book. Winy Maas and Jacob van Rijs started offering their Datascape studios at Rotterdam's Berlage Institute in 1997,⁴ and in December 1998 Winy Maas published his seminal text "Datascape: The final extravaganza" in *Diadalos* issue 69/70. If the *Tendenza* aspired to uncover the ageless principles of the historic city, the new Dutch school grappled with the economic fluxes and regulatory undercurrents that shape the neoliberal metropolis. While Koolhaas – like Pritz – was featured in the influential exhibition *Deconstructivist Architecture*, curated by Philip Johnson and Mark Wigley, held at New York's MoMA in 1988, by 1996 it had become clear he was less interested in formal neo-constructivism than in what he called "programmatic alchemy".⁵ His position endeavoured to deliver the death blow to typology as method, as well as to the sort of urban connoisseurship that formed the bedrock of *La Tendenza*. Koolhaas' writings strove to explain OMA's work, which was in and of itself a pursuit of adequate architectural forms for the multifarious programs that Big Finance bankrolled, as well as the heterogeneous urbanity these monetary vectors produced. MVRDV, on the other hand, didn't seek to cast away their responsibility as planners into the churning slipstream of neoliberalism. Rather, their Datascapes attempted to generate concrete urban and architectural form out of the fundamental regulatory parameters that govern contemporary socio-economic activity. The belief here is – to paraphrase Bart Lootsma – that the influences upon an architectural design can be quantified, and that the building itself then becomes an embodiment of the social forces that undergird these numbers.⁶ The idea of convoluted programming and computer-friendly quantification as a generator of form quickly became very attractive for Viennese students, especially so in the tech-savvy halls of the University of Technology.

A question of meaning. Heimlich Manœuvres: Ritual in Architectural Form

Kari Jormakka was assistant professor in Ohio State University at the turn of the eighties and nineties, during its Peter Eisenman era.⁷ This early training made

deconstruction and generative design methodologies a life-long interest of his. With this background and inclination, he engaged and exchanged with numerous leading architects working in the expressive architectural palette that so defined the early and mid 2000s in Vienna. This unquestionably enriched the scene: Kari was a formidable partner in discussion, and his encyclopaedic knowledge and sharply analytical intellect contributed to the formation, interpretation and presentation of ideas for some of Vienna's leading offices. Yet, while Kari's understanding of form and its design methodologies was comprehensive,⁸ it can be argued that his most lasting contribution to the contemporary discourse is to be found in other, arguably less media-friendly or seductive themes.

For many architects, artists and social scientists in Vienna, Kari's most incisive and original work was captured in his book *Heimlich Manœuvres: Ritual in Architectural Form* (Fig. 1), which was published by Bauhaus University Weimar's publishing arm Verso Verlag in 1995. This book was less concerned with how architectural form was produced or interpreted than it was with sifting out how social and cultural meanings are imparted through the active, often unconscious use of architectural space itself. In emphasizing how architecture performs upon the subjective user, *Heimlich Manœuvres* formulated an alternative to formal and semiotic systems of architectural interpretation. The methodology was linguistic and recalled Martin Heidegger in its use of etymological geneses, yet Kari thought it to be more in the mould of the seventh century thinker St. Isidore of Seville, who used the analysis of the words that described the two fundamental activities of civilization – agriculture and construction – to explain their traits and origins.⁹

The book's argument proposed that architecture could be best understood through human ritual. Rituals refer to nothing other than themselves and create their own reality; they re-create rather than represent. What is important is that rituals are participative and are "based upon the interaction of the ritualized body with conventions inscribed within the social body."¹⁰ These interactions necessitate architecture, as these interactions require specific types of spaces in order to be effectively performed.¹¹ Thus, cultural interactions are conditioned by the spaces that support them – and the spaces are conditioned by the acts that they embrace and contain. The claim was that the interaction of performed rituals with the built space that encompasses them shape and define social practice: hierarchy, domesticity, property, pedagogy, the city, the state.¹²

Of great importance was the recognition that these rituals were primarily unconscious acts. Certainly, there are many forms of conscious rites – religion relies heavily on such practices, for example – but the focus in *Heimlich Manœuvres* was on the small, unwitting ceremonies of our daily lives. A certain essence of these quotidian practices are the mechanisms of power: they generate the hierarchical microstructures that underpin the functions of society. Yet these microstructures are not simply about *perforce* processes of dominance and subjugation; in Kari's reading they are much more elegant and omnipresent. Rituals are present in the finely graded, performative interactions that constitute everyday social practice.

They do not represent or symbolize anything, but they enable us as individuals to access and to influence (as well as to be influenced by) social groupings, and they let us constantly assess our relation to and position in these groups.¹³ By providing each of these processes of ritual interaction with an appropriate spatial framework, architecture engages human behaviour in a subtle, dialectical dance of mutual and interactive generation.

Performative meanings and the production of space

Heimlich Manœuvres and its ideas fired a lively debate upon Kari's arrival in Vienna, some four years after its initial publication. The conflation of performative meanings with ritual and space was of great assistance in breaking through the conceptual logjam that characterized Vienna around the year 2000. In the early noughts a small community developed in the city – artists such as Sabine Bitter, Helmut Weber and Barbara Holub, the philosopher Robert Pfaller, and architects such as Sabine Pollak, Roland Ritter, Lena Streeruwitz and myself – which engaged with Kari and discussed the issues his book raised.

To some of us in the group, Kari's discussion of performative meanings and ritual suggested an innovative and comprehensive explication for processes that underlay the production of social space. These concepts enriched and expanded Henri Lefebvre's abstract Marxism, brought the idea of typology out of the analogical and rationalistic straitjacket inherent in the *La Tendenza* and offered a humanizing alternative to the neo-liberal, quantifying empiricism of the new Dutch school.

In the first moment, there was much interest in how social ritual and performative meanings might intersect with critical-materialistic space theory, which had by then become a burning issue in sociology, public art, and speculative architectural practices. With the publication in 1991 of an English translation of Lefebvre's 1974 classic *La Production d'Espace* [*The Production of Space*], the concept of spatial practice as a lived space of experience slowly spread out from its Parisian domicile. By 1999, it had reached Vienna, and energized a generation of young architects who were deeply concerned about the social underpinnings of urban space and architectural form.

La Production d'Espace had inspired new lines of thought throughout architecture theory. Yet, as powerful as its ideas were, the project's global-political ambitions meant that it delivered conspicuously few practical insights into causal process and it said little about how the finely grained realities of life contributed meaning to the production of space. What Lefebvre proposed was a superordinate theory which classified space as a social product within the Marxian tradition. His project was a philosophical framework that sought to define space, to politicize and categorize it within western history. What it did *not* do was develop analytical tools that were directly applicable to design processes for architecture and urban planning.¹⁴ These disciplines seek to formulate solutions for the continuously de-

veloping spatial needs of a dialectically evolving society; they require frameworks of conceptualisation capable of directly connecting social practice with concrete spatial situations. Many analytically inclined actors in the Vienna scene tried to envision how the potency of Lefebvre's abstract concepts could be more directly applied to meaning in architectural space.

While Kari always seemed to regard the French Marxists with a great deal of scepticism, many in the community were fascinated by the possibilities that his ideas might offer in this regard. Pursuing the principles outlined in *Heimlich Manœuvres* further, ritual could be regarded as a conceptual tool for producing tangible connections between social practice and spatial organisation. In enacting ritual, the body interrelates with specific spatial situations, in such a way that the ritualized body and the space of ritual are existentially co-dependent and ultimately construct each other in a dialectic manner. By defining social practice as a performance of everyday rituals, social relations could be linked with the production of specific forms of architectural and/or urban space. Seen through this lens, it could be said that forms of social relations (rituals) give rise to formal spatial organisations (social space). These spatial organisations situate people in relationship to each other, as well as to the space that contained them, and the action of ritual imbue this relationship with social meaning.

It could be argued that Kari's postulation regarding ritual disentangles some of the abstraction and philosophical vagueness of *La Production d'Espace*, most particularly the question of how space and praxis are functionally and substantively interwoven. This addressed the essence of how space might carry value and meaning: if space was a socio-economic product, as Lefebvre justly claimed, then the conjoining of ritual activities and performative meaning would not only express the motivation behind the form of a given space, it would also invest the space with social significance. This interconnection of ritual, form and meaning hypothesised a mechanism for analysing and understanding how meaning could be imputed into space and endowed both the form and the organisations of social space with an inherent and substantial cultural value.

Type, or not to type

This argument implies perforce a certain specificity; the claim that particular social relations give rise to distinct, identifiable spatial organisations inevitably raised the issue of type. In this case, the formulation would be as follows: *specific types of social relations engender specific types of spatial organisation*. Accordingly, through the principle of performative meaning, type would both embody and convey the meanings inherent in that social relation. This formulation would seem to closely parallel Quatremère de Quincy's assertion that type is the abstract essence of an idea embodied in form, and therefore a form that exemplifies the meaning behind the idea itself.¹⁵ Yet, Kari wanted in no way to hitch his concepts to the draught-horse of type; it was certainly no oversight that *Heimlich Manœuvres* did

not discuss the issue. Kari seemed rather ambivalent about the subject. Although his pedagogical publication *Basics: Design Methods* (2008) treated type as a respectable design tool,¹⁶ in *Geschichte der Architekturtheorie* (2003) he is very equivocal about what it can and cannot do. He did recognize that it operates as a vehicle for conveying historically accumulated meanings but was rather dismissive of the way that most architects applied the concept in criticism and practice.¹⁷

Around the turn of the millennium, Rossi's concept of the analogous city was widely regarded as the benchmark explication for type. For Rossi, type was an apparatus through which the city produces and reproduces itself. It is both process and object, a morphological building block of organised social space that conveys meaning. Rossi's idea of collective memory infuses these building blocks with a consciousness that binds individuals into an urban collective. The city is the amalgamated artefact of the individual activities and aspirations that it contains. In this sense the city is both an event and a form.¹⁸ With respect to the previously prevailing mind-set of the functionalists, this was a truly innovative ontology of the city, and it is a conceptual construct that has inspired more than one generation of architects. And, at a quick glance, this formulation might even resemble Kari's interconnection of ritual and space. However, the differences are very significant, and the semiotic and urban morphological implications of Rossi's concept were, for Kari, deeply fraught with problems.

His apprehensions had to do with the way that Rossi and *La Tendrenza* conceived of type as a vehicle for history and collective memory. In *L'architettura della città* [*The Architecture of the City*], first published in 1966, Rossi recognizes the significance of ritual in the production and maintenance of collective memory, but links it intrinsically to myth and monuments.¹⁹ The built artefacts of the city, structured by and expressed through type, give form to the singularity of place in the city. The artefact may become an event in and of itself, but it is an event that symbolizes only by reference to something of collective import: myth, memory, or ritual. Or, as Eisenman summarized it, they become "...the sign of the place as expressed in form."²⁰

The issue was not only that its signification was intrinsically referential; both the meaning and the form of Rossi's types were fundamentally invariable and inflexible as well (Rossi himself did not believe that housing types had changed since antiquity).²¹ Kari recognized that the manipulation and modification inherent to the design process rapidly compromised the semiotic content and functional patterning of a type.²² If there were indeed cultural meanings imbedded in a typological form, the appropriating and amending processes of analogous design would rapidly make it unintelligible. This inelasticity was also deeply ingrained in Giorgio Grassi's superbly materialistic form of rationalism, in which he used the lens of the enduring urban artefact to investigate design as a process of making. Grassi's conception of architecture, formulated as the translation of eternal typological principles into the language of the prevailing local building technique, left little room for suppleness of meaning or adaption to new social relations.²³

What Kari valued was conceptual processes that were lithe, agile and more amenable to the sort of necessary adjustments and redirections that good design demanded. Diagrams were therefore preferable to type; these were “a heuristic pictogram which liberates architecture from language, interpretation and signification while resisting typological fixation.”²⁴ The formal and spatial figures expressed within a diagram were not laden with any *a priori* meaning, they were free to follow the necessities of program and construction, or react to the inspirations and constraints of site. This is not to say that the forms and spaces that these diagrams produced would be free of meaning; it was understood that they would be invested with performative meanings through the activities they accommodated and the daily rituals that they would empower.

This interpretation made recent developments of German-Swiss architecture clearly comprehensible for many actors in Vienna. Without jettisoning *La Tendenza's* concern for the integrity of the existing city, post-millennium Swiss architecture extrapolated Grassi's primacy of materiality into buildings that were no longer burdened with fixated cultural interpretation or referential historical signification. As Jacques Herzog asserted:

We want to design buildings which provoke sensations, not ones that embody any particular idea... we are more interested in [using] direct physical or emotional impressions... to create works that are essential and understandable for everyone, ones which imprint themselves directly on our consciousness, through layers of context and culture, as sensations.²⁵

The intention stated here was to create an architecture of sensual experience, capable of conveying meaning, yet liberated from processes of analogy.

The homologous form: Space as an embodiment of social relations

Although its semiotic foundation was undeniably problematic, *La Tendenza* did possess the formidable ambition of explaining the totality of social, cultural and technological complexity that comprised the city. As Jane Jacobs pointedly stated, cities are “organized complexity,”²⁶ so there was a compelling desire at Kari's institute to go beyond analogy and explore how the production of complex patterns of urban social space might unfold.

The ideas of the Italian materialist semiotician Ferruccio Rossi-Landi offered those of us engaged with Kari's thinking an alternative avenue of inquiry. Rossi-Landi proposed that the production and exchange of commodities was related to the production and exchange of messages, i.e. language. Both were simply different forms for the communication of society, which is the process through which society produces and reproduces itself. As they were different aspects of the same social process, Rossi-Landi maintained that these were *homologous* forms of

the constitutive social relations underpinning culture.²⁷

The extension of this premise was that the homology between verbal and non-verbal communication also encompasses messages communicated in and through space. If ritual interacted with social space to generate non-referential, performative meanings, then the space, the ritual and the meaning they embodied would be homologous forms of an underlying, immaterial social relation. For example, the idea of exchange is a social relation that might take the form of, for instance, a floating market in Indonesia, a storefront grocery store in Vienna, or a supermarket in suburban Maryland. These dramatically different spatial organisations share little or no recognizable type-form, yet these spatial manifestations share a common origin in the essential concept of the social interaction they house.²⁸ Society communicates its relations through lived forms such as these; the totality of these homologically related forms provide society with its economic, linguistic and spatial order. These forms are necessary for producing, perceiving and reproducing society; without them, society cannot exist.

Furthermore, it followed that all the complex processes and interconnected information that flows into the production of social space could be regarded as homological forms that participate in Rossi-Landi's communication of society. These were all different, yet related formal manifestations of an underlying concept. Kari was well-versed in Wittgenstein and offered up the picture theory from the *Tractatus Logico-Philosophicus* (1922), with its metaphor of the gramophone as an image, to describe this process: the grooves of a record, the score on paper and the waves of sound share an internal logical structure that connect their diverse forms to the underlying, generative musical thought of the composer.²⁹ This recognition opened up new possibilities for imagining the variety of homologous forms involved in the production of social space. Not only would space be a formal manifestation of the thoughts behind a social relation – the plans and the planning, the process of financing and building, and, of course, the practice of appropriating the spaces for use would all be homologous manifestations of the same social process. Other aspects of cultural praxis – such as laws, regulations, social conventions and financial constraints, as well as economic intentions – will impinge or have a bearing on upon a given social relation and decisively influence both the form of its spatial manifestation, as well as its inherent socio-cultural meaning.

This brings us back again to Wittgenstein. What we are dealing with here are relationships between parts of the world – cases, in Wittgenstein's dictum, or, better yet, *facts*. Facts represent meaningful relations between the parts of the world: "The facts in logical space are the world."³⁰ The homologous forms of social relations – space, praxis, conventions, norms – provide worldly delineations for the case of social relations and thereby allow us to experience and comprehend them. When these homologous forms are meaningful, they can be said to be facts, and it is the totality of these facts constitutes the world. If we consider the city to be a world, it is these facts, which are embodied in homologous forms, that constitute

the city. Some of these forms can be expressed as material things – local climate, the prevailing organisation of a society's domestic space, or an existing division of public and private property. But others are immaterial – a society's common conventions on what *comprises* privacy, how building activities might be financed, or how building codes regulate the relationship of public and private rights. So, as in Wittgenstein's words, "the world is the totality of facts, not of things"³¹, we can understand the essential reality of the city to be manifested in a complex and finely intertwined matrix of material and immaterial social facts. The production of social space arises out of a process of creative interaction with this matrix, the homologous forms that it contains are both the ingredients we use to construct the city, as well as the recipes and know-how required for combining them. Social space, when we produce it, becomes, with all its attached meanings, a fact in and of itself. Through this process we generate and appropriate the spaces of the city, and how we act in – and interact with – these spaces endow performative meanings.

Facts. Or the use and abuse of data

The idea of the spatially generative matrix of social facts was very useful for critically evaluating the new Dutch school associated mostly with OMA and MVRDV. On a philosophical level, it offered a definition of civic identity capable of countervailing Koolhaas' rather nihilistic idea of the generic city. If a city was comprised not only of space, ritual and practice, but also of all the material and immaterial facts derived from the history of its social relations, then – despite the globalization of consumer products, building materials and West End shows – each city must be a *unicum*. These matrices of material and immaterial facts *are* the identity of cities, and no two urban places could share the same matrix.³² More concretely, this concept of facts as constituent urban building blocks offered a method for unravelling Datascares and combatting further maltreatment of information through algorithmic misappropriation. In the words of Lootsma, datascares return to "the hardest essence of modernism, which is the relation between architecture, planning, everyday politics and everyday life...[not through] an architectural language, but in a quantitative approach."³³ The claim was that the valorisation of quantity enabled MVRDV to utilise data as a form of language, one which could transform social practice into design parameters. Through the applications of algorithms and mathematical diagrams, form could be directly derived from the quantification of society, and in particular from the financial, economic and legal parameters attendant to any and all design tasks. The idea was that the design process would produce an architecture that was in tune with collective priorities, connected to the urban fabric and liberated from the need to be an individualistic, unique formal object.

Datascares certainly produced dramatic buildings well-suited for the media, and the idea quickly drew attention from among the disciples of the spectacle. The idea that information could be quantified spread rapidly among a new wave

of designers who bound their parametric inputs to ever more refined and increasingly digitalized algorithmic functions. Zaha Hadid's architectural partner Patrik Schumacher promulgated parametricism as a new style, in which the deformation of previously understood spatial orders was valorised as "the *lawful* inscription of information" that would produce a "lawfully" differentiated urban "field".³⁴ Working together in practice, Schumacher and Hadid disseminated this "style" to all corners of the world.

The question quickly arose as to whether the algorithmically manipulated quantification of social practice delivered projects befitting to Datascape's original goals. The process certainly did generate new and often interesting forms, although much of what was produced quickly became – as Schumacher openly propagated – a new style that could be efficiently and effectively appropriated by both corporate and (in an especially proficient manner) authoritarian capital. But this was not only an issue of association; it was also a problem of content. While it may somehow be possible to effectively quantify social practice – Lootsma went so far as to claim that collective emotions could be measured³⁵ – is it not just more satisfying but also more useful to regard the intricacies of social relations as something intrinsically qualitative in their nature?

The inherent problem here resides in the issue of meaning. Consider how *Heimlich Manœuvres* argued that meaning is embedded in the interaction of social space and the performative activities that it accommodates. These meanings are the foundation of the social relations that underlay the fabric of the city. How can the complex significance of these activities – the everyday rituals of life – be quantified? In what ways could their meanings become truly different, solely because they are larger or smaller, faster or slower? The idea of social facts extends the question of meaning to the other homological manifestations of social practice that constitute the urban assemblage. The legal, economic and hygienic parameters that collaborate in the production of space may (at times!) be expressed in quantities, but do these quantitative values truly represent the full, intrinsic significance of the social relation that they give expression to? To put it simply: *all parametric data is derived from social facts, but not every social fact can be quantified in data*. It is therefore imperative for critical academics and practitioners to ask: why would we heedlessly delegate responsibility for the design and production of our cities to data, to algorithms, to quantifications?

The conceptual integration of performative rituals, non-referential meaning embodied in social space and a matrix of qualitatively grounded social facts sets out a coherent framework for analysing and judging these urgent questions. Although Kari was fascinated by issues of design process, this framework did not propose a method for design. Instead, it was a methodology for analysing and interpreting a problem, as well as for assigning value and meaning to the strategies for, and results of, its solution. In this way, it presented architects and critics with an intellectual construct that could empower them to, for example, contest the claims of the parametricists and resist the enticements of quantification. By doing so, it

reaffirmed the role of the designer as an informed, enabled and purposeful actor capable of controlling the design process – and thereby reinvested architects with responsibility, both for their decisions within the design process and for the forms and spaces that it produced. Above all, it proposed a way of approaching design that privileged the non-representational, performative meanings that pervade the spaces of everyday life. What was relevant was not *how* designers produced a particular form, but *why* they might choose to produce it.

OK. But what does this have to do with building in Vienna today?

These may be compelling arguments, but they are very speculative and theoretical. What might these ideas really have to do with everyday practice? And why do I feel it necessary to explain them in such detail? Because the issues central to this discourse became very germane by the end of the 2000s as a series of developments fundamentally transformed the environment for architecture and urban planning in Vienna. What were these events, and how did they affect the urban discourse? And why do I believe that these theoretical arguments offered useful insights for the problems that architects have faced in the last decade?

First off, the financial crisis of 2008-2009, coupled with the emergence of the digital gig economy, dramatically changed the investment landscape of the city. The market for offices, retail and shopping centres largely collapsed. Public funding for culture and leisure became increasingly tight, and prospects for projects in the culture sector dried up. Housing and social infrastructure increasingly assumed the lion's share of planning and building activity in the expanding city. As a result, the type of buildings amenable to spectacular, medially marketable architecture were largely off the agenda. What was now on the menu was the planning of spatially dense and programmatically complex built fabric – primarily housing – for the city. This required different affinities and sensibilities, especially because the city had outgrown the previous limits of its built-up area. Newly laid out, multifunctional urban districts were being connected to the peripheries and inserted into interstices of the city. The increased built density and programmatic intensity of these new projects demanded a more sophisticated and adept integration of social, administrative and infrastructural issues in their planning.

Yet, while subsidized social housing began to deliver an increasingly important contribution to the development of the city, the rules that governed it were significantly altered. By 2009, Prix had ended his term on the *Grundstücksbeirat*. Whatever opinion one might have of Coop Himmelb[au]'s architecture, one must appreciate how Prix helped elevate architectural quality in Viennese social housing. His influence, in a phase during which the Developer Competition established itself as a crucial institution in Vienna, strongly cemented the importance of high-level architecture by the awarding of funding for subsidized housing. However, buffeted by economic and social developments, the emphasis started to shift. In 2009 Michael Ludwig, then Commissioner for Housing (and Mayor

since 2018), introduced the principle of social sustainability into the competition process. This valorised everyday community activities and interactions in public housing. In practice, it integrated new actors, such as urban sociologists, social institutions and charitable organisations, into the planning process. Cooperative urban design processes were introduced into the procedures for city planning, and the design of housing and the production of the city became an increasingly multi-layered, interdisciplinary and decentralised practice. The architecture still had to be intelligent, innovative and distinctive, but the design process now demanded a nuanced and networked approach to the making of social space.

On top of this, through the strange conjunction of the financial crisis with the successful renewal of 19th century housing, Vienna depleted its stock of low-cost, open market housing, precisely in the moment when both private and public coffers were overstrained. This impelled Ludwig to introduce the SMART-Housing program in 2013, which required that social housing include a large proportion of lower-priced, compactly sized units. Accommodating this new prerequisite tightly constrained project budgets. Winning competition designs still needed to be innovative, but they had also to be exceptionally disciplined, spatially efficient and economic. Much creative energy went into creating innovative yet optimised floor plans; at the same time, the spatial quality of the collective, community-sustaining spaces in the house, on the estate and for the neighbourhood also assumed great importance. The goals were lofty, but money tight. Construction had to be exact and well thought out – money saved on the building shell might be applied to the finishes. The detailing was, by necessity, inventive yet economical, and the use of materials precise and spare.

At the same time, many of the city's deep-seated, constitutive social structures began to evolve and to be transformed. This affected such elementary practices as the family and household, play and recreation, work and leisure. Families became generally smaller and often more fragmented; the composition of households have adjusted and have become more heterogenous. The care of children, as well as where they played and when they came home changed. There were disruptions in how, where and when people worked. The changes that all this provoked were sometimes subtle, but they often represented dramatic revisions to the daily rituals that populate the spaces of the city. Innovative planning for this newly emergent social reality demanded new analytical and socio-conceptive skills. These emphasized a more complex understanding of how space is actively appropriated and how this appropriation affects the social value of the space.

In sum, these emerging professional demands practically amounted to a new job description for planning in the city. This re-orientation of the discipline provided a very welcome opportunity for a growing number of critical architects who, during the late 2000s, grew increasingly interested in the social principles which underlay the production of urban space. This is the generation defining new directions today. What characterises the work of such offices as feld72, Studio Vlay/Streeruwitz, ppag or einszueins is a qualified rejection of the primacy

of form in favour of an increased emphasis on program and social process. This may have paralleled Dutch developments, yet the line of attack and the aura of the work is distinctive and different. It is less quantitative and certainly less flip-pantly sensational; it is more concerned with the micro-processes of space than the macro-processes of composition. The activeness of space, the power of everyday social rituals and the evolving practices of community strongly influence what these practices build. The best architecture being produced in Vienna is formally diverse, but, when it hits its stride, its unassuming beauty seems always to grow out of a compelling internal logic.

It doesn't appear that these architects share a common methodology for making form. The impression is more that they possess a mutual affinity for using the simple, sharply observed content of life as inspiration for designing space. To use a bluntly culinary metaphor, they are using different formal recipes to combine a common set of locally sourced, conceptual ingredients.

Coda: An impassioned, and not always quiet, contribution

I believe that Kari Jormakka deserves much credit for the emergence of the conceptual structures behind much of Vienna's contemporary architecture. Through his writings, his lectures and his presence at Vienna University of Technology, Kari Jormakka's theoretical groundwork deeply infiltrated the scene and decisively shaped the discourse that stimulates the most interesting actors today: the fluency with which these practitioners understand the role of performative meaning in the production of social space; the use of typology as an elastic and pragmatic tool, not as a dogmatic cultural relic; the ability to understand the nature of a diagram and their ability to use as a tool for fluidly integrating meaning and form; their awakened and knowledgeable usage of information as qualitative social facts, rather than quantitative algorithmic fodder. All of this is much indebted to his intellectual efforts, especially to the ideas he presented in *Heimlich Manœuvres*, later to be further expanded and refined. This is not to claim that today's actors consciously recall Kari's example of the Greek *agorein* as the integration of act and space in the systematic debate of communal affairs; that would be fatuous.³⁶ But his work contributed mightily to the ground tenor of the time, which many consciously – or unconsciously – absorbed.

Through his writings, his teaching, and his mentorship, Kari Jormakka challenged a generation of Viennese architects to critically reflect upon what methodology is. He motivated them to more deeply contemplate the qualities and effects of the spaces they designed, and to be sensitive to the subtle, yet essential social meanings inherent in city they were building. Above all, he clarified what the role of logic, concept and method should play in the process of design: theory is there to inform our actions, not to dictate them.

A theory is not what you build.

It is what helps us understand why we build what we do.

Notes

1. A.o. Univ Prof Dr Wolfgang Blaas & Univ Ass Dr Robert Wieser, *Wohnwirtschaftliche und volkswirtschaftliche Probleme durch Kürzung der Wohnbauförderung / Studie des IFIP Institut für Finanzwissenschaften und Infrastrukturpolitik der TU Wien*. Wien: Kammer für Arbeiter und Angestellte für Wien, 2004, 33.
2. For a discussion of this school of thought see: Martin Steinmann, "The Presence of Things: Comments on Recent Architecture in Northern Switzerland," and Wilfried Wang, "Instances of Factual Architecture," in Mark Gilbert & Kevin Alter, *Construction, Intention, Detail: Five Projects from Five Swiss Architects*. Zürich: Artemis Verlag, 1994, 8-31.
3. The careful reading of the curriculum vitae of the leading architects in this generation quickly reveals the extent in which they were intertwined with both Aldo Rossi and Dolf Schnebli during the formative years of their careers.
4. Vedran Mimica, "The Berlage Experience," in Jennifer Sigler and Roemer Van Toorn (eds.), *hunch*, No. 6/7. Rotterdam: The Berlage Institute, 2004, 51
5. Rem Koolhaas, "Bigness and the Problem of Large," in Rem Koolhaas and Bruce Mau, *S,M,L,XL*. New York: Monacelli Press, 1995, 512.
6. Bart Lootsma, "What is to be Done," in Véronique Patteeuw (ed.), *Reading MVRDV*. Rotterdam: NAI Publishers, 2003, 24-65.
7. Kari Jormakka was at the Knowlton School of Architecture at OSU, Columbus, Ohio, in 1989-1995, which was the period in which Peter Eisenman completed the Wexner Center for the Arts in the same city, and Jeffrey Kipnis, a theoretician well known for his affinity for Eisenman and Coop Himmelb(l)au as well as his collaborations with Greg Lynn, ascended to a full professorship at the school: https://knowlton.osu.edu/sites/default/files/cv/jkipnis_cv.pdf (accessed 24.11.2019).
8. Kari Jormakka, with Dörte Kuhlmann & Oliver Schürer, *Basics: Design Methods*. Basel: Birkhäuser, 2007.
9. Kari Jormakka, *Heimlich Manœuvres: Ritual in Architectural Form*. Weimar: Verso, 1995, 6.
10. Jormakka, *ibid.*, 3.
11. Jormakka, *ibid.*, 4.
12. Jormakka, *ibid.*, 4-5.
13. Jormakka, *ibid.*, 5-6.
14. Although Henri Lefebvre does get somewhat more concrete in *The Production of Space* in the section titled "Spatial Architectonics", in which he touches upon the body in space, gestures, doors and thresholds as well as monuments, his handling of the practical workings of space always remain abstract, subordinated to the political program. Henri Lefebvre, *The Production of Space*. Trans. David Nicholson-Smith. Oxford: Basil Blackwell, 1991, 169-228. David Harvey stated as much in his afterword to the English translation: "The book is, therefore, also an opening towards new possibilities of thought and action. Although the culmination of a lifetime of engagement, *The Production of Space* takes the form of a preliminary enquiry which contains much that is explosive, much that has the capacity to 'detonate' (a word he himself frequently choses) a situation that threatens to become fixed, frozen and ossified. It is, above all, an intensely political document." Lefebvre, *ibid.*, 431.
15. Quatremère de Quincy, "Type", in *Encyclopedie Methodique, Vol. 3*. Trans. Samir Younés, reprinted in *The True, The Fictive and the Real: The Historical Dictionary of Architecture of Quatremère de Quincy*. London: Andreas Papadakis Publisher, 2000. For a very short synopsis of the argument see: Christopher C.M. Lee, *The City as a Project* [Type: August 16, 2011. <http://thecityasaproject.org/2011/08/type/> (accessed 24.11.2019).
16. Jormakka, Kuhlmann & Schürer, *Basics: Design Methods*.
17. "Types are not in themselves classifications of formal or functional constants, but rather constants that convey meaning or are perceived through experience to do so. In this construct, buildings are understood within the terms delineated by those art-historical or social disciplines that address the prior meanings embodied in entities ... nobody would perceive a building as being meaningful unless it can be placed in a significant context, such as, for example, being situated in relation to some sort of precedent. This is an imperative condition, for interpretations are based upon typologies ... yet, in contrast to artistic creation in music and literature, types are described as universal constants, which are not invented (or, at least not ascribed to an individual), but rather, are discovered or revealed. Most proponents of this doctrine, including the early Aldo Rossi, share this point of view. As types are universals and thereby preconditions for identification and interpretation, they cannot constitute in themselves any artistic meaning or value. Thus, the creative act lies in the process of specifying those aspects which are not contained within a type, as well as in the divergence from, or modification of the type, in as much as this can in anyway be received and comprehended. Seen this way, the architect is more the interpreter of a musical composition than the composer. Typological theory relegates architectural creativity to a realm that many theories regard to be of

- secondary significance: detail or ornament." Kari Jormakka, *Geschichte der Architekturtheorie*. Wien: Edition Selene, 167-168. Translation by the author.
18. Aldo Rossi, *The Architecture of the City*. Trans. Diane Ghirardo and Joan Ockman. Cambridge, MA: Oppositions Books/MIT Press, 1982, 130-131.
19. Rossi, *ibid.*, 24. Rossi's classifications of the city's artefacts belie the essence of his theoretical project. Rossi divided the artefact city/the city of artefacts into two realms or categories of works: housing and monuments. Housing is the fabric of the city, the private realm of domesticity and work. Here society – the individual lives the quotidian culture of the city – is produced and reproduced. Monuments are in the public realm, where the individuals of the city meet and experience themselves as the collective. Monuments express the history, the mythology and the collective memory of the city – where the city has come from, what it is striving to be. This dichotomy is essential, for the processes for the production and dissemination of meaning are intrinsically different for each realm. Rossi rather openly admits that monuments are of special importance to him, and this preference sets the tone for the project.
20. Peter Eisenman: "The Houses of Memory: The Texts of Analogy", in Rossi, *ibid.*, 7.
21. Taken from an interesting, yet revealing, mash-up of Aldo Rossi words: "[Type] developed according to both needs and aspirations to beauty; a particular type was associated with a form and a way of life, although its specific shape varied widely from society to society. [...] I would define the concept of "type" as something that is permanent and complex, a logical principle that is prior to form and that constitutes it... In fact, it can be said that this principle is a constant... I tend to believe that housing types have not changed from antiquity up to today, but this is not to say that ways of living have not changed, or that new ways of living are not possible." See Nelson Mota, "The Timelessness of Form: An Apocryphal Interview with Aldo Rossi and Christopher Alexander", in Elena Chiavi, Pablo Garrido Arnaiz, Matilde Girão, Francisco Moura Veiga, Francisco Ramos Ordóñez, Brittany Utting & Rubén Valdez (eds.) *CARTHA - On the Form of Form*, Basel: Park Books, 2016 (e-book), 2019 (print edition), 2/04.
22. Kari Jormakka, "The Diagram Debate", in Österreichische Gesellschaft für Architektur & Institut für Architekturwissenschaften, Abteilung für Architekturtheorie, TU Wien (eds.), *Diagrams, Types, Algorithms* [Special issue]. *UmBau* 19, Edition selene: Wien, 2002, 52-53.
23. Giorgio Grassi, *Questions of Architectural Design*. Rome: Divisare, 2018. The original German language text appeared as: "Befreite, nicht gesuchte Form. Zum Problem architektonischen Entwerfens", in *Diadalos*, no. 7, 1983.
24. Jormakka, "The Diagram Debate".
25. Jormakka, *Geschichte der Architekturtheorie*, 238. Originally in Paloma Poveda (ed.), Herzog & de Meuron [Special issue]. *El Croquis*, vol. 84, II, 1997, 11ff. Translation by the author.
26. Jane Jacobs, *The Death and Life of Great American Cities*. New York: Vintage Books, 1961, 432. Jacobs goes on to say: "All these are certainly complex problems. But they are *not* problems of disorganized complexity, to which statistical methods hold the key. They are all problems which involve dealing simultaneously with a sizeable number of factors which are interrelated into an organic whole." (emphasis by the author)
27. For an overview of Rossi-Landi's ideas on this subject see: Augusto Ponzio: "The Role of Language and Ideology in Social Reproduction According to Rossi-Landi", trans. Susan Petrilli, in *TRANS*, Nr. 16: Innovations and Reproductions in Cultures and Societies. Wien: INST-Verlag: http://www.inst.at/trans/bio/trans/16Nr/01_2/ponzio16.htm; <https://marxismocritico.files.wordpress.com/2012/10/the-role-of-language-in-social-reproduction-according-to-rossi-landi.pdf> (accessed 14.10.2019).
28. See Mark Gilbert, "Systems of Identity: On the Complex Patterns of Social Space", in *Skriptum zur House Rules*. Wien: Institute for Architecture Theory, TU Wien; Lehrveranstaltung 259.288. For a further example see Mark Gilbert, "The Elusive Meaning of Form", in Walter Bohatsch (ed.), *Continuously*. Salzburg: Anton Pustet Verlag.
29. Ludwig Wittgenstein, *Tractatus Logico-Philosophicus*. London: Routledge & Kegan Paul, 1922 (Eighth impression, 1960); 4.014-4.0141.
30. Wittgenstein, *ibid.*, 1.13.
31. Wittgenstein, *ibid.*, 1.1.
32. See, for example, Mark Gilbert, "On Beyond Koolhaas: Identity, Sameness and the Crisis of City Planning", in Österreichische Gesellschaft für Architektur & Institut für Architekturwissenschaften, Abteilung für Architekturtheorie, TU Wien (eds.), *Architektur und Gesellschaft* [Special issue], *UmBau* 20. Wien: Edition Selene, 2003, 114-128.
33. Bart Lootsma, "What is to be Done", in Patteeuw (ed.), *Reading MVRDV*, 35.
34. Patrik Schumacher, "Parametricism as Style – Parametricist Manifesto", London, 2008: <http://www.patrik-schumacher.co/Parametricism%20as%20Style.htm> (accessed 14.10.2019). Italics by the author.

35. Bart Lootsma, "What is to be Done", in Patteeuw (ed.), *Reading MVRDV*, 37. It is worth noting that Reinier de Graaf of OMA is still talking about measuring emotions, although he is somewhat sceptical about its positive utility. Reinier de Graaf, "In the age of big data, everything is measurable, even happiness", *Dezeen*, 3.10.2019: <https://www.dezeen.com/2019/10/03/happiness-architecture-reinier-de-graaf/> (accessed 14.10.2019).
36. Jormakka, *Heimlich Manœuvres*, 171-177.

A theory is not what you build: Reference projects

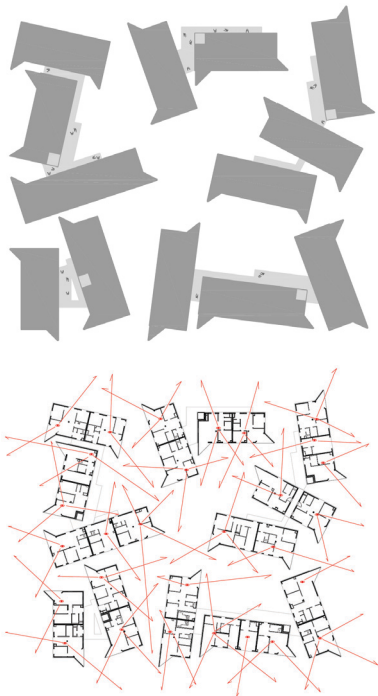
Since the crisis years of 2008-2009, architectural production in Vienna has been taken in new directions. One of the most important of these involves a deeper degree of humanism and social consciousness. These architects engage in cooperative planning practices at the urban planning level, and often in their architecture as well. Many of the most interesting practitioners have been influenced by emerging theoretical debates which valorize the creation of architectural meaning through programming and use, rather than through formal gestures or typological references. The need to create powerful and memorable form has not been ignored. It is simply that the motivations and methodologies that underlie formal creation take critical and analytical reference of the social practices of the buildings' occupants, as well as those of those city inhabitants who come in daily contact with the buildings.

einszueins architekten – Wohnprojekt Wien, Nordbahnhofareal, Vienna, 2013



Built for a *Baugruppe*, which is a self-organised tenant collective, the loft-like, open floor plan is designed to be individually partitioned in order to precisely fit the needs of each tenant-owner. The irregular pattern of the balconies reflects how the individualized apartments produce different floor plans for each story, and the incision brings natural light into the circulation zones. Photo: Kurt Hoerbst.

PPAG architects – SLIMCITY Aspern, Vienna, 2015



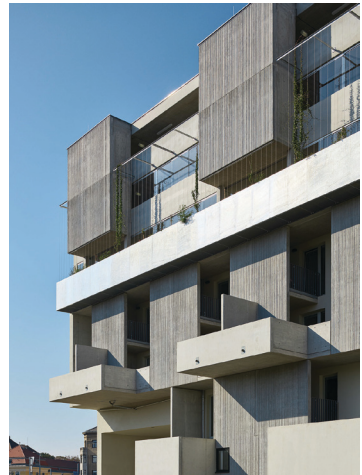
The perimeter block is reconceived as a cluster of self-similar, free-standing buildings, which creates a series of village-like spaces within the block interior. The organizing principles behind the cluster insure at least one open view axis for each unit; the form of the loggias accentuates this view while insuring privacy towards the neighbours. Photos Wolfgang Thaler.

SUPERBLOCK – Grüne Welle (Green Wave), Vienna, 2014



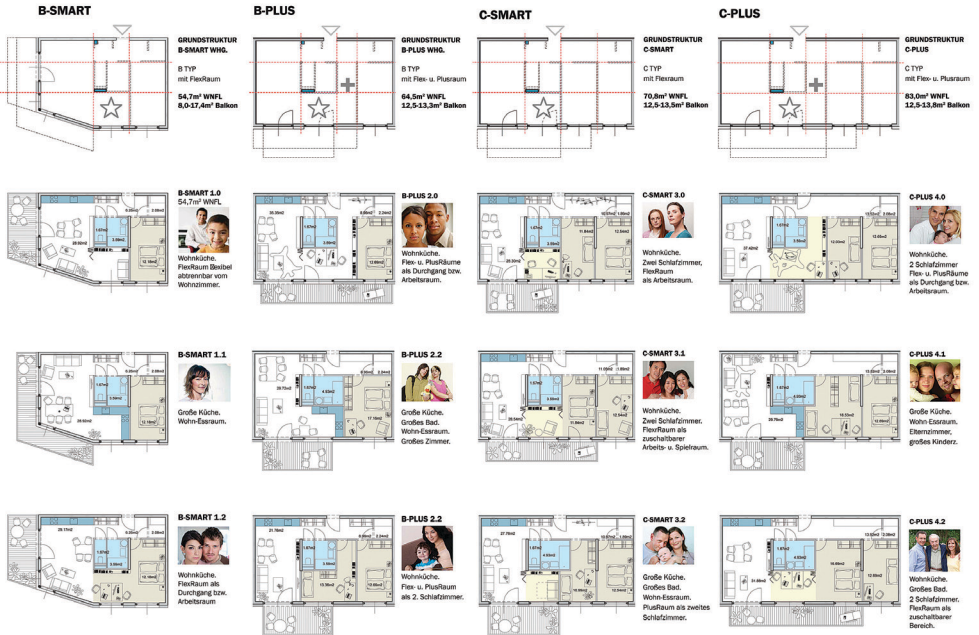
Gabled roofs generate a finely scaled proportion while accentuating the street front character of the central space and making it a multifunctional place for residents to gather. The project acts as a transition between a high density, new-built estate and existing low-density housing. The row house typology harmonizes with the neighbours, yet it is dramatically denser and more site-efficient than the existing buildings. Photo: Hertha Hurnaus

StudioVlayStreeruwitz – Entdeckung von Florasdorf, Vienna, 2018



Through its precise perforation and orientation of its fenestration, a concrete wall overlooking an urban freeway becomes comfortably habitable. Vertical trellises provide a groundwork for climbing greenery; these will both engage the tenants and soften the environment. The double orientation of each apartment produces peaceful bedrooms on the protected side of the building. Photos: Bruno Klomfar

trans_city architektur – smart+plus wohnen, Vienna, 2016



The basic building blocks are a series of open cell living units. The only fixed element in the floor plan is the sanitary shaft; inside the boundary of the cell, the apartments can be individually configured according to the tenants desires. The basic building volume is very simple, but the articulation of the two balcony types available for each apartment lends the building volumes a sculptural rhythm. Photo: Hertha Hurnaus.

feld72 – Das Haus am Park, Vienna, 2017



An atrium cuts through this multifunctional building on Helmut-Zilk-Park, tying together a complex program of offices, dance studios, student housing and apartments. The differing programming of the stories is the foundation of the architectural composition, and the meander of the atrium expresses itself in the facade.. Photos: Hertha Hurnaus.



This project offers both “software” and “hardware” solutions for helping different generations live together on one estate. Two separate, subsidized apartments are rented simultaneously on two related or befriended inter-generational households, ensuring that they will neither live too near each other, nor too far away for mutual support. The architecture provides apartments and ground-floor programming for the different age groups, supporting interaction among all households. Photos: Hertha Hurnaus, Leonhard Hilzensauer.

AN INTERVIEW WITH FELD72

Ebru Simsek-Lenk

The work of feld72 pivots on the interface of architecture, applied urbanism and art. The studio was founded in 2002 by Anne Catherine Fleith, Michael Obrist, Mario Paintner, Richard Scheich and Peter Zoderer and is based in Vienna. feld72 has implemented numerous projects of various scales in the national and international context, including master plans, buildings, studies on urban development, interior and exhibition design, urban strategies and large-scale interventions in the urban environment. The award-winning works are remarkable for a socially responsible, innovative and sustainable approach to architecture and urbanism. In the interview Ebru Simsek-Lenk spoke with Michael Obrist.

... there is no break between the theoretical and experimental projects of feld72 and their designs for buildings: all of their work, irrespective of scale or means, investigates how the world is engaged and perceived through the lens of architecture. And there is an architectural lesson we can draw from this work, namely that the essence of architecture is nothing architectural. (Kari Jormakka)

Ebru: Kari Jormakka wrote about your works in the book "Urbanism for Sale" (2008)¹ edited by Lilli Hollein. How did that come about?

Michael: In 2007, Lilli Hollein was the curator of the Austrian Pavilion at the 7th international Biennial for architecture of Sao Paulo in Brazil. Since it was about public space, Lilli Hollein invited us only as a representative of Austria to make use of the very large space in the Pavilhão Ciccillo Matarazzo, designed by Oscar Niemeyer and Hélio Uchôa, in the Parque do Ibirapuera in Sao Paulo. We invited people who seemed interesting to us, who had influenced us and asked them to reflect on our work.

Ebru: Why is architectural theory of interest for you?

Michael: You cannot avoid thinking when designing. Thinking can help you to formulate and think designs more radically, or even more clearly and concisely.



feld72, Million Donkey Hotel, Prata Sannita, Italy, 2005.



It is necessary to understand that architecture is a language that is culturally anchored and that architecture also has a history. If people lose their language, the architecture they develop would still refer to other architecture. People communicate. You cannot *not* communicate in architecture either.

Ebru: How should architectural theory be integrated within the university? You teach yourself. How was it with you? How did you experience that?

Michael: When I studied, there was a huge vacuum, until we had the Institute of Architectural Theory. Personally, I think it was very frustrating at that time to study at the Vienna University of Technology because, on the one hand, we had experts with profound knowledge of history of architecture, but the beginning of modernism was still the only thing we had thought of. Theoretically it was – in my opinion – unfortunately a desert.

Ebru: How do you see Kari Jormakka's work in the field of various theoretical discourses? What did he contribute? He was also a very versatile teacher.

Michael: Absolutely, I studied under the Erasmus exchange system for a year in Portsmouth in England. The university there is small and theoretical. When I came back, I was told that there had recently started a professor of architectural theory at the Vienna University of Technology. I then read a book of his and had no idea how old this famous Kari Jormakka was. I read the short biography on the back cover and thought he must be a 65-year-old man who had taught in Chicago and then in Weimar. So I marched off to the first lecture of Kari Jormakka, and there was this young guy, whom I would have at most classified as assistant. He stood there in his Taliesin T-shirt and I was still waiting for the older professor, the well-distinguished gentleman to arrive. At some point the “assistant” started to talk – and it was such a brilliant speech about the “relationship between the idea of the blind man in Greek mythology, the “seer”, and the “Greek architecture” that I said to myself: Wow, what a brilliant assistant. But then I quickly realized that was Kari Jormakka himself. I found that very impressive. Then, I attended his seminars and lectures. They were very inspiring. At the same time, he was a juggler, someone who built systems first and then destroyed them. In my view, he was not advocating “the one theory”, but rather he was the one who fully grasped theories and used the various theoretical approaches as a tool.

For me he was not an apologist for a certain theory, but the opposite. What I found interesting about him was how he destroyed – with wit and verve – intellectual systems that also had power. And presented that not dogmatically as a guide, but as what it was – an intellectual system.

Ebru: I found that particularly strong in his ethics lecture. He picked up certain topics, such as participation, self-determination, or decision-making. In fact, these subjects

have been around since the 1970s and are being reissued over and over again. He gave the students ways and tools to critically question these in order to better position themselves later in life.

Michael: I have extremely appreciated Kari Jormakka for having taken up subjects like balls, which he passed at a new pace elsewhere, with an optimistic, very human approach to the students. I found his personal approach very nice.

Ebru: Kari Jormakka has also pursued classical architectural theory with his book Geschichte der Architekturtheorie [History of Architectural Theory]. It was important to him, he taught it, but of course that was less applied, much less practical. I find the practical part he has taught me to be enormously important, and that's not the case with other architectural theorists. It can also be implemented in practice.

Michael: The question is: what can architecture do? It is not the question of what it symbolically represents, it is less semiotic, but: what can it do and what does it produce? The social is thus actually before the spatial.

Ebru: Kari Jormakka was not only theoretician, he was also an architect. As such, he was also very practical oriented. All the media of architecture were important to him, not just the text. He emphasized that students also design on the computer, model three-dimensionally, and make visualizations and animations. He has motivated me to express myself in my diploma thesis in many different media: drawing, image, text and animation. For this I have also received recognition: the fact that my diploma thesis had a theoretical framework was honoured with the ARCH+ prize. Ultimately, thanks to the concept, the modelling skills and the animation, I was able to work for internationally renowned architects such as Zaha Hadid and Wolf Prix. Kari Jormakka's challenging demands have met the high requirements of an international level.

Michael: I thought the beauty of Kari Jormakka was that he was a door opener. He showed that there are many different doors, and then he also opened them and you entered and he showed that there are many more doors. But you had to decide – and that's the interesting thing – which door you go through. He did not take the decision from you and that was also the difficult thing: this emancipation, you just had to learn to go through this door on your own. This reminds me at this point of the beautiful sentence of Heinz von Förster in his cybernetics: “We can only decide *these* questions that are in principle undecidable ... We have a choice of who we want to be when we have decided on fundamentally undecidable questions.”

Ebru: Finally, I would like to ask you for some short spontaneous statements: What interested you in Kari Jormakka?



feld72, Kindergarten Niederolang, Olang, Italy, 2016.



Michael: Openness and thinking without limits.

Ebru: What was your relationship with Kari Jormakka?

Michael: My professor, mutual personal appreciation.

Ebru: What interested you in Jormakka's work?

Michael: There was a Harvard review of a work by him that expressed exactly what I felt: "Jormakka's theory starts where others already stop."

Ebru: And the influence of Kari Jormakka on your own work?

Michael: Conceptual sharpness.

Ebru: The influence of architectural theory in general on your own work?

Michael: Theory is a breeding ground from which projects can grow.

Ebru: What was Kari Jormakka's influence on architectural theory?

Michael: Demystification and mystification.

Ebru: What does internationality mean to you?

Michael: Cultural exchange and surprise.

Ebru: What do you think about Kari Jormakka and internationality?

Michael: In many cities where I was and where I could talk with actors "discursively", the name Kari Jormakka would fall into the conversation.

Ebru: What do you think about Kari Jormakka and Vienna?

Michael: Good that he was there.

Notes

* Interview translated from German by Ebru Simsek-Lenk.

1. Kari Jormakka, "Theory and Design in the Fourth Machine Age", in Lilli Hollein (Ed.), *feld 72: Urbanism – For Sale. Austrian Contribution to the 7th International Biennial for Architecture São Paulo*. Wien /New York: Springer, 2008, 14-17.

AN INTERVIEW WITH DMAA

Ebru Simsek-Lenk

The Vienna architectural office Delugan Meissl Associated Architects / DMAA was founded jointly by Elke Delugan-Meissl and Roman Delugan in 1993. In 2004 the office expanded to form Delugan Meissl Associated Architects with the addition of the partners Dietmar Feistel and Martin Josst. 2012 saw the foundation of DMID, Delugan Meissl Industrial Design. The office works around the globe and its repertoire ranges from spectacular cultural institutions and innovative residential and office buildings to exhibitions, furniture and product design. In the interview, Ebru Simsek-Lenk spoke with Elke Delugan-Meissl and Dietmar Feistel.

Ebru: Why is architectural theory relevant today for practicing architects?

Dietmar: Our focus is certainly on the realization of buildings. Architectural theory is a discipline that helps us to analyse and reflect our work. We also see theory as essentially related to the interdisciplinary debate of the built.

Ebru: How was this in your own education? Where did you study and did you choose architectural theory as your own subject?

Elke: During my architectural studies in Innsbruck, architectural theory was not a relevant factor in education – a fact that I have often regretted. I learned important correlations and the resulting insights step-by-step after my studies. I think that the way Kari Jormakka led his institute by inviting architects to be part of the lecture on contemporary architecture was exemplary. It's essential to link theory with the realization of contemporary architecture. Kari always pursued this approach, and alongside his scientific activities, it was one of his great qualities. He mastered this balancing act between theory and practice brilliantly.

Ebru: When I studied at Vienna University of Technology in the 1990s, there was no Institute for Architectural Theory. It did not exist until the end of the 1990s with Kari. I finished with him, but my work was not purely theoretical. It consisted of a practical part – design – and a theoretical part. Some students only work in a theoretical way.

Dietmar: I find the combination of the design work within a theoretical framework exciting. It should always be the sound knowledge to form the basis, so that



DMAA, House Ray 1, Vienna, Austria, 2003.



you can then move in a variety of disciplines at a high level.

Ebru: Now if we come back to Kari Jormakka, how did you see him in this field of theoretical positions?

Elke: I had the opportunity to work with Kari for a few years in the Salzburg design advisory committee. I was fascinated by the precision, quality, vision and serenity he had set for this task. In addition to technical discussions, we often had the opportunity to discuss during the return journey from Salzburg to Vienna. It was always surprising what different topics and positions Kari confronted me with. I recall a discussion about intrusive orgies of lighting in cities and how they change these urban spaces. Kari has seen this change very critically.

Ebru: So you first met him on the Salzburg design committee?

Elke: No, when we had completed House Ray 1 (2003), Kari and Dörte Kuhlmann asked us for an interview on site. That was the first contact, then came Salzburg, and at the same time we asked him if he would join us in formulating our architectural approaches and positions. We had some intense exchanges at these meetings. Kari has created a theoretical foundation, a strong position and texts that are still of high relevance.

Dietmar: And that with a certain pragmatism. He was not caught up in the scientific context at all, on the contrary: he was very open, with a good sense of architecture. One always felt that he was also a trained architect.

Ebru: An important point! Architects have a different approach...

Elke: He was very open-minded and yet very focused.

Ebru: Do you remember something surprising or something that you did not expect?

Dietmar: The notion of “sublimity” that Kari brought to our discussion was, for me, a taboo, based on my political stance. Since Richard Wagner and Friedrich Nietzsche, the term has had negative connotations for me. However, Kari has brought us closer to the “sublime” in the context of aesthetic theories.

Elke: Kari’s modification of Nietzsche’s statement,¹ that aesthetics is applied physiology, namely “architecture is nothing other than applied physiology”, was our guiding principle for many years. The examination of physiological experience is a central motif in our design work. How spaces change and act on their users – emotionally and physically.

Ebru: And is that reflected in your own work? When I did my diploma, I did a design project and Kari recommended literature to me. This helped me to get further in the design process.

Dietmar: He had the ability to motivate, as they have good coaches, too. We always had the feeling that he was having fun in our discussions.

Elke: Yes, he also challenged us.

Ebru: So it was more of a dialogue that developed, and not a service?

Dietmar: It was anything but a service – it was a productive discussion. And as such he certainly saw that it that way, too. A different approach would certainly not have interested him – it would also have not led to any cooperation with Kari.

Elke: Basically, even with a highly qualified counterpart, in an intensive collaboration, the chemistry must be right – Kari was an incredibly pleasant, critical contemporary.

Ebru: Now I'd like to ask you for short spontaneous statements: What interested you about Kari Jormakka?

Elke: His personality.

Ebru: What was your relationship with Kari Jormakka?

Elke: Our relationship was professional, yet friendly.

Ebru: What interested you in Kari Jormakkas work?

Elke: Its complexity.

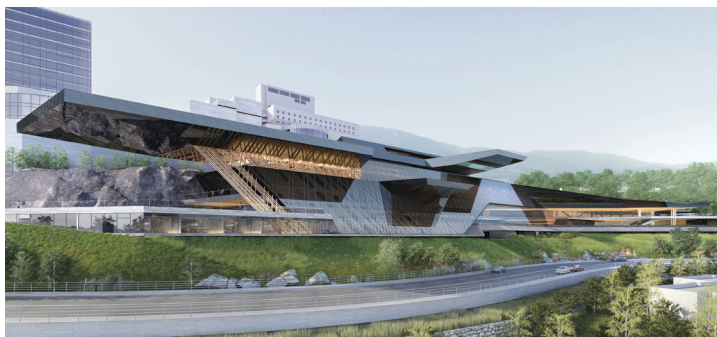
Ebru: The influence of Kari Jormakka's work on your own work?

Dietmar: He gave a name to our work.

Elke: I believe that the ability to verbalize our architectural approaches gave them a theoretical framework in a way.

Ebru: And the influence of architectural theory in general on your own work?

Elke: Again and again, it's very refreshing to deal with trends and perspectives. The theory has repeatedly provided the impetus to reflect on our work.



^ DMAA, Resort Brac, Croatia, 2017.
DMAA, Walkerhill Spa and Resort, Seoul, South Korea, 2016.



^ DMAA, Staatstheater Karlsruhe, Germany, 2015.
DMAA, Casa Invisible, mobile building, 2013.

Ebru: Kari Jormakka and Vienna?

Dietmar: I was already fascinated by the fact that he did not work in his native language. I wonder how that worked, because language was his real tool.

Ebru: Kari Jormakka and internationality?

Elke: Wherever he was, his laptop was with him – he worked at every opportunity. After hours with the design committee, he still found the strength to formulate his scientific texts. I got tired on the train, and picked up a newspaper. Kari would research, write and concentrate on work.

Ebru: And this international, cosmopolitan aspect is it important for architecture? Wolf Prix is the most famous Austrian architect internationally. In addition, your office is internationally known. Unfortunately, architects are often pigeonholed. Is the myth true that famous architects who work a lot abroad do not build in their own country? ...Maybe because the Building Types are different?

Dietmar: I believe we have managed to maintain a balance between internationality and locality, between large and small projects, between housing and cultural buildings.

Ebru: Maybe it's a question of generation, that architects like Zaha Hadid and Wolf Prix fit into this star architect category?

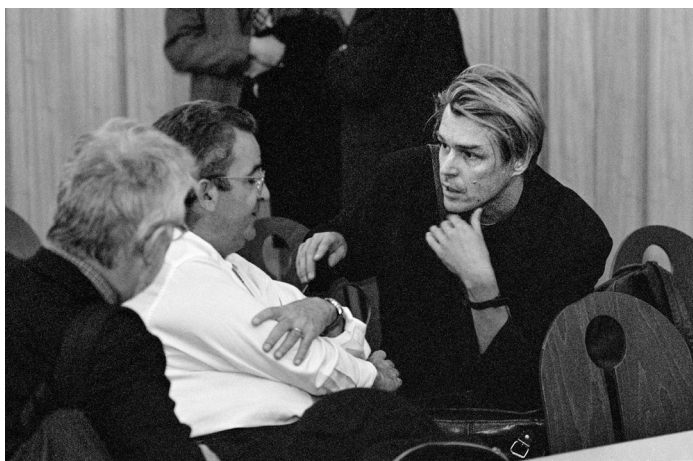
Dietmar: For me, these categories are not relevant. I enjoy the undogmatic and find it great when you have no fear of contact and like to do something that may surprise some people and say "what?" For example, at the Venice Biennale many wondered why Delugan Meissl was developing that concept – a social project – one which is untypical for them. They usually do fancy things.

Ebru: The complexity of architecture, that there are ethical, social and formal aspects. I also believe that Kari Jormakka saw it that way. He also always addressed all the different aspects of architecture ...

Elke: Of course, that was one of his great qualities— being able to look at many different aspects and to bring them into the discourse. Kari was a cosmopolitan with a great affinity to Austria – an "integrated citizen of the world".

Note

1. "After all, aesthetics is nothing but a kind of applied physiology," Friedrich Nietzsche, "Where I Offer Objections", Nietzsche contra Wagner (1888), in: *The Portable Nietzsche*, ed. and trans. W. Kaufmann, New York: Viking, 1982, 664.



At the 8th International Bauhaus Colloquium, "Global Village", Weimar, 1999. Kari Jormakka discussing with Dörte Kuhlmann and K. Michael Hays about his book *Heimlich Manœuvres: Ritual in Architecture* (top). Kari Jormakka with Ignasi de Solà-Morales (bottom). Photos: Harald Wenzel-Orf.

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 - b. *Design Methods* [Korean translation]. Seoul: Spacetime, 2012.
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A *Gedenkschrift* is defined as a collection of writings by different authors published posthumously in honour of a scholar. The present volume is a tribute to the intellectual ideas and scholarly contributions of architecture theorist Professor Kari Jormakka (1959-2013), who died unexpectedly in his home in Vienna aged 53. A prolific author, since completing his PhD at Tampere University of Technology in 1992 he had written 12 books, edited or co-edited 16 more and is known to have published at least 110 scholarly papers. World-renowned British architect Will Alsop may have best summed up Kari Jormakka's status:

“He was one of the good guys. He truly could not be pigeonholed. As an author, academic and thinker, he was always stimulating, but as a teacher he was supreme. He was much loved by students, in part because he would always be surprising in his responses and therefore inspiring.”



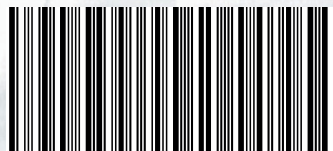
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