

# T P J THE PLAN *Journal*

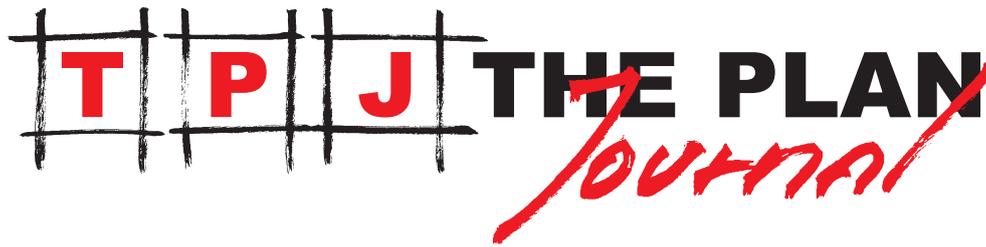
RESEARCH IN  
ARCHITECTURE AND URBANISM



VOLUME 1  
[2016]

ISSUE 1  
[SPRING]

On the cover: Aldo Rossi, with Fabio Reinhart, Bruno Reichlin and Eraldo Consolascio,  
*La città analoga*, collage, various materials, 200 cm x 200 cm (6' 6" x 6' 6"), 1976. Collezione privata.  
© Eredi Aldo Rossi  
Courtesy: Fondazione Aldo Rossi

The logo for 'THE PLAN Journal' features the letters 'T', 'P', and 'J' in red, each enclosed within a hand-drawn black grid. To the right of these letters, the words 'THE PLAN' are written in a bold, black, sans-serif font. Below 'THE PLAN', the word 'Journal' is written in a red, cursive script. A red diagonal line crosses through the end of the word 'Journal'.

*This issue is dedicated to the memory of Francesco Garofalo, dear friend and colleague, prematurely passed away this past August 14, 2016. Francesco actively contributed, with his typical critical acumen, rich and vast scholarship, and intellectual generosity, to the jury of the inaugural edition, in 2015, of the TPJ Best Paper Award, a few submissions of which are published in this issue of the journal. Francesco will be dearly missed by the global academic and professional community.*

Maurizio Sabini - Editor-in-Chief

*THE PLAN Journal (TPJ) intends to disseminate and promote innovative, thought-provoking and relevant research, studies and criticism in architecture and urbanism.*

*The criteria for selecting contributions will be innovation, clarity of purpose and method, and potential transformational impact on disciplinary fields or the broader socio-cultural context.*

*The ultimate purpose of the TPJ is to enrich the dialog between research and professional fields, in order to encourage both applicable new knowledge and intellectually driven modes of practice.*

Maurizio Sabini - Editor-in-Chief

Editor-in-Chief

**Maurizio Sabini**

PhD, RA, Int'l AssocAIA  
Professor of Architecture  
DRURY UNIVERSITY  
Springfield I Missouri [USA]  
msabini@theplanjournal.com

Publisher

**Carlotta Zucchini**

Executive Editor

**Nicola Leonardi**

Editor

**Brunella Angeli**

brunella.angeli@theplanjournal.com

Associate Editors

**Valentina Fini**

**Ilaria Mazzanti**

**Luca Puggioli**

Graphic Designer

**Gianluca Raimondo**

Layout & Coordination

**Elisabetta Madrigali**

elisabetta.madrigali@theplanjournal.com

Personal Subscriptions

**Davide Vezzani**

subscriptions@centauro.it

Institutional Subscription

**Massimiliano Aprili**

max.aprili@centauro.it

Accounting Department

**Antonella Puddu**

THE PLAN JOURNAL

**Centauro srl**

Via del Pratello, 8

40122 Bologna - Italy

Tel. +39. 051.227634

Fax +39. 051.220099

tpj@theplanjournal.com

**www.theplanjournal.com**

© Copyright CUBE srl Bologna

---

<b>EDITORIAL</b>	5
<b>In This Issue [1/2016]</b>	
Maurizio Sabini	
<b>THEORY</b>	
<b>Building Portraits</b>	7
Elena Manferdini	
<b>Towards an Ethical Technique: Reframing Architecture's "Critical Call" through Hannah Arendt</b>	17
Paul Holmquist	
<b>Planning Criticism: Operative Contingencies in the Project of the Italian Tendenza</b>	31
Paul Holmquist	
<b>HOUSING</b>	
<b>Project Strategies and Evaluation Methods for Contemporary Social Housing</b>	45
Romina Marvaldi, Elisabetta Pani	
<b>REFLECTIVE PRACTICE</b>	
<b>Art Walk / Bridging Urban Spaces</b>	59
Heather Woofter, Sung Ho Kim	
<b>URBANISM</b>	
<b>China's Grand Canal. Strategies for Sustainable Urban Development in China</b>	73
Andrea Degli Angeli	
<b>Urban Hacking. A Nobel Project for the Redundant City</b>	99
conrad-bercah	
<b>CRITICISM</b>	
<b>The Transformative Power of Urbanism. The Urban Age Conference, Venice Biennale (July 2016)</b>	119
Brunella Angeli	



## In This Issue [1/2016]

EDITORIAL

Maurizio Sabini

As issue No. 0, we hope, has clearly exemplified, this inaugural issue of the *TPJ* similarly wants to reflect the highly diverse landscape of research in architecture, while remaining faithful to our mission to publish innovative, methodologically strong and impactful scholarship. Periodic themed issues – the one on “Design for Social Impact,” No. 2/2016, will soon start to be posted on-line – will address emerging topics and challenges faced in our field, but open issues such as this one will continue to offer a scholarly platform for a variety of lines of inquiry.

In the Theory section, for example, Elena Manferdini elaborates on her visual research on building facades choosing the miesian grid as a testing ground, while offering in turn intriguing leads for further research into the democratic ethos of the grid (as a “side-effect,” I would argue, of the unfolding of the Modern Project). We only hope to see more investigation on the subject, especially if woven through Manferdini’s beautiful visual research. From a more philosophical standpoint, we host two contributions (one, by Paul Holmquist, on Hannah Arendt’s thought, and another one, by Pasquale De Paola, on the legacy of the Italian *Tendenza*) on the question of architecture’s “critical call,”<sup>1</sup> on which we will continue to reflect in future issues. Arendt’s ethical questions, as carefully unpacked by Holmquist, and the *Tendenza* as a planned critique to the involution of late-

---

<sup>1</sup> See the conversation initiated at the paper session “Critical Call,” 104<sup>th</sup> ACSA Annual Meeting in Seattle WA, March 17-19, 2016, co-chairs Robert Corser and Sharon Haar: <http://www.acsa-arch.org/programs-events/conferences/annual-meeting/104th-annual-meeting>.

Modern architecture, extensively discussed by De Paola, offer enlightening contributions on the on-going important question of how can architecture maintain and redefine its mission to be a critical voice within culture and society. This renewed interest in Rossi's legacy is actually quite fitting, as this year marks the 40<sup>th</sup> anniversary of the "Analogous City": a complex and "thick" line of inquiry brilliantly collapsed in a drawing/collage that so powerfully continues to resonate with us today.

A clear example of one of several ways in which to pursue architecture's critical call is Conrad-Berch's provocative delineation of a possible strategy to re-imagine, taking Berlin as a "pre-text," what he calls the "redundant city." Still within the realm of urban studies (which will continue to find ample room within the *TPJ*), but more through the lenses of architecture and infrastructure, Andrea Degli Angeli develops a fascinating vision of a new role for one of China's most famous historic territorial artifact: the Grand Canal.

At the other extreme of urbanism, up to the scale of urban furniture, but still aiming at re-imagining the public realm, Heather Woofter and Sung Ho Kim of Axi:Ome reflect on one of their projects for Saint Louis (Art Walk), realized to date only partially through some fragments. And yet, it is precisely this "strategy of fragments," alluding though to a larger idea of the city, that makes Axi:Ome's project so interesting and critically positioned. Here the words by Aldo Rossi (whose thought is coincidentally revisited by De Paola in his article) come back to mind: "To what, then, could I have aspired in my craft? Certainly to small things, having seen that the possibility of great ones was historically precluded."<sup>2</sup>

As notably elaborated by Aldo Rossi, residential typology has always been one of the most critical realms of experimentation at the intersection of architecture and the city. Housing is in fact the topic of Romina Marvaldi's and Elisabetta Pani's discussion of select contemporary residential interventions in Europe, where the input and feedback from the inhabitants have been the lens through which analyze both design and post-occupancy evaluation processes.

Participatory design and planning is also at the center of Brunella Angeli's thoughtful report on the LSE-Cities Urban Age conference held at the 2016 Venice Architecture Biennale this past July. The rich critical conversations that unfolded at that event on global issues pertaining the future of our cities will certainly continue in the years to come, also sustained by critical moments of reflection and discussion such as the UN conference "Habitat III" in Quito (Ecuador), currently underway at the time of this writing. The next issue of the *TPJ*, themed on "Design for Social Impact," will also contribute to this important conversation, in which our field is (and should be) engaged more than ever.

---

<sup>2</sup> Aldo Rossi, *A Scientific Autobiography*, transl. Lawrence Venuti, with a postscript by Vincent Scully, Cambridge MA (USA): The MIT Press, 1981, opening quote (unnumbered page).

# Building Portraits

THEORY

Elena Manferdini

*ABSTRACT - Building Portraits is a suite of elevation studies developed by Atelier Manferdini for an exhibition at the Art Institute of Chicago in 2015 called Building the Picture and a subsequent solo show at Industry Gallery in Los Angeles in 2016 called Building Portraits. These 42 drawings were produced during the past two years and they explore the potential of intricate scripted line work depicting building facades. The collection exists simultaneously as architectural research and as autonomous artwork. These drawings can be understood as scaled down reproduction of buildings, and at the same time as full scale printed artifacts. The collection plays with the graphic potentials of woven grids and scripted vector lines, while exploring the canonical relationships of shape vs form, ground vs figure, pattern vs coloration, orientation vs posture. The title of the suite Building Portraits alludes to two distinct disciplines, the field of architectural drawings, building, and the one of fine artistic pictures, portraits. This body of work tries to claim a territory where these two attitudes find a common ground, where pixels and vectors get closer in scale of perception.*

---

**Keywords:** architectural drawings, scripted drawings, Mies van der Rohe, facades

---

Through the centuries, drawings have measured the level of cultural and technical knowledge reached by a society in its various historical moments. Drawings, like glass lenses, are a medium through which

one can observe the way new tools and techniques are challenging the normative way we describe our surroundings. By nature, graphic representation is mutable and resistant to strict codifications; drawings have the ability to change in scale, style, form, accuracy, pictorial and technical resonance. They easily jump from field to field, often acquiring new potentials or losing their original meaning. They can be armatures for geometrical descriptions or mere vessels of communication.

If we would take on the task to trace the lineage of the “architectural drawing,” we would quickly be confronted by a difficult dichotomy. Architectural drawings are the product of an inherent duality: they can be imaginative or deterministic, speculative or technical, general or prescriptive. Regardless of these dualities, they still possess the ability to be called “architectural drawings.” This moniker falls within a wide spectrum of possible representational expressions that are not easy to categorize. They can be the manifestation of the architect’s artistic ability, and at the same time a demonstration of his/her technical *savoir-faire*.

The reason for this ambiguity lies in the scale of architecture. The medium of architecture is not a drawing, but a fully built object - usually larger than its form of graphic representation. Therefore the working space of a drawing is a disciplinary playground, where architects create forms of memory, and not the work itself. This scalar documentation (bi or three dimensional) can manifest itself as a set of instructions on how to build in the real architectural medium, or intuitions of what the fully present architectural object could look like.

Drawings are the quintessential visualization of the tension between foresight and reflection, between concreteness and abstraction. In other words, they oscillate between being a way to imagine a plausible reality, or simply a means to an end. Because they are far enough from the real medium of architecture, they are free from physical inherent limitations.

The risk associated with working through graphic techniques (rather than the architectural medium) is that architectural drawings inherently may become hostages of other disciplines: fine art, on one side of the spectrum, and commercial representation, on the other. In this already difficult equation, digital tools have introduced another layer of complexity and an array of unprecedented possibilities to imagine this ever-changing territory. For instance, the realm of the architectural medium unexpectedly entered the abstraction of the architectural drawing with the fast advancement of digital photorealistic representation, three dimensional data collection, and material simulation.

This research is not an attempt to find a new overall post-digital diagram able to explain the faceted nature of our updated drawing skill-set. In fact, despite the various heroic attempts to draw it, this

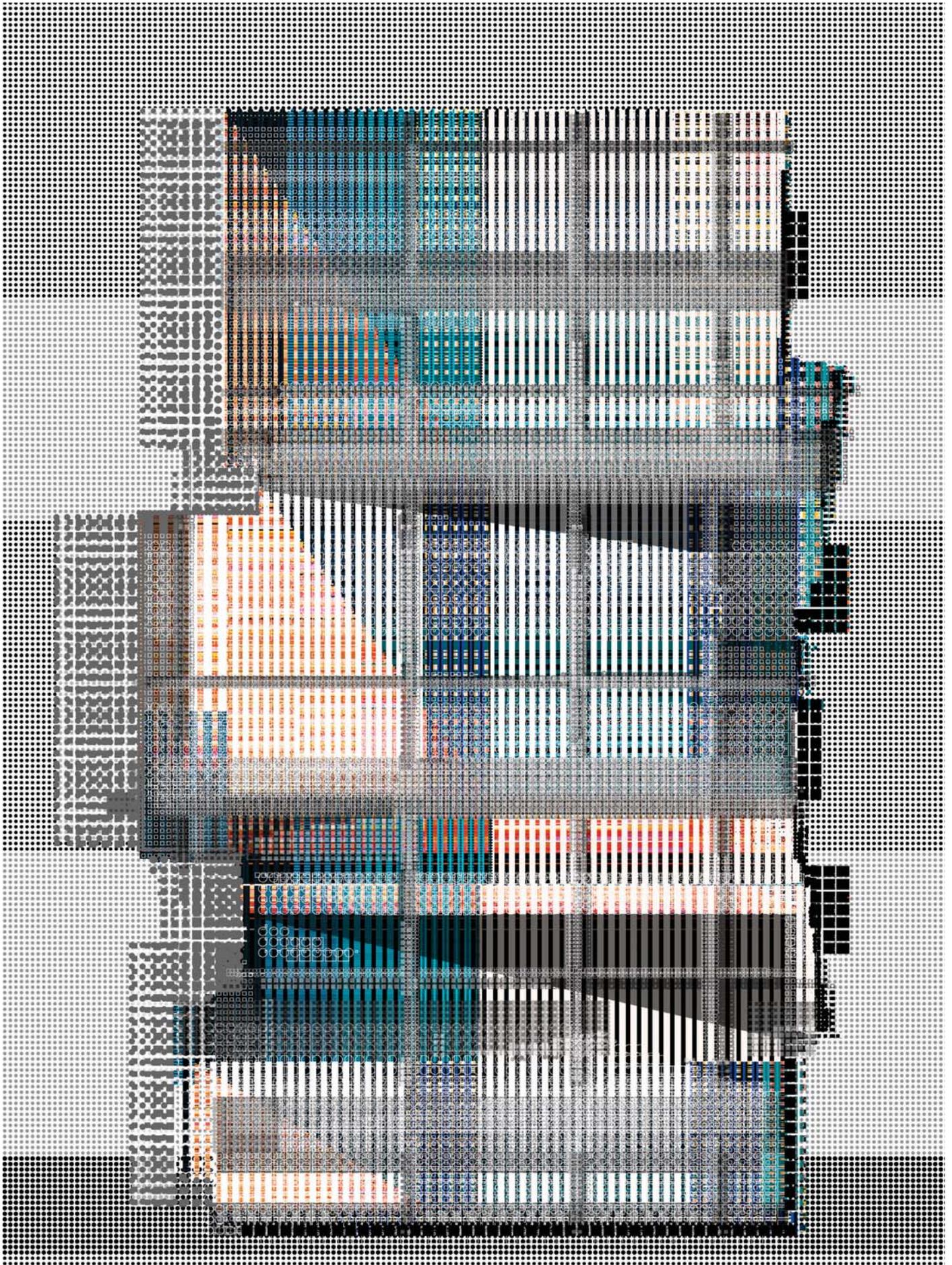


Figure 1. Building Portraits V. Series of Four Drawings 2015. Archival Ink Prints. San Francisco Museum of Modern Art permanent collection.

diagram might simply not exist, or might be too simplistic to matter as a valid thinking tool. Instead this research revolves around a specific relationship between digital scripted drawings and analogue pictures of the architectural medium. The hope behind choosing these two points of departure is to work out ways in which an analog architectural medium - a picture of a real building - can enter the abstract space of the architectural drawing. This body of work makes a case that scripted drawings have now the ability to carry an enormous amount of data and therefore we are closing the gap between the analog medium of architecture and drawings.

To prove this hypothesis, the initial research used as a point of departure a well-known analog picture of Ludwig Mies van der Rohe's Lake Shore Drive apartments building facade (Chicago, 1958-51). The procedure was to take the original black and white photograph of the architect's masterpiece, scan it, script it with discrete vector lines and weave it with a second colorful one authored by Atelier Manferdini, at a different scale of resolution. A series of cyclical operations were applied to the raster image in order to transform the image into a set of vector lines (Fig. 1).

The decision to start a set of autonomous drawings on patterns and facades came from a personal fascination with the work of Mies van der Rohe and the aesthetic value of his elevations. His work represents a perfect case-study to explore how scripted line work and ordered mullions could inform each other, and therefore provides ways to work with the medium of architecture – mullions - in the drawing space-grids. The selection of Mies' buildings was guided also by the timid attempt to link meaning to geometry. Mies' constructions are historically famous examples of how the geometrical ordering system of the grid embodied a political meaning in our discipline. Mies' elevations, like many other Modernist works, projected an egalitarian image of the built environment. At a time when the reading of a modern building was supposed to be a by-product of its constructive technology, the modularity of its assembly system was asked to reinforce the idea of technical efficiency and social democracy.

Following this tradition, Mies' buildings assumed the generic attributes of production: for instance the facade adopted ready-made steel members as mullion systems; his elevations revealed the load-bearing structure and its construction methods became their primary expression. If one, though, takes a closer look at one of his facades, it is possible to discover that he often corrupted the functionality of his envelopes with ornamental fine grain mullions that had no use other than creating an interesting optical effect. Furthermore the effect achieved by these black mute big buildings in the city was all but generic: the steel mullions, along with the dark glass curtain wall, were able to create vibrant reflections that dynamically multiplied the image of one building onto the surroundings ones.

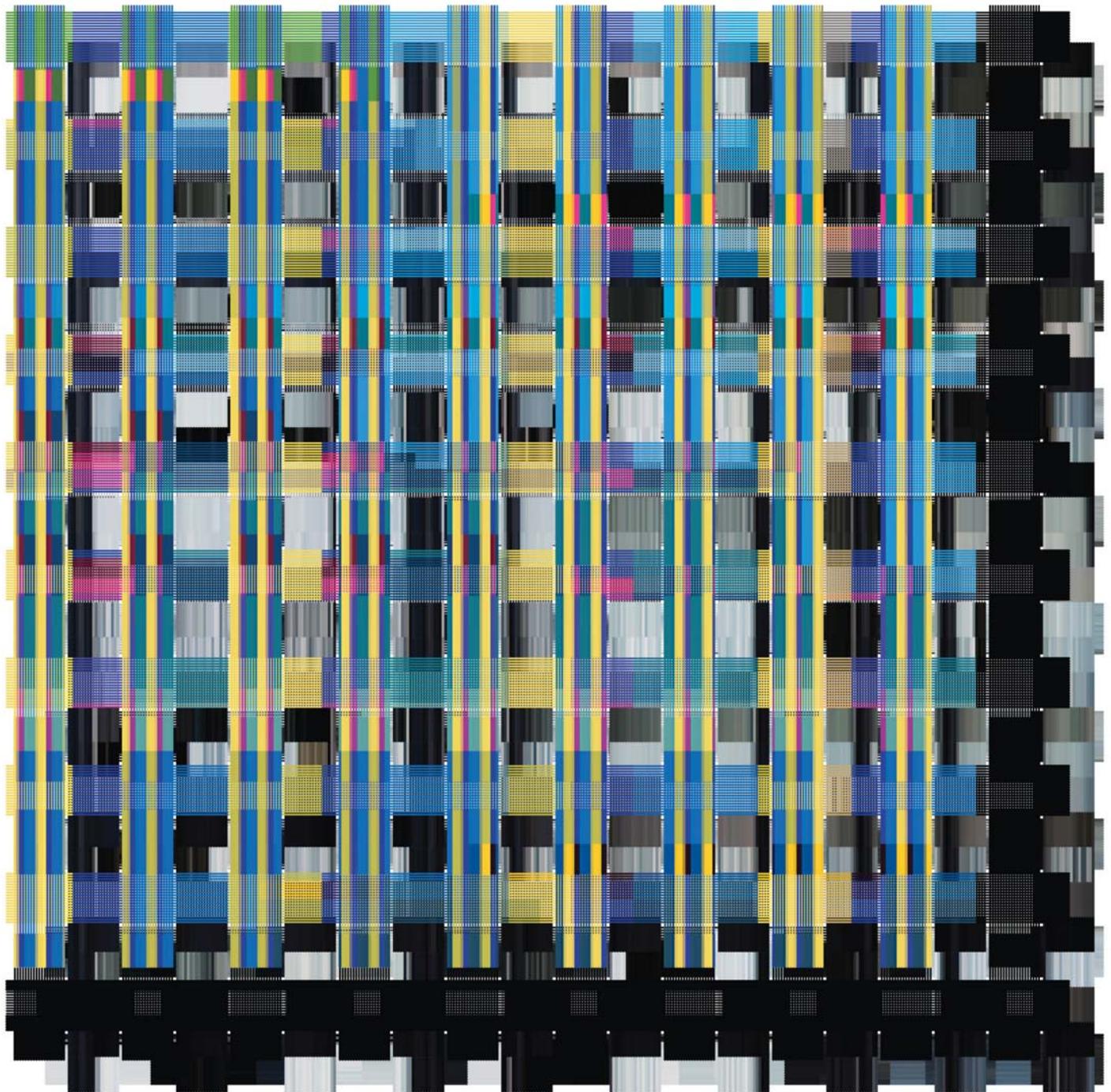


Figure 2. Building the Picture III, 2014. Print on Aluminum 24" x 24".

Building upon Mies' facade and the discrepancies produced between modules and functionality, this first drawing (Fig. 2) subverts the mechanical use of the grid and its relationship to the modular systems in building construction. For instance the scale of the weave and fenestrations do not correspond to the location of the slabs behind them. The role of the grid in this drawing is the one of "picturing" ideas of fenestrations; often out of scale or with misaligned edges, the window pattern suggests a familiarity that at times reveals instead a radical departure from what we know as being generic.

Modular rigor is also applied to the chromatic finish of the facade: a relatively small selection of colors is able to create a wide variety of shades because of the intricate digital juxtapositions and overlay of treads next to each other. The computational process of overlaying pictures to drawings and finely weaving them together is able to merge the sterilizing line of the computer with the fertile line of city pictures. This is how computational abstraction and photorealistic figuration can be woven with each other in order to simultaneously occupy the viewers' perception. In addition to that, the weaves present a set of discrepancies and fringes when they reach the borders of the buildings: as they fray, they dismantle any canonical understanding of boundaries as symbols of hierarchy and traditional typology.



Figure 3. Hermitage Façade Drawing. Visualization of ongoing Façade for the Hermitage Garage in Saint Petersburg Florida 2016

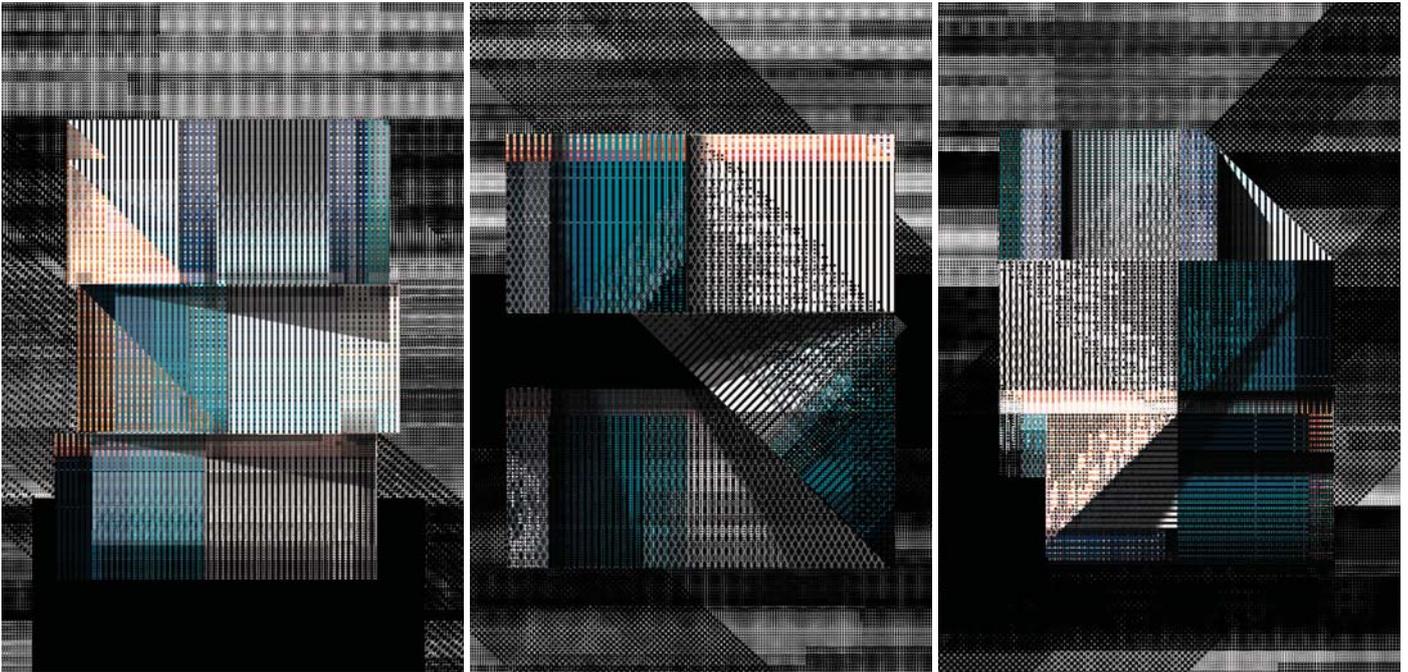


Figure 4. Forms and Ground I, Forms and Ground II, Forms and Ground III. Series of Three Drawings, 2015. Archival Ink Prints 13"x 19".

*Building the Picture* updates the project of the grid in the age of computation and globalization. The belief behind this research is that the grid applied to city facades (with a revised contemporary materiality and computational geometry) is able, once again, to estrange the buildings from the ordinary and render them unique architectural experiences.

To test these theories, an initial *Building Portraits* drawing (Fig. 3) has been the point of departure for the design of a full scale facade application in Florida. The drawing space has been scaled up to a 40' x 80' architectural wall. The building facade is attached to a blank parking structure serving the newly constructed Hermitage housing project in the city of Saint Petersburg. Interestingly, parking facades are designed to a necessary degree: their appearance is often straightforward, earnest, and most important of all, non-exclusive. They are underestimated as anonymous. Nevertheless they also own a strong identity that inadvertently imposes itself (Walter Gropius called this "the unintentional beauty of industrial buildings"). These facades display a specific *brut* aesthetic that exists in architecture in the absence of routine human interaction.

The applied facade will introduce a new and contemporary sensibility to the structure through graphic, colors and shallow depth. Simultaneously, it will give a sense of human inhabitation to the parking garage.

If this initial suite of drawings for the exhibition *Building the Picture* at the Art Institute of Chicago originated from the desire to update

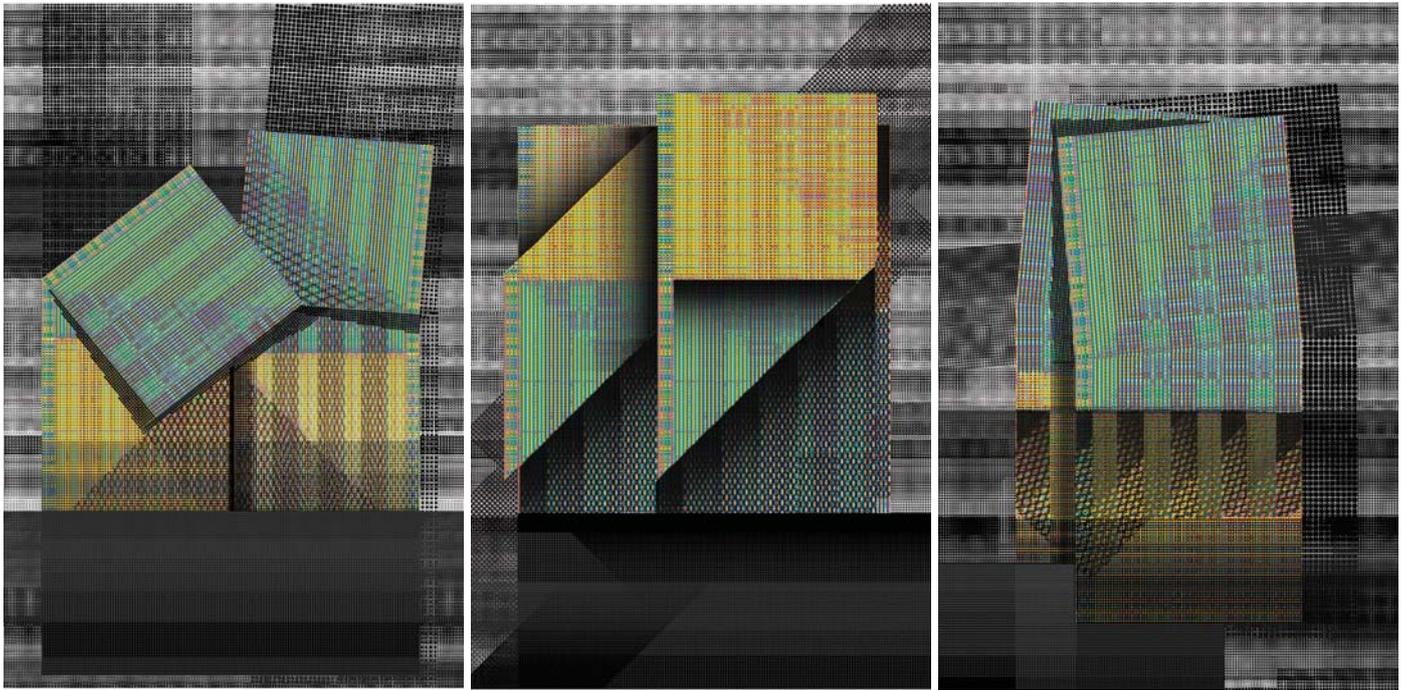


Figure 5. Postures and Ground I, Postures and Ground II, Postures and Ground III. Series of Three Drawings, 2015. Archival Ink Prints 13"x 19".

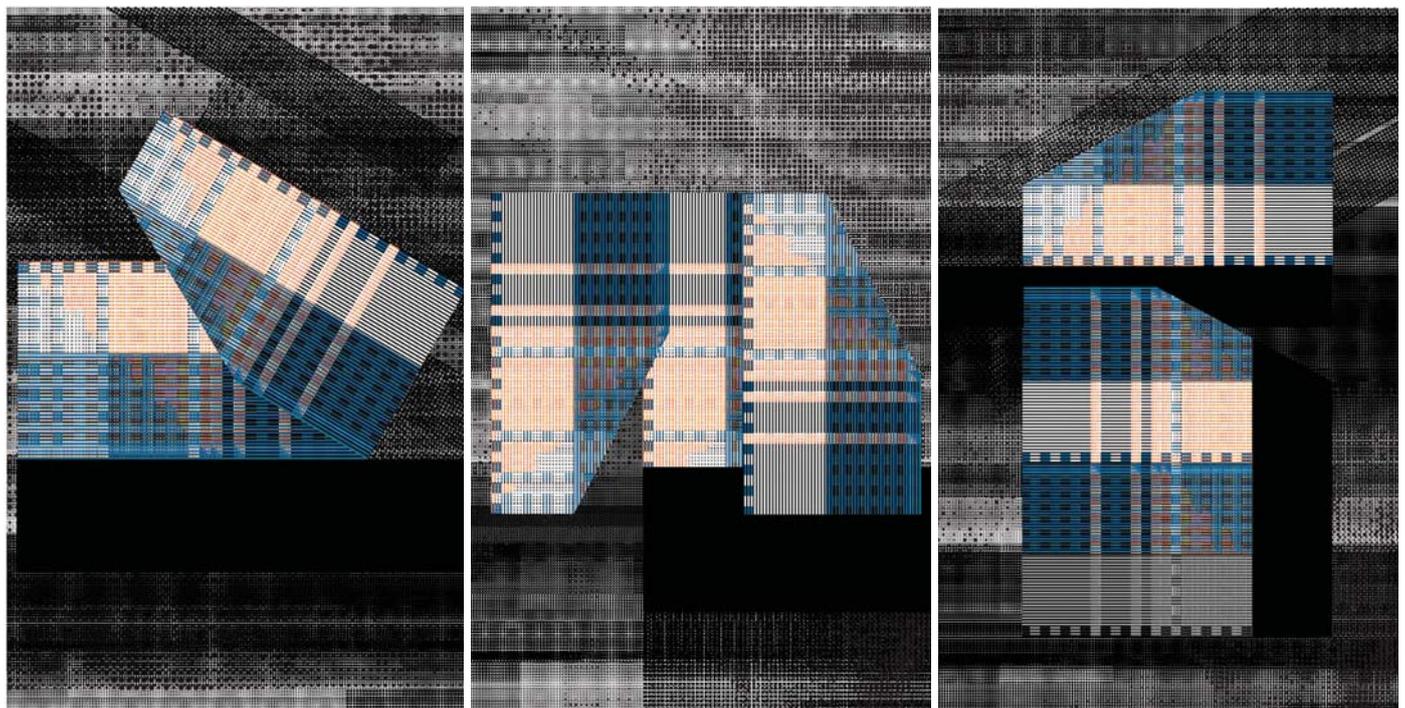


Figure 6. Postures and Ground IV, Postures and Ground V, Postures and Ground VI. Series of Three Drawings, 2015.

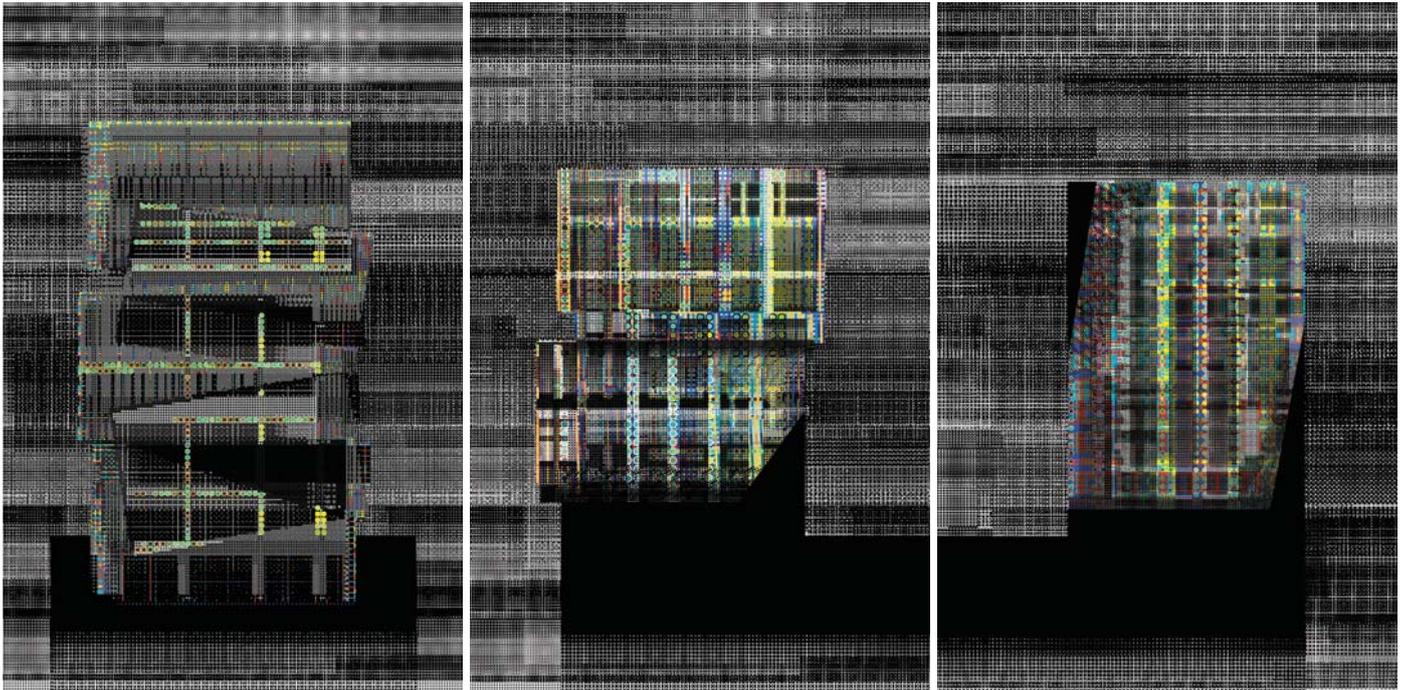


Figure 7. Forms and Ground\_IV, Forms and Ground\_V, Forms and Ground\_VI. Series of Three Drawings, 2015. Print on Aluminum 24"x 36".

the relationship between drawings and architectural facades, in time the work evolved in three dimension and engaged with the canonical volumetric relationships of shape vs form, ground vs figure, pattern vs coloration, and orientation vs posture (Fig. 4).

The natural development of this research evolved in a second set of drawings, called *Building Portraits*, for a solo show at Industry Gallery in Los Angeles. This new body of work came from the realization that if Modern Architecture felt short to express the complexity of a current sensibility, where diversity and heterogeneity are the essence of contemporary culture, then a new set of three dimensional operations are nowadays needed to update the political project of architecture. If the introduction of the anomaly of the grid on a flat facade might not always be a sufficient tool to represent the multifaceted political subjectivity that is constantly reformulated in the age of globalization, then contemporary architecture needs also to develop original responses to the generic through a variety of massing strategies (Fig. 5).

This second suite of drawings tries to define such contemporary generic. These compositions argue for the fertile juxtaposition of simple shapes, uniquely oriented in relationship to the ground. The work explores orientation vs posture or shape vs form (Figs. 6-7).

The conceptual basis for this entire research is rooted in the belief that contemporary architecture is now able to produce new geometrical forms that can no longer be structured on the traditional opposition between front and back, private and public, top and bottom. These new envelopes rely on highly choreographed experience of the surface, with its loose orientation on the ground. The work is not based on an historical-interpretive methodology or logical argumentation, but wants to provide a working methodology towards a contemporary aesthetic of computational, multi-directional, dynamic ordering system.

### **Acknowledgements**

A previous, abridged version of this article was published as “Miesian Grids and the Domain of Ink” in Architectural Design “Mass Customized Cities,” November 2015. We thank John Wiley and Sons, publisher of Architectural Design, for their consent to the publication of this expanded version of the original article.

**Elena Manferdini** graduated in Civil Engineering from the University of Bologna (Bologna, It.) and later received her Master of Architecture and Urban Design from the University of California, Los Angeles. In 2004 she founded Atelier Manferdini in Venice CA. In 2011 she was one of the recipients of the prestigious annual grants from the United States Artists (USA) in the category of architecture and design. Since 2003 Elena has been part of the design faculty at the Southern California Institute of Architecture (SCI-Arc), where she is now the Graduate Programs Chair. E-mail: [elena\\_manferdini@sciarc.edu](mailto:elena_manferdini@sciarc.edu)

# Towards an Ethical Technique: Reframing Architecture's "Critical Call" through Hannah Arendt

THEORY

Paul Holmquist

*ABSTRACT - This paper examines how the critical vocation of architecture might be reclaimed through reconsidering the interrelationship of technique and politics in light of the political philosophy of Hannah Arendt. I argue that Arendt's conception of a fabricated common world that is essential to establishing a properly human sense of reality opens up ways to rethink the constitutive political role of architecture. As a discipline, architecture comprises an "ethical technique" by which to guide the fabrication of the condition of "the common," and to constructively embody the recognition of a primary political reality arising out of human plurality. In so doing, architecture can projectively envisage and prepare for the emergence of a potential politics alternative to the apparatus of capital.*

---

**Keywords:** Hannah Arendt, Critical Call, criticality, ethics, technique

---

From the early twentieth century Avant-garde to contemporary notions of "spatial agency," so-called "critical architecture" has always entailed a politics of making: or rather, the attempt to "make" politics through architectural artifacts and processes, in order to transform people's lived reality, to empower them to act differently, to change their consciousness and their possibilities of self-realization, against the hegemony of capital.<sup>1</sup> A dogma of Modern Architecture has been that new ways of making – new techniques and technologies – if guided correctly, can produce new political possibilities. Yet implicit throughout much of the recent debate

about the question of “criticality” in architecture is a recognition of the difficulty, if not failure, of this belief in technique: in spite of our best intentions and techniques, architectural practice has become increasingly indistinguishable from the diffuse technological and spectacular operations of capital. Yet, for many architects and architectural thinkers, architecture as a discipline retains the capacity to be critical: to mitigate or counter the apparatus of capital, to provoke or elicit constructive change, to empower people and to effectively produce another political reality. But how can this critical and effective capacity be understood, if not through technique? If politics is ultimately at stake, then the proper domain of the question is ethical, rather than technical. How can the case be made for an “ethical,” rather than “technical,” conception of technique? What would such an “ethical technique” operate upon, and what would it “produce”? In what way would it be critical, and how could architecture’s “critical call” and task then be understood?

To answer these questions, I will first examine how the presumption of a critical, political capacity of technique in architecture can be understood in light of Walter Benjamin’s conception of technique in art as capable of revealing and remaking the lived experience of reality as “production.” I will then show how in the political philosophy of Hannah Arendt, technique can be understood to assume an ethical, rather than technical, relation to a primary, politically constituted human reality, dependent upon the “commonness” of a fabricated world of things. I will then argue that architecture, in fabricating this “common world,” is called upon to make it common, and that “making common” can be understood as an “ethical technique” proper to architecture as a discipline. By virtue of the notion of an “ethical technique,” architecture’s “critical call” can be reformulated as a call to, in effect, “change the world,” through constructively envisioning the concrete forms and conditions of “commonness” by which a politics of human action can emerge that resists and counters the apparatus of capital.

## TECHNIQUE AND REALITY

Implicit in Modern Architecture’s claim to socio-political efficacy was the presumption not only to give expression to the lived reality of modernity, but to transform it through technique. The precise relation between technique and lived reality underlying this claim was perhaps articulated most clearly by Walter Benjamin. In his 1934 essay “The Author as Producer,” Benjamin posited technique as the means by which art, as a mode of production, could come into a “correct” relation with politics according to Marxist critique, and obtain an “organizing function” to transform the social conditions of production, rather than reproduce them.<sup>2</sup> Through new techniques, the work of art could reveal the nature of reality as production, and induce others to become active producers, rather than passive consumers, of their own lives.<sup>3</sup> Although

he did not speak of architecture in the essay, Benjamin's valorization of technique correlated with the assumption of architecture's "critical call" in the twentieth century that architecture was itself a mode of production, capable of producing new political possibilities through new constructive, organizational, programmatic and aesthetic techniques and technologies. Technique could not only reveal reality, but also "produce" it anew according to a correct understanding of human reality as production, thus empowering and emancipating people to live and work within this new reality. Technique was thus the means by which the artist as "producer," as well as producers of all kinds, could concretely realize political ends.

Technique could reveal and operate upon socio-political reality for Benjamin because this reality was the essentially technical, materialist reality of production, capitalist or otherwise, which was identical to the techno-scientific understanding of physical reality. If technique could reveal the nature of reality as production, it also inevitably perpetuated and reproduced a conception of reality that was susceptible to direct instrumental operation, and was effectively a function of technique itself. Even while he asserted the revelatory and transformative capacity of technique, Benjamin recognized its essential political ambivalence. Citing the descent of New Objectivity photography into mere aestheticism, he warned of the propensity of art to lose its transformational capacity through the formalism of technique, which allowed it to be subsumed by capitalist production and commodification only to "renew from within ... the world as it is."<sup>4</sup> Technique had to constantly progress and innovate in order to reveal the reality of production anew before this very "reality" itself became that of the apparatus of capital, effectively condemning technique to reproducing this reality, rather than transforming it. This appears to have been the trajectory of architecture's own "critical project" over the course of the twentieth century, through the various "machines" for living and working, in which technique was identified expressly with technology and architecture largely became functionally and aesthetically indistinguishable from the techno-spectacular apparatus of capital, in spite of its intentions.<sup>5</sup>

Hannah Arendt's political philosophy allows for a different way to conceive of the socio-political efficacy of architecture, and of the effective political relationship between technique and reality. In *The Human Condition*, Arendt's seminal philosophical work published in 1958,<sup>6</sup> she asserts the substance of politics as the realization of human freedom in spontaneous action and speech, rather than through the transformation of nature through productive labor according to Marxist theory. Action and speech require a durable, man-made "common world" to acknowledge, remember, and orient them, and in which they can attain meaningful, public significance by being seen and heard. For Arendt, the durability of the common world is crucial for its ability to transcend the lifetime of individual men, and thus to give a relative permanence to otherwise fleeting words

and deeds, and to the entire realm of human affairs itself. In posing a man-made, common world as an essential condition of politics, Arendt opens a way to reframe the relationship between technique and lived reality in architecture such that the very possibility of politics, rather than the realization of political ends, becomes a task for architectural making.

Arendt looks to the origin of the Western political tradition in ancient Greece to obtain the key concepts for her trans-historical understanding of human politics. Her theory rests on the crucial distinction of political action from two other forms of human activity: the work of fabrication, which constructs the common world of man-made things; and the productive labor that sustains natural human life, such as producing food and maintaining a household. Politics, for Arendt, is the exclusive domain of action, or the actualization of human freedom in significant deeds and speech. As an end in itself, the purpose of action is to disclose one's unique, human identity in relation to the highest human qualities and principles – to manifest the beauty of the divine. Action and speech create a space in the public realm, sustained by the common world, in which actors appear as “who” they truly are. Properly political action for Arendt is thus free from practical ends; rather than accomplishing objectives, action discloses unique human agents, and so “the human” itself. Action and speech constitute what Arendt calls the “web of human affairs” in provoking indeterminable processes of actions and reactions within a community of actors. The essential condition of politics, according to Arendt, is the plurality and diversity of actors, each with his or her unique perspective. The sense of a common “political” reality obtains from the reconciliation of the plurality and diversity of these perspectives, which allows action and speech to in turn attain their reality and meaningfulness.<sup>7</sup>

Although the work of fabrication for Arendt is not itself political in the manner of action and speech, it provides for the possibility of politics by constructing the meaningful context for acting and speaking – the common world that sustains the public realm. Architecture and art have historically been the privileged modes of fabrication with respect to the public realm. Political freedom is a spatial construct for Arendt;<sup>8</sup> politics is grounded in place, and must be bounded by walls, as in the agora of the Greek *polis*.<sup>9</sup> The common world is a phenomenological mediatory milieu, which Arendt famously characterizes with the figure of a table: “To live together in the world means essentially that a world of things is between those who have it in common, as a table is located between those who sit around it; the world, like every in-between, relates and separates men at the same time.”<sup>10</sup> As such, the fabricated common world is a pre-condition of politics, which anticipates, embodies and acknowledges the primary, politically constituted human reality that is necessary for action and speech to be meaningful. The common world sustains a public realm by virtue of its publicity, in which everything can be seen and heard by



Figure 1. Hannah Arendt. © The Fred Stein Archive.

everyone, and obtain its objective reality. Arendt furthermore asserts that the common world must be “fit” for action: <sup>11</sup> through its beauty and permanence, the common world must implicitly acknowledge the human ideals and principles that orient action and speech in appearing, or “shining forth,” as the world had in common. <sup>12</sup> In so doing, the common world as the public realm can properly testify to and memorialize action and speech so as to give them a relative permanence, and enable them to inspire new speech and action. The enduring concreteness and commonness of the fabricated world is thus what allows for the actualization of human freedom, which Arendt saw as the essential purpose of the Greek *polis*.

Arendt’s formulation of a fabricated, common world as the pre-condition for politics thus provides a way to reconceive the relationship of technique to human reality invoked by Benjamin in ethical, rather than technical, terms. The human sense of reality is not a given condition for Arendt, but constituted through lived experience with others by virtue of the commonness and publicity of the world. “Under the conditions of the common world, reality is not guaranteed primarily by the ‘common nature’ of all men who constitute it, but rather by the fact that, differences of position and the resulting variety of perspectives notwithstanding, everybody is always concerned with the same object.” <sup>13</sup> Arendt furthermore writes, “Only where things can be seen by many in a variety of aspects without changing their identity, so that those who are gathered around them know they see sameness in utter diversity, can worldly reality truly and reliably appear.” <sup>14</sup> The publicity of the common world – its ability to be seen from multiple perspectives by multiple

actors – guarantees this reality for Arendt. In constructing the common world, fabrication and technique do not reveal or transform a given reality in order to realize political ends, but rather allow for the constitution of the reality in which human politics can take place. This reality can only obtain its commonality and objectivity within a fabricated common world of things. Only within such a common, lived reality can speech relate to action and vice versa, and attain their reality in becoming effective. As part of fabrication, technique then provides for the possibility of a politics in which people, through freely speaking and acting together, can disclose their unique human identities in deciding how to live.

### “MAKING” POLITICS

According to Arendt, Plato was the first to conceive of politics as a practice or technique for the realization of political ends, thus initiating the Western tradition of political philosophy that Marx and Benjamin were heir to.<sup>15</sup> She argues that, in *The Republic*, Plato adopted fabrication as the primary mode of political action in order to remedy the inherent uncertainty and unpredictability of action. Fabrication was properly the mode of the craftsman; it could not be a political activity because it was ruled by necessity and essentially unfree. Insofar as fabrication produced the things of the common world, it was considered to be pre-political. The craftsman fabricated objects according to the instrumental logic of ends and means, imposing ideal models onto natural material through violence. Arendt charges Plato with acting analogously to the craftsman in conceiving his ideal city, in which he reconfigured human affairs according to an ideal model of the good. Politics for Plato thus became a means to a higher end: an art that operated on the substance of human affairs to give it proper shape on the basis of theoretical knowledge. Arendt argues that this instrumental model of “making” politics provided the modern template for political action in the organization of nation states and their economies, as well as for revolutionary and utopian political theories seeking to re-make the order and substance of human affairs.<sup>16</sup>

Arendt’s concern with politics in the mode of making is first and foremost that it precludes an authentic human politics of freedom. Bound within the instrumental logic of ends and means, free human agency for its own sake is denied, and the “human,” properly speaking, cannot be disclosed. In addition, Arendt argues that no meaning or identity can emerge from the framework of ends and means governing fabrication: meaning cannot be “made.”<sup>17</sup> Fabrication is a means to an end: determined by this end, it cannot address the ultimate “sake” for which making occurs – human self-realization. A further consequence of “making” politics is that the human sense of a common political reality is destroyed. The operative reality of the craftsman is the physical reality of the material world, which he knows through the solitary exercise of his technique. One perspective rules absolutely throughout the fabrication process, combining utility,

economy, and effectiveness in achieving the desired end. Taking fabrication as a model for politics violently denies the human condition of plurality, as the reality that derives from it has no operative or productive value. Unable to recognize this primary human reality, politics in the mode of making destroys the substance of human affairs for Arendt by treating it as if it were mute, inert matter.

Arendt's critique of making in politics holds for architecture, as much as it does for Marx and Benjamin. Generally sharing Benjamin's valorization of technique, "critical" Modern Architecture aspired to "make" politics: to realize the ends of a politics of human liberation and realization through the application of new technologies, rather than establish the context in which free action and speech could take place and become meaningful. In light of Arendt's critique, a politics of architectural technique can lead neither to human freedom, nor attain meaning itself. Directed to achieve political ends by way of its very fabrication, the world cannot stand apart solely to acknowledge and orient action. Rather, it pretends to a properly human agency to condition action according to ideal schemas, however well intentioned, whose values, principles and outcomes are always foreseen, if not predetermined. Furthermore, conceived and fabricated within the perspective of a singular maker, the world cannot truly acknowledge or accommodate the necessary plurality of human perspectives: it can no longer be truly common, or the basis for constituting a common political reality.

Such a commonly constituted reality is furthermore preempted by architecture's identification of technique with technology, which addresses an exclusively techno-scientific conception of reality. In so doing, architecture not only acts upon physical reality according to hypothetical schemas, but also upon the world of human affairs by adopting social, political and behavioral theory from the human sciences. Traditionally, architecture could always reconcile heterogeneous "realities" and forms of knowledge, as constituent aspects of a unified cosmos, into a meaningful whole that could be known through both common sense and theory. However, technique as technology attempts no such reconciliation: techno-scientific reality fundamentally denies the humanly constituted political reality conceived by Arendt. In acting exclusively through technology, architecture reproduces scientific reality as de facto political reality: common, human reality thus effectively becomes a function of technique, rather than of common sense. In this way, architecture delivers human reality wholly over to the operative, techno-scientific reality of the apparatus of capital, in which the natural, technological, social and psychological are collapsed into a single sphere. In the obliteration of a commonly constituted reality, the very possibility of a public realm, and of a politics of human freedom in Arendt's terms, is precluded.

## MAKING COMMON

Following from Arendt, the political ambition of architecture can be properly understood as not only to fabricate the common world, but to fabricate the material condition of the common itself, for the sake of a human reality in which politics can take place. The technique at issue in this fabrication is ethical, rather than technical: an “ethical technique” of “making common,” in order to prepare a potentially vital, even authentic, public dimension in spatial experience. In recognizing a primary human reality that is politically constituted, and prior to any techno-scientific or theoretical conception, this sense of “ethical technique” can potentially allow for action to be conceived other than as a mode of production. Released from the necessity of production, action can realize essential human freedom outside of the operative reality and techniques of the capitalist apparatus. An ethical conception of technique then provides a critical means of rethinking architecture’s capacity to elicit, provoke or acknowledge new modes of commonness, and thus new modes of human action and forms of culture, alternative to those of capitalism.

In Modernity, however, the very idea of “commonness” is deeply problematic, as is architecture’s claim to the authority and knowledge to act through a notion of ethical technique to recover, or reconstitute this commonness.<sup>18</sup> The commonness of the world in Arendt’s terms is no longer given; technique as technology cannot make common, but only reproduce the operative reality of capital. Yet there is precedent within the tradition of architecture as a discipline for such an ethical technique, which arguably can find continuity in modernity. Traditionally, the methods and knowledge of technique as constructive know-how were distinct from those by which architecture accommodated the socio-political world of human affairs. Technique fell within what David Leatherbarrow refers to as architecture’s “technical reason,” by which architecture engaged the reality of the physical world.<sup>19</sup> Technical reason was guided by a correlative “ethical reason,” alongside the self-reflexive “philosophical reason” of architectural theory, such that architecture could effectively situate and orient human life. Ethical reason, Leatherbarrow writes, was a practical reason, capable of grasping the “patterns” and “structure” of life situations in relation to the concrete practice of building.<sup>20</sup> Accordingly, Leatherbarrow writes that architectural practice was, and remains, primarily a matter of “ethical understanding.”<sup>21</sup> As such, it was by ethical, rather than technical reasoning, that architecture could exist as a discipline in its own right, and play a vital role in human culture.

Leatherbarrow’s account of ethical reason aligns with Arendt’s invocation of *phronesis*, the faculty of political insight in ancient Greece by which the political actor could take account of greatest possible overview of different perspectives, motivations, potential courses of action, and arrive at a proper judgment of how to act.<sup>22</sup> Ethical reason also aligns

with Arendt's conception of common sense as a practical reasoning, by which the multiple perspectives of individuals can be reconciled in a common, objective reality, by virtue of sharing a world.<sup>23</sup> Architecture's ethical reason then can be understood as such a practical reason, and the capacity to spatially reconcile the perspectives of human plurality into a common reality through fabrication can be thought of as the particular "technique" of ethical reason – the technique of "making common" – alongside the technological methods of technical reason. Within this notion of an ethical technique, architecture can, in principle, reconcile Arendt's notion of reality, constituted politically through common sense, with the opposing, operative reality of science and technology. In so doing, architecture can aspire to recognize and embody an authoritative reality that is truly common, in which the full plurality of perspectives is preserved.

As a disciplinary capacity drawing upon the tradition of practical wisdom, architecture's ethical reasoning possessed a primary authority with respect to the form and substance of human affairs, and the nature of human reality.<sup>24</sup> However, the authority of this ethical reasoning was challenged by modern science, which sought to describe physical and socio-political reality in the same terms, and as equally susceptible to technological operation. In adopting techno-scientific reality and methods as its own, Modern Architecture renounced its traditional disciplinary knowledge and authority. Architecture's ethical capacities were subsumed within those of technique, which could not address the essentially "human" dimension of socio-political reality. Furthermore, by generally allying its moral and political ambition with Marxist social theory, Modern Architecture renounced its own self-reflective, theoretical capacity as a discipline. The task of reframing architecture's "critical call" is therefore that of recalling its ethical and political vocation and authority as a discipline, at a moment when the primacy of technique as a political method, in spite of its futile history, remains a deeply felt conviction. This reframing can proceed only by recognizing the primacy of a human reality susceptible not to technological operation, but to an "ethical technique" proper to architecture as a discipline, capable of acknowledging a conception of human politics outside of the apparatus and the attendant theories of liberation that resist it. Asserting the primacy of architecture's disciplinary knowledge and techniques in turn asserts the capacity of architecture to positively reshape the fundamental conditions of human life: to propose alternative visions of the world, rather than reproduce existing ones.

Arendt founds her political theory by reaching back to a world that is no more. In Late-Modernity, the durability and commonness of the world has dissolved into the ineluctable processes of production of consumption. In the era of "junkspace,"<sup>25</sup> there is no question of recovering a durable, common world that could undergird a stable public

realm for action. For Arendt, the modern world of mass society has lost its power to gather, separate and relate men as a mediatory milieu capable of sustaining an authentic public realm.<sup>26</sup> What we now “have” in common is the technological apparatus of capital – joining the biopolitical administration of natural life with the spectacular administration of desire – that effectively constitutes our political reality. Yet the notion of ethical technique brought to light through Arendt’s thought puts the nature of the lived, human sense of reality and the world itself at issue. The political task of architecture is nothing less than to “change the world:” to concretely fabricate the condition of the common itself, however contingent, by which a potential, political reality born of human plurality and diversity can be spatially constituted. For Arendt, it is the world that is actually at stake in thinking about politics in the present condition. For all her emphasis on the power of human action, Arendt ultimately maintains that “at the center of politics lies concern for the world, not for man.”<sup>27</sup> Men and women are always able to actualize their freedom by acting and speaking, however difficult their circumstances may be. Given the loss of the durability of the world, what is at stake, I would argue, is rather the condition of commonness, even if only provisionally stable and durable, in which human action can be meaningful in the sight and presence of others. One cannot change man, according to Arendt, but one can change the constitution of the world, and “hope that the rest will take care of itself.”<sup>28</sup>

If the substance of an authentic human politics of action and speech is undeterminable for Arendt, yet still dependent on a common world, how can architecture address or anticipate this politics according to the notion of an “ethical technique?” How can architecture embody the recognition and acknowledgement of a potential politics, alternative to that of capital, let alone give it shape or orientation? Here, architecture must authorize itself as a discipline, and draw upon its latent philosophic and ethical reasonings to desire, envisage, and make judgments relative to human possibility. Architecture must take up the essentially modern task of envisioning the possibility of a politics that is radically exceptional to that of the techno-spectacular apparatus of capital, while ceding the realization this politics to human action itself. Leatherbarrow writes that architectural design is inherently projective, anticipatory, imaginative, and desiring; its essential role has always been to project “real possibilities,” rather than implement “possible realities.”<sup>29</sup> As a discipline, architecture is thus capable of concretely imagining, eliciting and provoking new forms of commonness that would potentially engender a new politics of action. In so doing, architecture effectively assumes, if indirectly, a decided criticality with respect to given political realities. The possibility of politics then remains a task for architectural making, dependent on projective techniques of envisaging through fabrication; but the substance of a possible politics remains in the domain of human action, for its own sake, and has yet to emerge. This politics remains undeterminable by theory,

let alone by architecture, stemming as it would, according to Arendt, from the essential human freedom to initiate action. Yet architecture cannot envision the possibilities for politics alone: architecture's "critical call" is that of other disciplines as well. Architecture must participate in the collective imagination of a potential politics across all domains of culture.

The prospects for the imminent emergence of an alternative politics in Arendt's terms, whether spontaneous or prepared for in some way by architecture, are far from certain. Yet in reframing its so-called "critical call," architecture is enjoined to raise the very question of politics – human self-realization – in terms other than the apparatus, however tentatively or provisionally. Posing this question anew, on its own authoritative terms as a discipline, could be architecture's most important "critical" achievement. Within the apparatus of capital, any eruption of Arendt's conception of human reality would be unsubsumable, as it would share no common denominator. The forms of such an eruption would emphasize commonness rather than durability, and the ephemerality of occasions, rather than the permanence of boundaries. Through its different modalities of exercising "ethical technique," architecture could aspire to a "durable" critical practice of fabricating the condition of commonness. This practice would finally depend, as Leatherbarrow points out, on the self-reflexive philosophical reasoning of architectural theory to comprehend architecture in relation to other disciplines and cultural discourses.<sup>30</sup> In so doing, architecture will be able to preserve itself as a "critical" discipline, and ultimately able to account for the commonness of the world that it constructs.

## Notes

1. On "spatial agency," see Nishat Awan, Tatjana Schneider and Jeremy Till, *Spatial Agency: Other Ways of Doing Architecture* (Abingdon, [UK]: Routledge, 2011). My use of "critical" is intended to encompass the broad range of architectural work and thinking that has attempted to transform social, cultural and political conditions under capitalism throughout the twentieth century, generally on the basis of Marxist analysis and theory.
2. Walter Benjamin, "The Author as Producer," in *Reflections: Essays, Aphorisms, Autobiographical Writings*, ed. Peter Demetz, trans. E. F. N. Jephcott (New York: Schocken Books, 2007), 222-23, 233.
3. *Ibid.*, 231, 233.
4. *Ibid.*, 230.
5. My use of the term "apparatus" is intended to connote the broad conception of the "apparatus of capital" in Late-Modernity, comprehending the primary aspects of Guy Debord's analysis of spectacle, *The Society of the Spectacle* (New York: Zone Books, 1995); Michel Foucault's theory of power and discipline, particularly in *Discipline and Punish: The Birth of the Prison* (New York: Pantheon Books, 1977); and Giorgio Agamben's theory of bio-politics in *Homo Sacer: Sovereign Power and Bare Life* (Stanford, CA: Stanford University Press, 1998), and his concept of "the apparatus" in "What is an Apparatus?," *What is an Apparatus?* and *Other Essays*, trans. David Kishick and Stefan Pedatella (Stanford, CA: Stanford University Press, 2009).
6. Hannah Arendt, *The Human Condition* (Chicago: University of Chicago Press, 1958).
7. Hannah Arendt, *The Human Condition*, 2<sup>nd</sup> ed. (Chicago: University of Chicago Press, 1998), 57. Subsequent citations refer to this edition.
8. Hannah Arendt, "Introduction into Politics," in *The Promise of Politics*, ed. Jerome Kohn (New York: Schocken Books, 2005), 119.

9. Ibid., 170.
10. Arendt, *The Human Condition*, 2<sup>nd</sup> ed., 52.
11. Ibid., 173
12. Ibid., 55. On appearance as the quality of “shining forth,” (see 226n65).
13. Ibid., 57-8.
14. Ibid., 57.
15. Ibid., 220-30.
16. Ibid., 227-30.
17. Ibid., 153-59.
18. For Kenneth Frampton, the question of architecture recovering a capacity to represent “collective value” is “moot,” absent an authentic public realm in Arendt’s specifically political terms. See Kenneth Frampton, “The Status of Man and the Status of his Objects,” in *Labour, Work and Architecture* (London: Phaidon Press, 2002), 40. The political philosopher Ronald Beiner argues, however, that architecture has the potential to “redeem” irresolvable problems in Arendt’s political theory by creating and strengthening the capacity of public places to expressively embody long and deeply held community values. He proposes that architectural experience could function as a mode of citizenship, enacted through the inhabitation of shared spaces. See Ronald Beiner, “Our Relationship to Architecture as a Mode of Shared Citizenship: Some Arendtian Thoughts,” *Techné: Research in Philosophy and Technology* 9, no.1 (Fall 2005), <https://scholar.lib.vt.edu/ejournals/SPT/v9n1/beiner.html>. Hans Teerds argues that Arendt’s specifically political conception of common sense, grounded in the *sensus communis* that reconciles different sense perceptions into an objective, common world, can provide a basis for architecture to recover the common dimension of public experience. See Hans Teerds, “Constructing Culture: A Political Perspective,” *Architecture and Culture* 2, no. 2 (2014): 213-23, doi:10.2752/205078214X14030008752542.
19. David Leatherbarrow, “Architecture Is Its Own Discipline,” in *The Discipline of Architecture*, ed. Andrzej Piotrowski and Julia W. Robinson (Minneapolis, MN: University of Minnesota Press, 2001), 86, <http://site.ebrary.com/id/10151240>.
20. Ibid., 86, 95.
21. Ibid., 84.
22. Arendt, “Introduction into Politics,” 168. See also Hannah Arendt, “The Crisis in Culture,” in *Between Past and Future: Eight Exercises in Political Thought* (London: Penguin Books, 2006), 218.
23. Arendt, *The Human Condition*, 57-8, 208-9. See also Arendt, “The Crisis in Culture,” 218. For Arendt’s elaboration of taste as a judging, political sense in relation to commonness and common sense, drawing upon Immanuel Kant’s critique of aesthetic judgment, see “The Crisis in Culture,” 216-21, and especially Hannah Arendt, *Lectures on Kant’s Political Philosophy*, ed. Ronald Beiner (Chicago: University of Chicago Press, 1982).
24. Leatherbarrow, “Architecture Is Its Own Discipline,” 84-5.
25. Rem Koolhaas, “Junkspace,” *A+U: OMA@work 1972-2000*, special issue, ed. Nobuyuki Yoshida (Tokyo: A+U Publishing, May 2000): 16-24.
26. Arendt *The Human Condition*, 53.
27. Arendt, “Introduction into Politics,” 106.
28. Ibid.
29. Leatherbarrow, “Architecture Is Its Own Discipline,” 102, citing Dalibor Vesely.
30. Ibid., 95.

## Acknowledgements

This essay originated as a paper presented on a panel led by Dr. Maurizio Sabini entitled "Critical Call" that was held at the 104<sup>th</sup> Annual Meeting of the Association of Collegiate Schools of Architecture in Seattle, WA, on March 19, 2016. I thank Dr. Sabini for the opportunity to present this work, as well as for his thoughtful reflections upon it. This essay is a revised version of the paper to be published in the *104<sup>th</sup> ACSA Annual Meeting Proceedings, Shaping New Knowledges* (Washington D.C.: ACSA Press, 2016), and is republished herein courtesy of the ACSA. The research for this paper was conducted in association with the graduate architectural theory seminars that I have taught at the Azrieli School of Architecture and Urbanism at Carleton University since 2012. I wish to thank Carleton University for supporting the dissemination of this research through the CUPE 4600 Professional Development Fund.

**Paul Holmquist**, Ph.D., teaches architectural design and theory at the Azrieli School of Architecture and Urbanism at Carleton University with an emphasis on questions of politics and technology. He has also taught at McGill University, Kansas State University and SUNY College of Technology at Alfred. Paul received his doctorate in architectural history and theory from McGill, for which he examined Claude-Nicolas Ledoux's architectural theory in relation to the political philosophy of Jean-Jacques Rousseau. His research has been recently published in *Chora 7: Intervals in the Philosophy of Architecture*, edited by Alberto Pérez-Gómez and Stephen Parcell (McGill/Queens, 2016).  
E-mail: [paul.holmquist@carleton.ca](mailto:paul.holmquist@carleton.ca)



# Planning Criticism: Operative Contingencies in the Project of the Italian Tendenza

THEORY

Pasquale De Paola

*ABSTRACT - In order to re-assess architecture's critical role and redefine the disciplinary domain of its production, this essay looks beyond forms of technocratic utopias, while it historically analyzes operative theoretical contingencies relative to the "project" of the Italian Tendenza, which is examined as an historical form of ideological criticism of the discipline of architecture and its contentious relationship between intellectual and capitalistic production. Particularly, this essay explores the ideological and historiographical production of the 1960s and 1970s. This was when the term Rationalism and its theoretical body of work acquired renewed prestige replacing the ephemeral aesthetic of the Modern Movement with a grounded and critical discourse based on Aldo Rossi's and Massimo Scolari's position relative to the need for architecture to re-affirm its own statute, in order to free itself from any form of technocratic utopia. While questions of interdisciplinarity remain essential toward an understanding of future architectural contingencies, it is only by questioning the status quo of architecture and re-examining its past that a new sense of criticality can be generated.*

---

**Keywords:** Critical Call, Aldo Rossi, Massimo Scolari, Manfredo Tafuri, Tendenza

---

"The critical act will consist of a recomposition of the fragments once they are historicized: in their remontage." (Manfredo Tafuri) <sup>1</sup>

## THE WILL TO THE CRITICAL

Contemporary architectural production seems to be generally defined by the recent fascination with speculative technologies and interdisciplinary processes. However, it has also become evident that its sense of criticality appears to lack the discursive specificity or a tendency that sees architecture as a form of internal knowledge characterized by its inherent will to the critical. It also re-assesses the importance and centrality of the architectural artifact as the point of reference for a reestablished sense of criticality. Accordingly, the opening position of this essay is that rather than addressing what Georg Simmel called “overstimulating processes of technical rationalization,”<sup>2</sup> it is time to shift our attention to the architectural work and critically historicize its conceptual framework by defining its internal domain.

“The most theoretically aware of contemporary architects have rejected what was the most important operative concept of architecture theory at the moment of its re-foundation in the 1970s: namely, the aspiration toward autonomous forms and techniques to create and measure the distance between a resistant, critical practice and the degraded languages and ideologies of consumer culture that surround it.”  
(K. Michael Hays)<sup>3</sup>

Threatened by technological optimization, the concept of autonomy appears to reaffirm architecture’s own disciplinary resistance whose ultimate goal is to recapture its critical role within the contemporary.<sup>4</sup> This essay strives to outline a more historical model of critical investigation that sees architecture as a comprehensive design practice characterized by internal ideological and theoretical resistance. Most importantly, this understanding implies the existence of a condition, which is emphatically defined by the Kantian conviction that the critical represents “knowledge within knowledge,” a position that, in Robert Somol’s words, “turns up attention causing an awareness, a self-reflective search for meaning, as in a formalism or writings.”<sup>5</sup> Indeed, the critical matters primarily because it offers an opportunity to resist within a disciplinary field that appears to be expanding and stretching to the point of non-return. While questions of interdisciplinarity remain essential toward an understanding of future architectural contingencies, it is only by questioning the status quo of architecture and re-examining its past that a new sense of criticality can be generated.

In order to re-assess architecture’s critical role and redefine the disciplinary domain of its production, this essay looks beyond forms of technocratic utopias, while it historically analyzes operative theoretical contingencies relative to the project of the Italian *Tendenza*. This movement is examined as an historical form of ideological criticism of

the discipline of architecture and its contentious relationship between intellectual and capitalistic production. Particularly, this essay explores the ideological and historiographical production of the 1960s and 1970s. This was when the term Rationalism and its theoretical body of work acquired renewed prestige replacing the ephemeral aesthetic of the Modern Movement with a grounded and critical discourse based on Aldo Rossi's and Massimo Scolari's declaration that "Architecture needed to return to the affirmation of its own statute"<sup>6</sup> in order to free itself from any form of technocratic utopia. Yet, before familiarizing with the ideological project of *Tendenza*, I believe that it is opportune to address Manfredo Tafuri's operative provocations, whom in a labyrinthine way "planned" *Tendenza's* critical project as a tendentious response to the sterile production of Modernism and its apathetic fascination with capitalistic modes of architectural production.

## PLANNING CRITICISM

"The scandal of Stirling's architecture is constituted by man, as he is forced to ricochet between architecture as pure object and the redundancy of hermeneutic messages, deranged by a rhetoric of interruption. The architecture of Aldo Rossi eliminates such a scandal. Its reliance upon form excludes all justifications from outside. The distinctive features of architecture are inserted into a world of rigorously selected signs, within which the law of exclusion dominates." (Manfredo Tafuri)<sup>7</sup>

Prolific and equally provocative for his cynical views on architecture, Manfredo Tafuri has to be considered the most prominent and equally nihilistic mastermind of a critical attitude that saw history as a project dictated by ideological specificity and disciplinary autonomy. This is particularly evident in his introduction to *The Sphere and the Labyrinth* (1980), in which Tafuri analyzes the peculiarities of "the historical project" intended, as Marco Biraghi pointed out,<sup>8</sup> as a critical examination and understanding of history as a "subjectively designed" arrangement of events and facts underlined by breaking points that meant to disrupt the ordinariness of architecture. While extremely dense and convoluted to the point of compromising the readability of the text itself, Tafuri examines the contingent relationship between the architect and the historian as well as their shared operative field of action. Yet, while the architect pragmatically objectified the past and present via the designed, the historian had to stimulate and provoke a reaction contingent to its contextual framework. Tafuri accomplished that by constructing a highly rhetorical narrative characterized by critical points of rupture, which allowed him to discuss history's cyclical sense of crisis. Within this scheme, it is the critical that generates the crisis, and consequently, it is the historian's responsibility to provide a solution, a tendentious one, which is critically and contextually derived from the crisis itself. How

do we establish this operative sense of criticality? In order to answer this question, it is important to reiterate Tafuri's concept of "Operative Criticism":

"What is normally meant by 'operative criticism' is an analysis of architecture (or the arts in general) that, instead of an abstract survey, has as its objective the planning of a precise poetical tendency, anticipated in its structures and derived from historical analyses programmatically distorted and finalized."<sup>9</sup>

"Operative Criticism," which originates from Critical Theory, is defined as the meeting point between history and design. It is criticism that comes from the architect or the historian in an attempt to manifest a vision or make a change. Rather than developing a linear historical survey, operative criticism distorts history creating multiple layers of narratives with the intention of projecting tendencies forward out the past. The final result of criticism is the artifact generated out of the study of existing architecture.

Therefore, criticism moves from the media of description to the medium of architecture itself where history becomes infected with a sort of critical subjectivity that ends up influencing future architectural production. It is not a mere recollection of events all chronological spaced, but it becomes a new critical artifact that redefines the positioning of a certain tendency and its level of artistic and moral productivity.<sup>10</sup> In order to expose this operative sense of criticality, in *Theories and Histories of Architecture* (1968), Tafuri discusses the historiographical meaning of the work of Giovanni Pietro Bellori and his critical rejection of Baroque as a prime example of operative criticality applied to change future artistic contingencies. However, the most important component of such a methodology finds its own justification within the critical nature of the outcomes presented, which create, in Tafuri's words, a "ready-made judgment" of value for analytical rigor.<sup>11</sup>

It is a new kind of criticism that essentially departs from the objective endorsing the subjective. Why is this tendentious model still relevant? The answer has to be found in its constructed narrative that, via a critical manifestation of the historiography of the present, proposes an architecture characterized by "unprejudiced experimentalism." It is a new sense of criticality that plans its own future expressions by being critical of both the past and present. This is particularly evident in Manfredo Tafuri's *History of Italian Architecture, 1944-1985*:

"After the end of the Second World War, architects who were obliged to respond to the new Italian reality were faced with a difficult dialectic between knowledge and action – difficult, because of the contradictory foundations underlying the tradition of the discipline, but also because of the many levels imposed on such knowledge. This was all the more true given that most

competent members of the profession took it for granted that there could be no knowledge divorced from action: an encounter with active politics seemed imperative.”<sup>12</sup>

Tafuri's description is unescapably gloomy: Italian architecture had ended up falling victim of a technocratic process characterized by academic and professional arrivism, which had consequently turned architecture into a deeply rhetorical discipline. However, it is in the work of Aldo Rossi, Giorgio Grassi and Massimo Scolari, that Tafuri calculatedly finds the answers to this crisis; a silent and isolationistic position that critically forces architecture to look internally in order to survive.<sup>13</sup> More specifically, Tafuri recognizes the intrinsic criticality of Rossi's and Grassi's methodology based on the merging of architectural criticism with the criticism of the city through a catalog of autonomous principles, which, according to Tafuri, are clearly and formally expressed in the work of the two Milanese architects.

Thus, to re-examine architecture criticality and its disciplinary domain, the rest of this essay investigates the development, evolution, and persistent presence of a theoretical and critical attitude identifiable in the work produced by Tendenza, an heterogeneous group of Italian architects close to Aldo Rossi and Massimo Scolari, and which proposed an autonomous process of urban and typological internalization as juxtaposition to the modernist homologation of a universal language “sent from above.”<sup>14</sup>

#### CONTRA MODERNISM: THE PROJECT OF TENDENZA

Tendenza, originally formulated as a methodological response to the reductive aesthetics of Modernism and the International Style, is usually associated to a Milanese and Venetian group particularly close to Aldo Rossi, Massimo Scolari and Carlo Aymonino, and which also included other members who had a strong influence in other Italian circles such as Antonio Monestiroli, Salvatore Bisogni, Uberto Siola, Gianni Braghieri, Franco Raggi, Ezio Bonfanti, and Daniele Vitale. While looking at its linguistic roots, the word *tendenza* means “an attitudinal predisposition to act and behave in a certain ideological way;”<sup>15</sup> the term itself implies a well-defined programmatic orientation driven by a common idea or methodological practice. This definition certainly provides the basic underlying principles of this critical discourse, which was characterized by an autonomous and disciplinary impulse shared by many individuals.

Also labeled as Neo-Rationalism, the Italian Tendenza was never a homogeneous movement that produced a relatively similar architectural style (as the term Neo-Rationalism might erroneously imply); on the contrary, Tendenza listed a very heterogeneous number of practitioners and academics that shared a similar interest toward an understanding

of architecture and its urban methodological investigation. Indeed, Tendenza, was understood as praxis indicative of a certain disciplinary disposition elucidated by an autonomous methodology based on a typological classification and the practical application of an established building logic. While formally diverse, this tendency was ideologically characterized by a return to the traditional rationality of Modernist architects, such as Ludwig Hilberseimer, Adolf Behne, Hans Schmidt, and Adolf Loos. Tendenza's production exemplified a method of disciplinary inquiry that prioritized the importance of the idea over the image and the integration of both criticism and design. Architecture was to be, in Scolari's words, a *fenomeno autonomo*, a process that required disciplinary refounding while rejecting interdisciplinary remedies as well as political, economic, social and technological contaminations.<sup>16</sup>

Particularly, the project of Tendenza and its typological and rational framework appears to offer an interesting case study, which emphasized a design practice based on a critical and typo-morphological methodology that sought resistance through autonomy (Fig. 1). Therefore, in order to investigate the critical mechanisms relative to this self-reflective attitude, the conclusive part of this essay analyzes the theoretical work of Aldo Rossi and Massimo Scolari, two of the most proactive leaders of a tendency, which pursued the critical through the assimilation of "architecture as an instrument of culture" and "architecture as autonomous form."<sup>17</sup>

## TOWARD A TYPOLOGICAL CRITICISM

"The thread of Ariadne with which Rossi weaves his typological research does not lead to the 're-establishment of the discipline,' but rather to its dissolution, thereby confirming in extremis the tragic recognition of Georg Simmel and Gyorgy Lukacs: 'a form that preserves and is open to life, does not occur.'"  
(Manfredo Tafuri)<sup>18</sup>

With the publication of *The Architecture of the City* in 1966, Aldo Rossi launched a redefinition of the discipline grounded into an autonomous understanding of architecture and the formation of the modern European city. Rossi asserted the project of working on a technical survey of the city as an artifact, setting up architecture itself as the measure of architecture and explicating its genesis through its own principles. In its fragmented nature, the city is both an architectural artifact and a collection of *fatti urbani*, ("urban artifacts," as in the English translation of the book, or *faits urbains* as indicated by Marcel Poëte in his *An Introduction to Urbanism: The Historical City*<sup>19</sup>), which present their own particular formal expression. Similarly to Manfredo Tafuri's historical project, Rossi places more emphasis on particular points of rupture which he calls *fatti urbani*, and that accordingly embody generative components that validate typological



Figure 1. *La Tendenza: Italian Architectures 1965-1985*, Centre Pompidou, Paris (June 20 - September 10, 2012). © Philippe Migeat/Centre Pompidou.

and morphological variations. The city, as an accumulation of *fatti urbani*, can be formally and typologically analyzed via redrawing its parts in order to dissect anomalies within its plan. However, Rossi's typological classification is not aimed at generalizing the process of urban growth and redesigning of the city; instead it recognizes the presence of particular typological signifiers that link past and present, life and society, and which revolve around monuments.<sup>20</sup>

The structure of those *fatti urbani* has to be precisely identified in order to avoid a generic assessment based on simplistic conclusions. Rossi's observation is essentially defined by the study of form as it relates to those urban events comprehensively analyzed in their social, political, and civic connotations, and which are capable of generating form. The functional individuality of the architectural object is not as important as its morphological and formal connotation, which appears to become more demarcated at the city scale exposing emergent forms and specific building types that seem to share significant artistic and civic connotations (Fig. 2). Typology, as the study of types that can't be reduced anymore, becomes the critical factor that exposes the singularity of architecture. Within this framework, the architect is subjectively responsible for a critical representation of the city that proposes planning decisions based on a more morphologically contextual formal reorganization.

While identifying specific permanent points, Rossi uses history and its critical narrative as a way to underline how particular events have redefined the development and formal layout of the city. The presence of particular monumental singularities is often related to significant events in time. The events can be political, social, religious, and they can also be associated to specific rituals of iconography. Those significant events are usually distinguishable by monuments, which tend to guide the principles of urban growth. Yet, in order to be able to understand the relationship between primary urban attractors and human collectiveness, we have to recognize the role of history in its social connotations. According to Rossi, the history of architecture is not only the history of stylistic progression, but it is also the validation of chronicles of civic and social interactions, consolidated overtime by a collective mnemonic will. Reacting against what he calls “naïve functionalism,”<sup>21</sup> Rossi sets the historical production of architecture as the measure of architecture, a system that understands the presence of archetypes, which, in their singularity, contain the information necessary to generate form. Those archetypes have a precise internal structure, which is both civic and collective; thus, in order to rationalize this building logic, we have to understand the city as a comprehensive repository of architectures (or types) systematically fragmented in order to identify and provide a critical recognition, definition, and analysis of particular generative events.

Widely published and analyzed, *The Architecture of the City* has been hardly evaluated as a comprehensive compendium of typological criticism, written with the primary intention to celebrate the historiography of early Rationalism, while uncovering typological laws of architecture production that critically define both the structure of the city as well as its monumental artifacts.<sup>22</sup> Indeed, the necessity to apply a logical process to a field so complex was a peculiarity necessary to the formation of a methodological discourse, a tendency, critical of its past but also surprisingly optimistic about its future. For Rossi, a good architect is the one who continuously tests and validates his/her theoretical work by producing buildings according to specific operative and critical principles, merging architectural criticism with the criticism of the city. This obsessive practice is essentially at the basis of what Rossi calls *Razionalismo Esaltato*,<sup>23</sup> a type of rationality that is extremely fanatic in its obsessive search for an autonomous and rational logic, critical and aware of realistic problematics.

## ARCHITECTURE AS COGNITIVE RESEARCH

“For Tendenza, architecture is a cognitive process that in and of itself, in the acknowledgement of its own autonomy, is today necessitating a refounding of the discipline; that refuses interdisciplinary solutions to its own crisis; that does not pursue and immerse itself in political, economic, social, and technological

events only to mask its own creative and formal sterility, but rather desires to understand them so as to be able to intervene in them with lucidity not to determine them, but not to be subordinate to them either.” (K. Michael Hays) <sup>24</sup>

Predominantly recognized for his work and research on the methods of architectural representation, <sup>25</sup> Massimo Scolari’s theoretical work offers a peculiar understanding of autonomy as a “cognitive process” characterized by precise disciplinary and epistemic principles. More precisely, Scolari, attempting to set up a theory of architectural knowledge, looks at the role of history as a container of situations and failures that necessitates to be rationally and internally examined in order to provide realistic responses. Indeed, it is a reasoning process that refuses interdisciplinary solutions to its own crisis. <sup>26</sup>

Most importantly, Scolari supports the distancing from utopian radicalism, which he sees formally and ideologically expressed in the work of Superstudio, Archizoom, UFO, and Gruppo 9999, and that had to be primarily blamed (largely thanks to Tafuri’s operative interpretation) for its negative connotation of historical analysis. This characteristic certainly

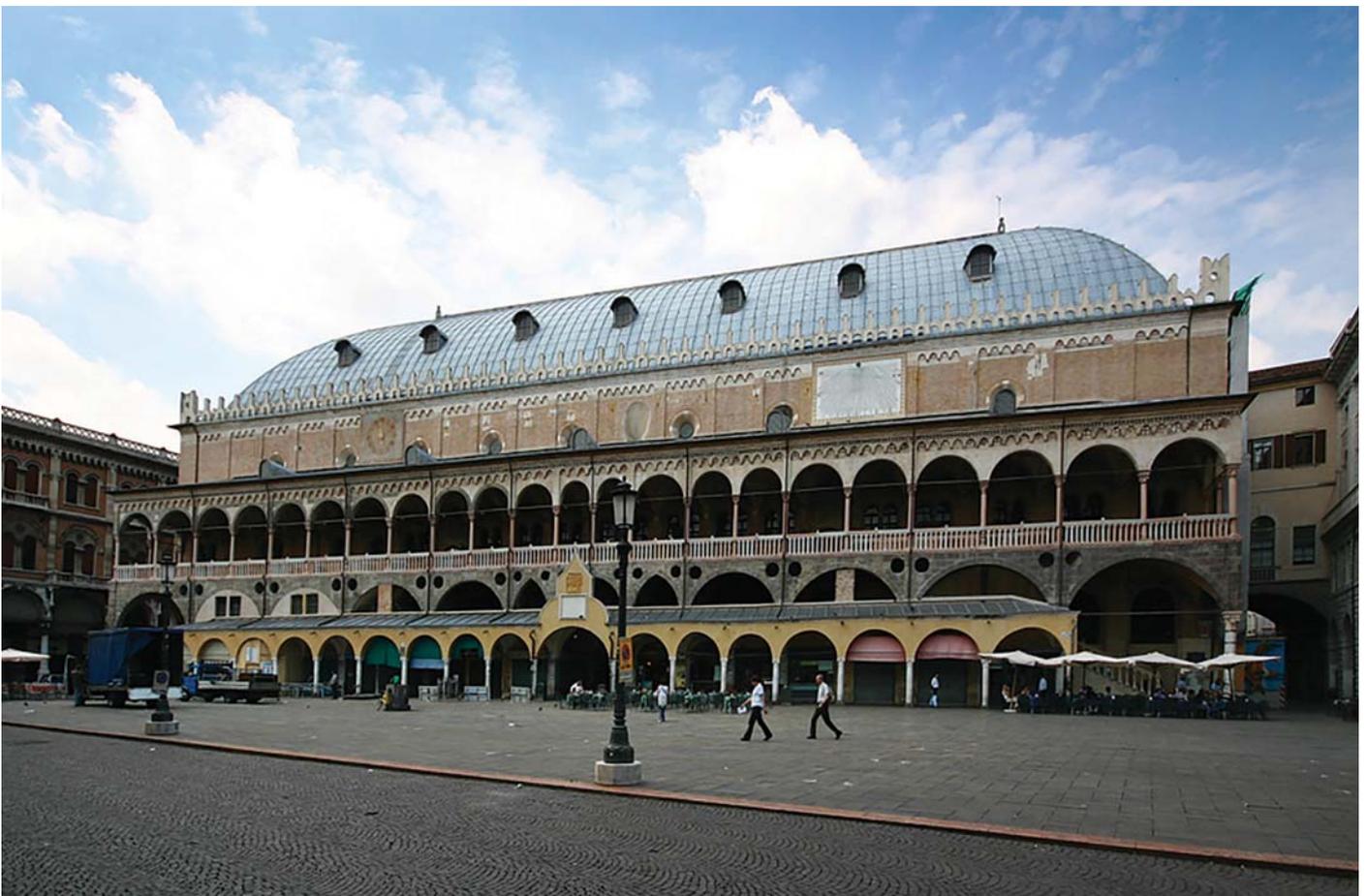


Figure 2. Palazzo della Ragione and Piazza delle Erbe, Padua (Italy). © Stefan Bauer.

isolated the radicals' work from the reality of things, proposing utopias as a non-feasible solution.<sup>27</sup> Scolari explains that groups like Superstudio or Archizoom pursued purely cultural prefigurations rather than a grounded approach based on disciplinary modalities, thus reducing architectural production to a pseudo-metaphor.

Architecture, in the end, had to reflect on its own internally generated laws or norms and it had to express and display itself through a reactive architectural representation based on a morphological and typological analysis.

Scolari recognizes this critical attitude in what he calls *Tendenza*, a rather heterogeneous group of architects interested in cognitive methods that offered a rather critical analysis of the city intended as a collection of urban types and monumental references. Scolari states that architecture has to be perceived as a mental process, underlined by the existence of an autonomous framework characterized by its own rules, history, and forms.<sup>28</sup>

Accordingly, the importance of the masters of early Modernism is critically framed by looking at the methodological work of Ernesto Nathan Rogers, Giuseppe Samoná and Ludovico Quaroni. Specifically, they stressed the importance of urban analysis as an epistemic process of architectural discovery as well as the significance of historical continuity as a way to critically project forward the tradition of early Modernism. Most importantly, Scolari identifies the significance of cognitive research via disciplinary autonomy as the only possible way to isolate generic forms of academism and architectural professionalism, which historically seemed to deny architecture's own internal and intellectual distinctiveness. To eradicate those two problems, Scolari proposes a comprehensive and methodical refounding of the discipline based on a critical approach that refuses any contamination or political and technocratic intrusion.<sup>29</sup>

The beginning of this tendency is particularly identifiable in the early work of Ernesto Rogers at *Casabella*, and Giuseppe Samoná at the IUAV (Istituto Universitario di Architettura di Venezia – the Venice school of architecture), who had advocated a return to architecture's own analytical and cognitive processes, a position also previously emphasized by both Franco Albini and Piero Bottoni. Within this framework (and according to Scolari), Aldo Rossi, Guido Canella, and Giorgio Grassi appear to be the only architects capable of developing a critical understanding of the relationship between analysis and design, residential typology and urban morphology.

Similarly to Rossi's *The Architecture of the City*, Scolari proposes an architectural response that emphasizes the logic of types and typological thinking as an epistemic possibility for the new. Interestingly enough, for Scolari, the only way to avoid "secular functionalism" and "extreme organicism" is the return to the basic rules of architecture, which he

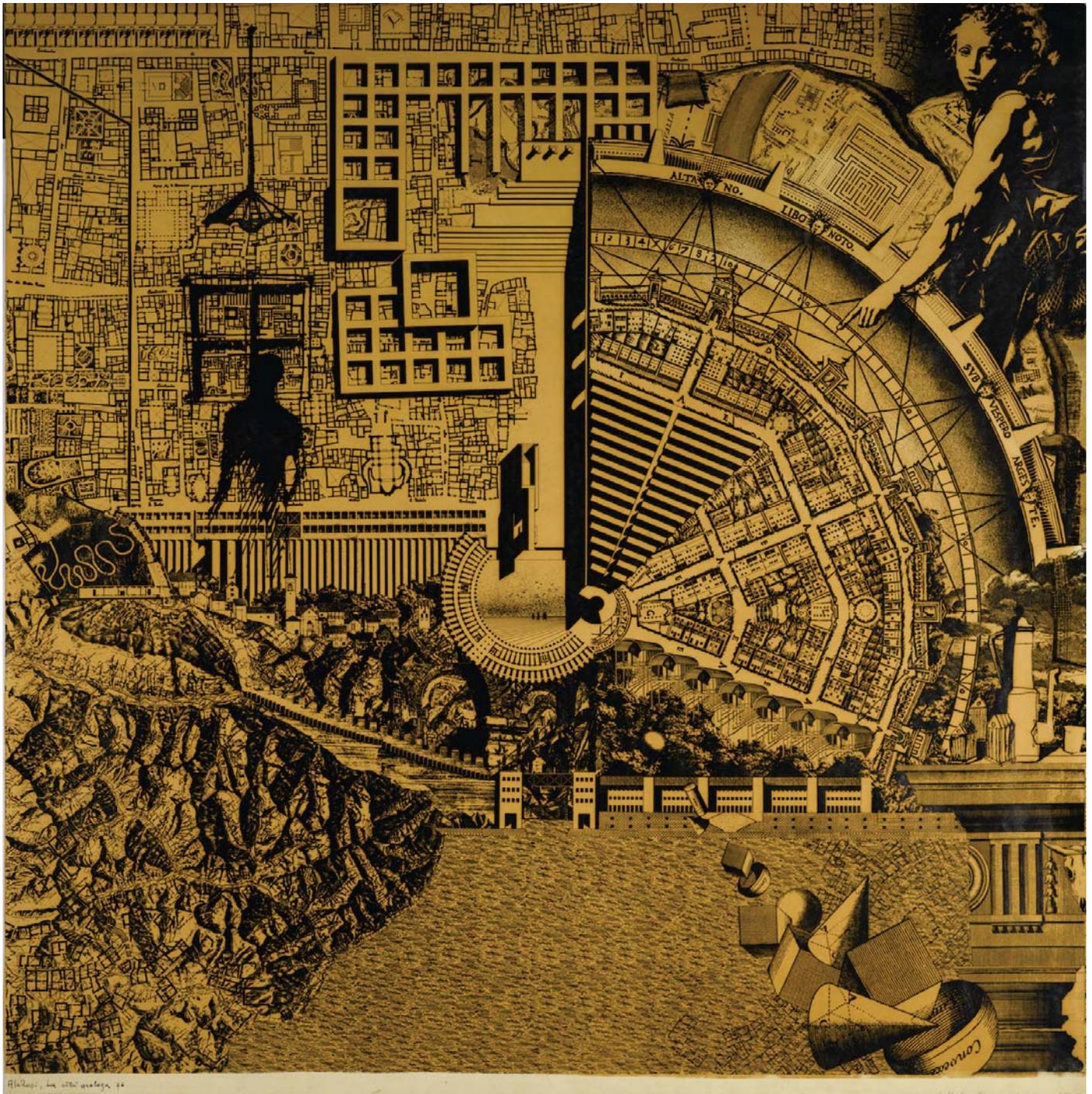


Figure 3. Aldo Rossi, with Fabio Reinhart, Bruno Reichlin and Eraldo Consolascio, *La città analoga*, collage, various materials, 200 cm x 200 cm (6' 6" x 6' 6"), 1976. Collezione privata.  
© Eredi Aldo Rossi, courtesy Fondazione Aldo Rossi.

explicitly recognizes into the early work of Aldo Rossi.<sup>30</sup> In fact, Rossi identifies the presence of types and models that reappear through history and that also modify the structure of the city. This progression was clearly addressed in the collage *La città analoga* (1976), where Rossi exposed the primary archetypal essence of monuments and their role on the formation and consolidation of what he called *fatti urbani* (Fig. 3).<sup>31</sup> Scolari uses this very same framework as a way to set up the formal basis of a new architectural discourse based on cognitive continuity, which is accomplished through the recognition of particular building types that link past and present, while avoiding any formal and stylistic contamination.

Architecture's relation to history is also explained by its urban and contextual specificity defined by how particular artifacts underline the presence of a methodological monumentality. This is based on the inner necessity for an artifact to emerge as a symbol of relevant urban phenomena. Accordingly, history, type, and monuments are recognized as the most important cognitive elements that define the critical nature of the design process. Thus, in order to develop a new design sensibility, Scolari proposes a relatively new theory of architectural production, which is not only mediated by historicity and authenticity, but it is also framed by a critical method of rational analysis that emphasizes both the analytical and morphological importance of its parts and fragments.<sup>32</sup>

## CONCLUSIONS

The distinctive sense of criticality evident in the work of Rossi and Scolari seems to validate the initial postulates that sought architecture as a form of internal knowledge characterized by a will to be critical, while re-assessing the importance and centrality of the architectural work as the focal object of theoretical discourse. *Tendenza* and particularly the work and guidelines set by both Rossi and Scolari underlined the establishment of an architectural practice based on the operative recurrence of the historicity of the discipline and its autonomous framework in order to redefine the methodological bases of architecture. This was accomplished by proposing a consistent rational attitude based on the relationship between analysis and design, architecture and ideology, rationality and invention.<sup>33</sup> Hence, a tendency was established when description, manipulation, expression, and representation of knowledge were cohesively integrated in order to generate a discourse based on those critical principles of rationality and logic that seem to underline the architectural process and its formative and generative production.

Methodologically speaking, *Tendenza's* framework proposed a critical examination of the city as an artifact in transition characterized by particular typological variations, which had to be expressed by redrawing its internal and distributive parts. Interestingly enough, this process

was identified by a critical agenda that pursued the internalization of architecture as an autonomous discourse characterized by the inescapable accumulation of forms, solutions and building types. Accordingly, Tendenza's approach freed the urban artifact of any historical or formal ambiguity keeping it timeless and authentic. Indeed, it is only by questioning the historicity of architecture that a new sense of criticality can be generated. Fundamentally critical in its ideological nature, the project of Tendenza assumed specific significance in generating and consolidating a new autonomous metanarrative that aimed to challenge and replace the fading objectivist agenda of Modernism. While Rossi will eventually replace this autonomous framework with a more melancholic and object-derived method of analysis based on the axiom "*I don't invent, I remember*,"<sup>34</sup> Tendenza's legacy has to be found in the evident expression of its will to the critical. Without this internal condition, architecture cannot progress.

## Notes

1. Manfredo Tafuri, *The Sphere and the Labyrinth: Avant-Gardes and Architecture from Piranesi to the 1970s*, trans. Pellegrino d'Acerno and Robert Connolly (Cambridge MA, USA: The MIT Press, 1995), 15; Italian or. ed. *La sfera e il labirinto: Avanguardie e architettura da Piranesi agli anni '70* (Turin, It.: Einaudi 1980).
2. Georg Simmel, "The Metropolis and the Mental Life," in *The Sociology of Georg Simmel*, ed. Kurt Wolff, trans. H. H. Gerth with C. Wright Mills (New York: Macmillan, 1950), 413; German or. ed. *Die Großstädte und das Geistesleben*, 1903.
3. K. Michael Hays, "Prolegomenon for a Study Linking the Advanced Architecture of the Present to That of the 1970s through Ideologies of Media, the Experience of Cities in Transition, and the Ongoing Effects of Reification," *Perspecta*, vol. 32, (2001): 101.
4. See *ibid*, 102.
5. Robert Somol, as quoted by Peter Eisenman in "Autonomy and the Will to the Critical," *Assemblage*, no. 41 (April 2000): 90.
6. K. Michael Hays, *Architecture Theory since 1968* (Cambridge MA, USA: The MIT Press, 2000), 124.
7. Tafuri, *The Sphere and the Labyrinth*, 273.
8. Marco Biraghi, *Project of Crisis: Manfredo Tafuri and Contemporary Architecture*, (Cambridge: The MIT Press, 2013), 13.
9. Manfredo Tafuri, *Theories and History of Architecture*. (New York: Harper & Row, 1980), 141; English first ed., trans. G. Verrecchia (London: Granada, 1976; Italian or. ed. *Teorie e storia dell'architettura* (Bari, It.: Laterza, 1968).
10. See Panayotis Tournikiotis, *The Historiography of Modern Architecture* (Cambridge MA, USA: The MIT Press, 1999), 214.
11. Tafuri, *Theories and History*, 145.
12. Manfredo Tafuri, *History of Italian Architecture: 1944-1985*, trans. Jessica Levine (Cambridge MA, USA: The MIT Press, 1990), 3; or. Italian ed. *Storia dell'architettura italiana 1944-1985* (Turin, It.: Einaudi, 1986).
13. See *ibid*, 136.
14. Bruno Zevi, *The Modern Language of Architecture* (Seattle: University of Washington Press, 1978), 6; Italian or. ed. *Il linguaggio moderno dell'architettura* (Turin, It.: Einaudi, 1973).
15. Dictionary of Italian language, Garzanti ed.: "Tendenza."
16. See Hays, *Architecture Theory Since 1968*, 124. This excerpt was also published in Aldo Rossi, Ezio Bonfanti, *Architettura Razionale*, (Milan: Franco Angeli, 1973), 153-188. "*Fenomeno autonomo*" literally means "autonomous phenomenon."
17. Hays, "Prolegomenon ....": 103.

18. Manfredo Tafuri, *L'Architecture dans le Boudoir: the Language of Criticism and the Criticism of Language*, *Opposition*, 3 (1974): 56. Also in K. Michael Hays, *Architecture Theory Since 1968*, 155.
19. Marcel Poëte, *Introduction à l'urbanisme. L'évolution des villes, la leçon de l'antiquité* (Paris: Boivin & Cie, 1929).
20. See Aldo Rossi, *L'architettura della città*, (Milan: Città Studi, 1978), 35-36; or. ed. (Padua, It.: Marsilio, 1966); English ed., trans. Diane Ghirardo and Joan Ockman (Cambridge MA, USA: The MIT Press, 1982).
21. See *ibid.*, 46.
22. See Tafuri, *Theories and History*, 158.
23. Aldo Rossi, *Scritti scelti sull'architettura e la città, 1956-1972*, ed. Rosaldo Bonicalzi (Milan: Città Studi, 1997), 347; or. ed. (Milan: Clup, 1975).
24. Hays, *Architecture Theory Since 1968*, 124. This excerpt was also published in Aldo Rossi, Ezio Bonfanti, *Architettura Razionale*, (Milan: Franco Angeli, 1973), 153-188.
25. See the retrospective *Massimo Scolari: The Representation of Architecture, 1967-2012* held at the Yale School of Architecture in 2012.
26. See Massimo Scolari, "Avanguardia e nuova architettura," in Aldo Rossi and Ezio Bonfanti, *Architettura Razionale*, (Milan: Franco Angeli, 1973), 156.
27. See *ibid.*, 158.
28. See *ibid.*, 131.
29. See Carlo Manzo, "Per un' architettura di tendenza," in *Controspazio*, no. 6 (December, 1973): 95.
30. See Scolari, "Avanguardia e nuova architettura," 170.
31. Aldo Rossi, *L'architettura della città*, (Milan: Città Studi, 1978), 21.
32. See Scolari, 184-85.
33. See Aldo Rossi, "L'obiettivo della nostra ricerca," in *L'analisi urbana e la progettazione architettonica* (Milan: CLUP, 1970), 13-20.
34. Aldo Rossi, as quoted in Germano Celant and Diane Ghirardo, *Aldo Rossi Drawings*, ed. Luca Molinari (Milan: Skira, 2009), 11.

## Acknowledgement

This essay originated as a paper presented on a session called "Critical Call," at the 104<sup>th</sup> Annual Meeting of the Association of Collegiate Schools of Architecture in Seattle, WA, on March 19, 2016. This is a revised version of the paper published in the *104<sup>th</sup> ACSA Annual Meeting Proceedings, Shaping New Knowledges* (Washington D.C.: ACSA Press, 2016).

**Pasquale De Paola**, Ph.D., LEED AP, is the Howard Endowed Professor and Program Chair in the Architecture Program at Louisiana Technological University (Louisiana, USA). Pasquale has also taught at Columbia GSAPP and Texas A&M. Pasquale holds a B.Arch. from LSU and a M.S. in Architecture and Urban Design from Columbia. He also received his Ph.D. from Texas A&M; his dissertation "A Question of Method" examined the methodological framework established by the Italian Tendenza and the Milan Triennale exhibition of 1973. His dissertation was awarded the ARCC King Medal for architectural research in 2011.

Professionally, Pasquale has practiced for Carlo Aymonino in Rome and the Richard Rogers Partnership. His research interests include Italian architectural culture, architectural criticism, history and theory of contemporary architecture, and design methods.

E-mail: pdepaola@latech.edu

# Project Strategies and Evaluation Methods for Contemporary Social Housing

HOUSING

Romina Marvaldi, Elisabetta Pani

*ABSTRACT - The deep social transformations occurred in the last decades have deeply affected the patterns of urban living. In this sense, experimentation on housing plays the dual role of investigation and validation of our hypothesis that residential space should reflect new life-styles. At the beginning of the 21<sup>st</sup> century, social housing represents the main field for experimentation. In the current architectural scenario, many interesting experimentations on contemporary housing can be observed. The approach proposed in this article starts with post-occupancy evaluation of some case-studies extracted from extensive research on European case-studies realized projects. It then analyzes the results of such evaluation to abstract issues concerning different aspects of contemporary living that could be coped at the design level. This method combines spatial and typological research, issues about housing and planning approaches developed by the promoters of the case-studies discussed. Providing quality social housing involves the coordination of multiple actors and synergies.*

---

**Keywords:** social housing, post occupancy evaluation, architecture, housing

---

Fluency<sup>1</sup> is the most appropriate adjective to describe the structure of contemporary society. At this historic moment, every phase of our life expands and includes a multitude of stages. The acceleration imposed by the increased speed of information flows affects the concept of distance,

job opportunities and the relationships between people. At the same time, the mixture of different cultures leads, on the one hand, to the transformation of lifestyles and, on the other, to the search for common values. Ultimately, the return to the sharing economy as a form of cooperation is the sustainable response to the current economic crisis. In the described background, people experience the continuous evolution of their aspirations and needs, which they face mostly through their intelligence and ability to adapt to new situations. The definition of fluency is applicable both to new lifestyles and to different groups of people living together. The latter are the signal of a changing society in which the main social unit is not anymore solely ascribable to the traditional family. Nevertheless, fluency mostly occurs in standardized houses conceived during the first part of the twentieth century and still largely diffused in the contemporary urban residential scene.

The great innovation process that characterized the first decades of the twentieth century started from the International Congresses of Modern Architecture (CIAM),<sup>2</sup> which discussed mass housing among other important issues. The origins of the debate are attributable to the transition towards an industrialized society and the consequent urbanization of a large segment of the population, who urgently required decent houses. Such origins can also be tracked back to a widespread change of values and the outbreak of new needs related to a different economic and environmental climate. The extended public residential estate, built in Italy in the second post-war period and throughout '70s, is mainly the result of the studies on housing models and typology conducted by the likes of Walter Gropius, Alexander Klein, Le Corbusier, Mart Stam, Hans Schmidt, Cornelis van Eesteren, and their dissemination through a standardized production process. Nowadays, the construction market largely offers a miserable reinterpretation of the layout solutions for the minimum dwelling developed at the end of the '20s.

In light of what has been described, re-opening the debate on contemporary housing is therefore necessary. The profound social transformation befallen in the last two decades reveals itself in the multiple variations of living: the residential space should accompany part of the countless stages of our lives and represent the place where individuals and groups can express themselves and realize their desires. In this sense, the experimentation on housing plays the dual role of an investigation and validation tool for the expressed hypothesis and it is essential for the development of the research. At the beginning of this century, Social Housing is again one of the main fields of experimentation for architecture.

Social Housing can be intended as an effective response to the increasing demand of housing, in terms of cost-effective dwellings that are capable of adapting to change and to interpret the several aspects of contemporary living.

Currently, there are many interesting experimentations on contemporary housing, which have never been evaluated against their original set of goals. The analysis of a building, conducted during its use, offers the opportunity to evaluate the level of satisfaction perceived by the inhabitants and their responses to both the dwelling and the urban scale. The described process is essential to the implementation of new housing strategies, which will replace the obsolete typologies currently used. Looking at architecture through the dweller's experience, as Giancarlo De Carlo did for his project in Sesto San Giovanni,<sup>3</sup> introduces, for instance, new considerations on the social function of galleries in housing projects, originally designed for horizontal distribution. Similarly, a study conducted among the inhabitants of the INA-Casa neighborhoods,<sup>4</sup> led to the definition of the ideal home plan. One of the internationally recognized systems for the assessment of buildings is the Post Occupancy Evaluation (POE) method.<sup>5</sup> The following research, investigating the contemporary forms of living, started from the analysis of a range of selected projects and evaluated the achievements of the architects' purposes through an extensive on-site survey which involved the POE method.

The design experimentation attempted by the different architects connects to a set of requests, selected through a preceding accurate analysis conducted on the differentiation of lifestyles and groups of users. The "need-experimental project" system is then evaluated through a questionnaire distributed among the inhabitants in the studied building and according to the Post Occupancy Evaluation method. The questionnaire is adjusted case by case according to different experimental issues. The recording of spontaneous observations made by the dwellers, as well as the examination of social and spatial dynamics, complement the survey. The role played by the inhabitants in experiencing the innovations introduced in the residential space represents the first important phase of a reconciliation process between the architect and the dweller, which rarely occurs in the current project practice and nevertheless is essential for the continuation of the research process. The analysis of the feedbacks contributes to the individuation of the most recent developments in housing experimentation and indicates possible improvements for a successful application of the studied approach in a different context.

#### CASE-STUDIES: CARABANCHEL 17, DONNYBROOK AND UMBRETE

SITE's project for New York, "Highrise of Homes" (1981),<sup>6</sup> generates a utopic image that symbolizes the diffused desire for a house embodying the characteristics of a villa (differentiation, external private areas and intimacy) and the peculiarities of a multi-storey building (security, services and sociability). This theme is infrequent in contemporary architecture, possibly due to the complexity of combining such different requests.



Figure 1. ACM Arquitectos, Carabanchel 17, Madrid, 2009. Courtyard view of the housing block.

The social housing complex Carabanchel 17 in Madrid (2009), designed by ACM Arquitectos responds in part to the listed needs (Fig. 1). Blocks of different colors constitute the apartments, each provided with an external private area, and form a single concrete building organized around an internal courtyard. This project materializes SITE research on the Highrise of Homes, based on Le Corbusier's thoughts on modern urban life, from the Immeuble Villas project to the Plan Obus plan for Algier. However, the investigation conducted among the inhabitants revealed high levels of dissatisfaction towards both the dwellings and the complex. The ostensible failure of the experimentation, which indeed faced an interesting architectural challenge, led to some important reflections for future applications of a similar approach in different conditions. In social housing projects, a number of factors combine and cooperate to offer an adequate response to the future users. A correct evaluation of the different issues involved is fundamental to guarantee the success of the intervention. The individuation of the future beneficiaries (mixed or classified as elderlies, students, families, young couples, etc.), the housing programs (long or short term, rental or sales, rental with option to buy, etc.), the architectural project, the social and urban context and the existing services are some of the main issues that need to be combined.

Especially in Carabanchel 17, due to the introduced innovation regarding differentiation, building materials and external common and private



Figure 2. Carabanchel 17.

areas, the interaction of the different aspects involved was crucial to accomplishing the expectations of the inhabitants. The problems revealed by the questionnaires are not only attributable to the project but also to the planning process. The beneficiary families - identified through a selection procedure among the waiting lists of the Municipality of Madrid - originally submitted applications to the buyers program. The materials chosen for the projects were associated with the idea of a temporary and precarious state, contrasting with the “house-for-life” common aspiration of the traditional family. However, once the family was selected, the rejection would entail the loss of the acquired rights and the entrance into a new process. The same dwellings - allocated to students or young workers for short or medium term rental - would probably achieve a higher degree of satisfaction. The statements of the dwellers do not imply the failure of the experimentation but the absence of the preconditions for its success (Fig. 2).

The methodological approach applied to Carabanchel 17 and to a number of European case-studies has led to the definition of various common research issues about housing. It appears that the higher the satisfaction for the dwelling and the surrounding area, the easier is the identification of the inhabitants with the housing complex. This consideration emerged from a set of questionnaires distributed among the inhabitants of the Donnybrook Quarter, realized in London by Peter Barber Architects Studio (2001-06), and of Umbrete near Seville, Spain (2002-08), designed by

Solinas Serra Architects (SSA). It can be stated that when needs are correctly interpreted, a unique and recognizable image can be perceived as an additional value also in social housing, rather than as an instance of marginalization (Fig. 3) (Fig. 4).

These two interventions differently inflect the transition among private,



Figure 3. Peter Barber Architects Studio, Donnybrook Quarter, London, 2001-06.



Figure 4. Solinas Serra Architects (SSA), Umbrete, Seville (Sp.), 2002-08. (Photo by Jesus Granada, Courtesy of SSA).

semi-private and public space and organize the adjacent external space. In Umbrete, the succession of patios reminds of a sequence of theater wings and leads to the intimate core of a traditional Sevillian domestic space, whereas in Donnybrook the pedestrian area completes the urban scenario with a relational space (Fig. 5), (Fig. 6).



Figure 5. Umbrete. The sequence of inner patios.  
(Photo by Jesus Granada, Courtesy of SSA).



Figure 6. Donnybrook Quarter.  
View from the internal pedestrian path.

In both projects, the inhabitants look at the open area as an additional element, in contrast to the attitude observed among the dwellers of Carabanchel 17, where the small size of the apartments - decided by the promoter (EMVS)<sup>7</sup> - alongside some design qualities, downgraded the terraces to unexploited surfaces subtracted from the house (Fig. 7). Another issue comes from the absence of regulation and management



Figure 7. Carabanchel 17. Every dwelling is provided with a private terrace.

of the common external courtyard, which led to its decline. The same problem was noticed in those situations suffering from the lack of an orientation program and an intervention of the social housing manager<sup>8</sup> aimed at facilitating cooperation and joint regulation.

## CONCLUSIONS

A residential building can be said to respond to the definition of service, effectively equipped and organized through shared rules, which allow practices aligned with the original objectives defined by the architect or the social housing manager. It does not represent a mere addition of apartments, but is the place for social life, connecting activities and spaces designed for the different forms of association. The project of the activities, belonging to the housing complex and their physical space, as well as the design of the common areas, should consider the real future users: not only the very residents but also the community inhabiting the immediate surroundings. The context of the intervention, mostly suburban, affects the type of collective services located inside the housing block, which complement the ones already existing in the area. In the case of the requalification of a building in the historic fabric, the substantial quantity of collective services already in place in the area will save resources, which may be invested in the implementation of nearby facilities. The analysis of the context allows also design solutions that would otherwise



Figure 8. The Arkitekten Cie (chief designer Frits van Dongen), “The Whale” housing complex, Amsterdam, 1995–2000.

be considered undesirable. For instance, in “The Whale” housing complex, designed in Amsterdam by The Arkitekten Cie (1995-2000), the inner courtyard is a green area of extreme quality accessible only for maintenance. The inhabitants appreciate this space, intended as an art installation adjacent to the private balconies, because it does not compete with the nearby park (Fig. 8), (Fig. 9).

The described approach, implemented through an extensive research on European case-studies, selected among the most recent social housing realizations, starts from Post-Occupancy Evaluation, analyzes their results and abstracts project issues concerning different aspects of contemporary living. This method keeps together various domains such as spatial and typological research, the evolution of housing, and planning procedures that make use of participatory practices to achieve an accurate definition of needs.

The current housing demand does not solicit a quantitative response: the construction of new buildings or the reconversion of the existing ones into residential space nourishes a situation of obsolescence and discontent. Providing quality social housing entails the coordination of multiple actors and synergies. It definitely requires an adequate individuation of the beneficiaries of programs and interventions by the promoters alongside the definition of long-term plans by the social housing managers. It also



Figure 9. The Whale complex. View from the internal courtyard.

necessitates architects to design projects that respond to the multifaceted forms of contemporary living and are capable of allowing change through the course of time. Finally, it needs an accurate evaluation of priorities and investments by the local administrations.

A new vision on contemporary housing based on a critical revisioning of existing case-studies is crucial to the definition of a joint strategy for a sustainable, socially viable and spatially qualitative development of our cities.

*This article was awarded Honorable Mention at the 2015 THE PLAN Best Paper Award contest. – Ed.*

## Notes

1. Cf. Zygmunt Bauman, *Liquid Times: Living in an Age of Uncertainty* (Cambridge, UK: Polity, 2006).
2. The debate on the minimum dwelling was the central issue of many CIAM meetings, especially in their early years. Some of the most important members of the architectural avant-garde built a large number of *siedlungen* (German for “settlements” or “new neighborhoods”) in Germany during the Weimar Republic. Le Corbusier, Walter Gropius, Ludwig Mies van der Rohe, Hans Sharoun and Bruno Taut, among other architects, exposed their housing models in 1925 at the Exposition Internationale des Arts Décoratifs et Industriels Modernes in Paris and later at the Weissenhofsiedlung, in Stuttgart (Ger.).
3. Giancarlo De Carlo, INA-Casa, Sesto San Giovanni, 1950-51. The investigation carried by the architect highlighted the role of the balconies as social space that is used by the worker/inhabitants to build relationships within their neighborhood. The terraces at the back of the scheme have never been used for the same purpose, contrary to what had been intended by the project.
4. The INA-Casa plan was a public housing program in Italy, funded by the government, developed in two consecutive plans, 1949-56 and 1956-63. Implemented in great diversity of situations and urban contexts, it achieved a varied level of success, but it involved some of the most prominent Italian architects of the second post-war period, such as Mario Ridolfi, Carlo Aymonino, Franco Albini, Ignazio Gardella and the BBPR. – Ed.
5. Preiser (1988), defines Post Occupancy Evaluation as the process of evaluating buildings in a systematic and rigorous manner after they have been built and occupied for some time. POE has its origins in the United States in the 1960s and usually includes a mix of quantitative and qualitative techniques.
6. The concept of “Highrise of Homes” was introduced by the group SITE with a mock-up of building in Battery Park, New York. See <http://www.siteenviroidesign.com/content/high-rise-homes> [accessed on June 16, 2016]. According to Klaus-Dieter Weib’s essay, included in the book *Alta Densità Abitativa - inDetail* (Basel, Switz.: Birkhäuser Verlag AG, 2005), it represents the connection of the two living models which embody dream and reality, and is perceived by citizens as utopia. For this reason, it does not generate a specific need.
7. The plan developed in Madrid by EMVS, Empresa Municipal de la Vivienda y Suelo, is part of the transformation process that this city has experienced between 2003 and 2011 with the construction of almost 59,000 new homes under different forms of public protection (among these are 32,500 VPO - *vivienda de proteccion oficial*).
8. The expression “social housing manager” refers to the Italian “gestore sociale” and designates the administrator of the social housing agency, owning the intervention: a municipality, a regional or national institution or a private company.

## References

- 12 *Concursos de Arquitectura*. I-VII vols. Madrid: EMVS, 2000.
- Abalos, Iñaki. *La buena vida. Visita guiada a las casas de la modernidad*. Barcelona: GG, 2000.
- Aymonino, Carlo, ed. *L’abitazione razionale*. Atti dei congressi C.I.A.M. 1929-1930. Padua, It: Marsilio, 1971.
- Amendola, Giandomenico. *Il progettista riflessivo. Scienze sociali e progettazione architettonica*. Rome: Laterza, 2009.
- Augé, Marc, ed. *Non Luoghi. Introduzione ad una antropologia della modernità*. Milan: Eleuthera, 2005.
- Baffa Rivolta, Matilde and Augusto Rossari, ed. *Alexander Klein. Lo studio delle piante e la progettazione degli alloggi minimi: scritti e progetti dal 1906 al 1957*. Milan: Mazzotta, 1975.
- Bauman, Zygmunt. *Liquid Times: Living in an Age of Uncertainty*. Cambridge, UK: Polity, 2006.
- Beretta Anguissola, Luigi. *I 14 anni del piano INA-Casa*. Rome: Staderini, 1963.

- Biondo, Giuseppe, Carlo Monti, Riccardo Roda and Maria Rosa Ronzoni, ed. *Abitare il futuro. Città, quartieri, case*. Milan: BE-MA, 2005.
- Boesiger, Willy, and Hans Girsberger. *Le Corbusier 1910-65*. Bologna: Zanichelli, 1987.
- Bretagnin, Mauro, and Edo Pietrogrande. *Salubrità dell'abitare. All'origine dell'approccio, ecosostenibile nell'architettura del moderno in Germania ed in Italia*. Monfalcone, It.: Edicon, 2002.
- Chenut, Daniel. *Ipotesi per un habitat contemporaneo*. Milan: Mondadori, 1968.
- Colomina, Beatriz. *Domesticity at War*. Barcelona: Actar, 2006.
- De Licio, Luciano, ed. *La dimensione urbana della residenza*. Rome: Kappa, 2003.
- Di Biagi, Paola, ed., *La grande ricostruzione. Il piano Ina-Casa e l'Italia degli anni '50*. Rome: Donzelli, 2001.
- Garofalo, Francesco, ed. *L'Italia cerca casa*. Verona, It.: Electa, 2008.
- Gelsomino, Luisella, and Ottorino Marinoni, ed. *Territori europei dell'abitare. 1990-2010*. Bologna, It.: Compositori, 2009.
- Giordano, Giovanna. *La casa vissuta: percorsi e dinamiche dell'abitare*. Milan: Giuffrè, 1997.
- Griffini, Enrico A. *Costruzione razionale della casa*. Milan: Hoepli, 1931.
- Grisotti, Marcello. *Residenze flessibili. Progettazione spaziale e tecnologica*. Bologna, It.: Esculapio, 1996.
- Galfetti, Gustau G. *Células domesticas experimentales*. Barcelona: GG, 1997.
- La Cecla, Franco. *Mente Locale: per un'antropologia dell'abitare*. Milan: Elèuthera, 1993.
- Lucan, Jacques, ed. *Le Corbusier: une encyclopédie*. Paris: Éditions du Centre Pompidou, 1987.
- Malighetti, Laura E. *Progettare la flessibilità. Tipologia e tecnologia per la residenza*. Milan: Clup, 2000.
- *L'alloggio trasformabile. Strumenti per la progettazione dell'edificio residenziale*. Milan: Clup, 2002.
- Mostaedi, Arian. *Flexible Homes*. Barcelona: Links, 2006.
- Moya, Luis, ed. *Vivienda Reducida*. Madrid: Mairea Libros, 2007.
- Norberg-Schultz, Christian. *L'abitare. L'insediamento, lo spazio urbano, la casa*. Milan: Electa, 1984.
- Preiser, Wolfgang F. E., Harvey Z. Rabinowitz, and Edward T. White. *Post Occupancy Evaluation*. New York: Van Nostrand Reinhold, 1988.
- Rizzi, Roberto, ed. *Civiltà dell'abitare. L'evoluzione degli interni domestici europei*. Milan: Lybra, 2003.
- Samonà, Giuseppe. *La casa popolare degli anni '30*. Venice, It.: Marsilio, 1972.
- Schittich, Christian, ed. *Alta densità abitativa. Idee, Progetti, Realizzazioni*. Munich: Detail, 2005.
- *Housing for People of All Ages. Flexible, Unrestricted, Senior-Friendly*. Munich: Detail, 2007.
- Schneider, Friederike. *Atlante delle piante degli edifici*. Turin: Utet, 2000.
- Schneider, Tatjana and Jeremy Till. *Flexible Housing*. Oxford, UK: Elsevier, 2007.
- Segantini, Maria A., ed. *Atlante dell'abitare contemporaneo*. Milan: Skira, 2008.
- Turchini, Giovanni and Manuela Grecchi. *Nuovi modelli per l'abitare*. Milan: Il Sole 24 Ore, 2006.
- Turner, John F. C. *Housing by People: Towards Building Environment*. London: Boyards, 1976.

## Credits

All photos, except for photos 4 and 5, are by the Authors.

## Acknowledgements

Some of the issues developed in the present article have derived from the research project “L’abitazione sociale contemporanea. Analisi, valutazione critica, proposta operativa” developed by Romina Marvaldi and Elisabetta Pani, carried out from 2010 to 2012. The research was financed by PO Sardegna FSE 2007-2013 funds on L.R.7/2007 “Promozione della ricerca scientifica e dell’innovazione tecnologica in Sardegna”.

## Conflicts of Interest

The authors declare no conflict of interest.

**Romina Marvaldi** is an Engineer and earned a PhD at the University of Cagliari, with the dissertation: “Contemporary Dwelling. Transformability and Project.” She currently works for AREA Sardegna, the regional public agency for housing. Email: [rominamarvaldi@gmail.com](mailto:rominamarvaldi@gmail.com)  
**Elisabetta Pani** is an Architect and earned a PhD at the University of Cagliari, with the dissertation: “Contemporary Social Housing. Strategies for Analysis and Project.” She has been a Postdoc Researcher and a practicing architect. She currently works for AREA Sardegna, the regional public agency for housing. E-mail: [elisabetta\\_pani@yahoo.it](mailto:elisabetta_pani@yahoo.it)  
“SoHousing” founders, **Marvaldi and Pani** authored a number of articles on housing and new living models. From 2004 to 2014 they taught at the University of Cagliari, taking part in several workshops as project coordinators. From 2010 to 2012 they developed the research project “Contemporary Social Housing. Analysis, Critical Evaluation, and Operational Proposal,” financed by the regional government of Sardinia, and conceived as a deep investigation on European social housing. They have been Lecturers at the University of Cagliari from 2011 to 2014 where they led the “LabSoHousing” course for final Master theses in architecture. The topic of housing has been further explored also through entering architectural competitions.



# Art Walk / Bridging Urban Spaces

REFLECTIVE PRACTICE

Heather Woofter, Sung Ho Kim

*ABSTRACT - The Art Walk project is a stitched landscape that joins several art and media institutions in Grand Center, St. Louis. The current condition of Grand Center allows few moments of connectivity and sense of continuity between urban spaces. The project is divided into four multi-cultured zones that are currently separated by parking lots, pedestrian inaccessible easements, and gated buildings. The urban strategies are part architecture, art, and industrial design elements. They interface with landscape planning to engage the public in multiple scales of activity in order to bridge between discreet urban spaces.*

---

**Keywords:** Art Walk, Grand Center, Axi:Ome, urbanism, landscape

---

The Art Walk project is a stitched landscape that joins several art and media institutions in the Grand Center area of St. Louis. The current condition of Grand Center allows few moments of connectivity and sense of continuity between the urban spaces.

Many American cities face these challenges that evolved, in part, by the predominance of an automotive culture weaving access points and thoroughfares through historically large blocks of public space. In addition, the purposeful labyrinthine management of traffic flows supported a purposeful effort to create defensible enclaves of space around like-minded Institutions. This gating of public space contradicts contemporary thinking, lessening the richness of cross-cultural exchanges and more environmentally

sensitive maneuvers through the city. The resultant predominance of the parking lot also creates division, by privileging a population with cars and by creating asphalt islands in-between visitor destinations. Over time these gaps in the urban fabric provide unique opportunities for landscapes within the city that are moments of public assembly and relief from the density of built form.

## CONNECTIVITY THROUGH ART

The project addresses the fundamental question of “what is art” by establishing the position that art surrounds us in every day life – from social exchanges, to historic building facades, to the phenomena found in our natural environment. This position favors the experience of a connective walk, rather than the dominance of singular objects positioned along a path. By viewing art as a form of communication, the media institutions adjacent to museums provide opportunity for various forms of expression that are “in the moment.”

In this way, the dialogue between curated events and an open discussion restores the idea of the city as primarily a social space, representative of plural populations, unique artifacts and stories. Framing these events, the notable building facades provide a visually rich backdrop referencing the cultural ambitions of historic philanthropic efforts to provide access to educational resources. Walking between them is akin to an exterior gallery experience, with the ceiling as sky and the gallery rooms emerging from the urban context.

With this analogy in mind, the streetscape of Grand Center, which primarily assumed a utilitarian role, needed to shift its definition from one burdened with connotations of abandoned space to a cultural public right-of-way. As part of the gallery experience, the walk was designed to evoke a heightened sense of the site (subtle sounds of the wind, presence of the sky, partial views of facades, sense of topography and seasonal changes) in order to encourage pedestrians to be observers and interface with the uniqueness of each urban room.

## URBAN CHARACTERS AND ROOMS

“Urban rooms” are defined as landscape spaces that create distinct territories between existing buildings held within shared public and private zones of streets, parking lots and gardens. These rooms frame the pedestrian flows, legible from above as a dispersal of vector patterns strengthening the connections between institutions, rather than a single flow along a pathway. As each space has unique properties of movement along and through its boundaries, sensors pick up these fluctuations and activate a series of multi-media, sensory and visual effects to metaphorically turn on the lights as one enters the room.

At a smaller scale, several places within Art Walk contain “urban characters,” such as telescopes, wind devices, light elements, and rainwater collectors:

devices that interface with the urban context. These characters are part architecture, art, and industrial design elements. They interface with landscape strategies to engage the public in reading subtle changes to the environment, and recognize dispersed connections within the city. Primarily, we desire to turn parts of the city to interior rooms, working with the existing fabric to frame gateways and thresholds, with minimal intervention performed by the connectors.

## INDIGENOUS AND FOREIGN LANDSCAPES

In recognizing that the limited green spaces in Grand Center are maintained through less sustainable practices, this project seeks to promote a robust environment of indigenous plantings that establish a fluid landscape with competitive growth among plants and a variegated ecology. Dispersed among these natural plantings are “islands” of more manicured elements, referred to as floating gardens. These mounds create an artificial ground, change the horizon, provide a place of rest, and soften the horizontality of the continuous ground-scape. They stand out as unusual elements, thus signaling a portal into passageways and working to hold the necklace of spaces together as part of a larger system.

The parking lot territories present unique challenges to the landscape. On one side, the number of institutional events justifies maintaining the lots, and in contrast, the community desires an integrated design approach that transforms surface lots into sensitive components of exterior space. If one looks at the transformation of the urban space over time, these lots could naturally “decay” into landscapes through a select series of cuts and disruptions. As a first act, we considered the large lot adjacent to the lowest elevation of the district to primarily address the issue of rainwater collection. A series of cut channels collect water, run through street landscape elements, with a final dispersal at the rainwater retention site. In the context of the city grid geometry, the landscape provides relief, a new geometry and transitional material, transformative and invading the static street.

## FINAL REMARKS

The Art Walk project aspires to activate and transform an urban space over time through the complexity of competing interests and changing infrastructures. At one impetus, seven private owners and local government came together to reimagine their connective property. Their conversations and agreements will shift, the specific details of the architecture will modify, but the relationships between them will never be the same for a moment of shared vision. Combine this with citizens appropriating spaces, claiming joint interest in their city to create transformative relationships; the project’s realization is found somewhere in this momentum of reimagining urbanity.

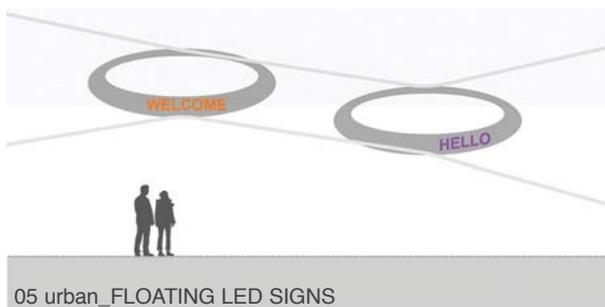
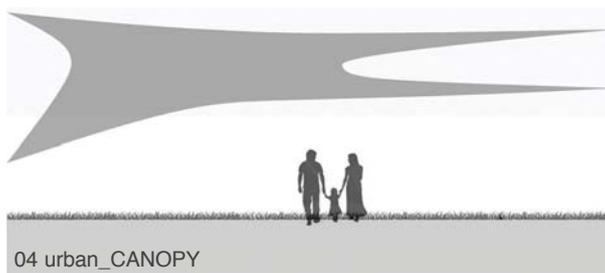
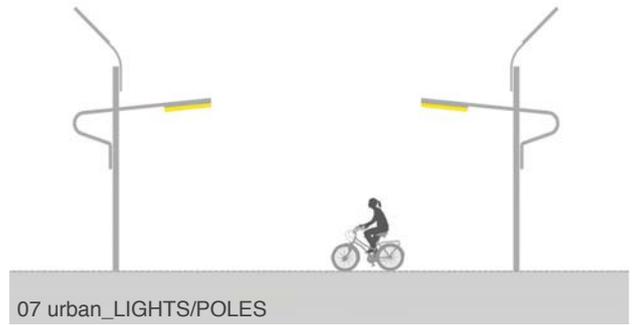
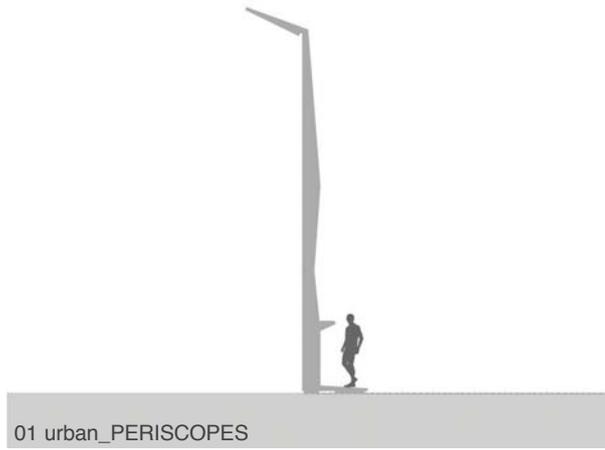


Figure 1. Diagrams of urban landscape elements (I).

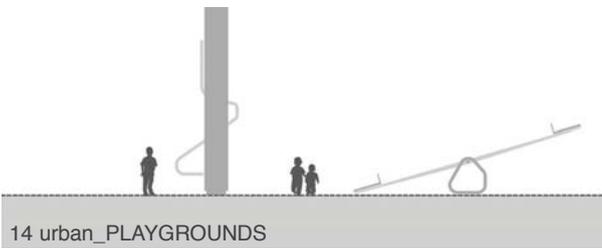
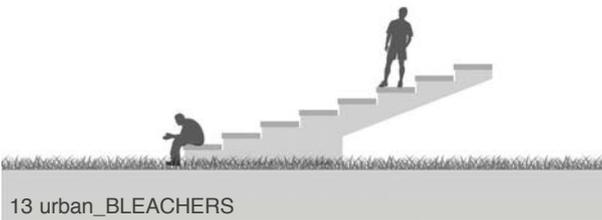
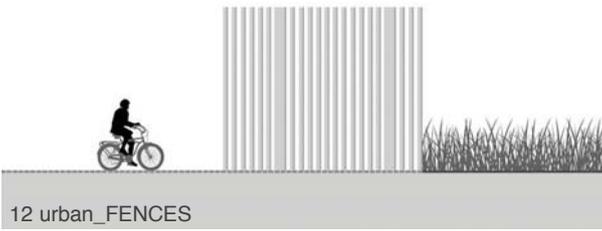


Figure 2. Diagrams of urban landscape elements (II).

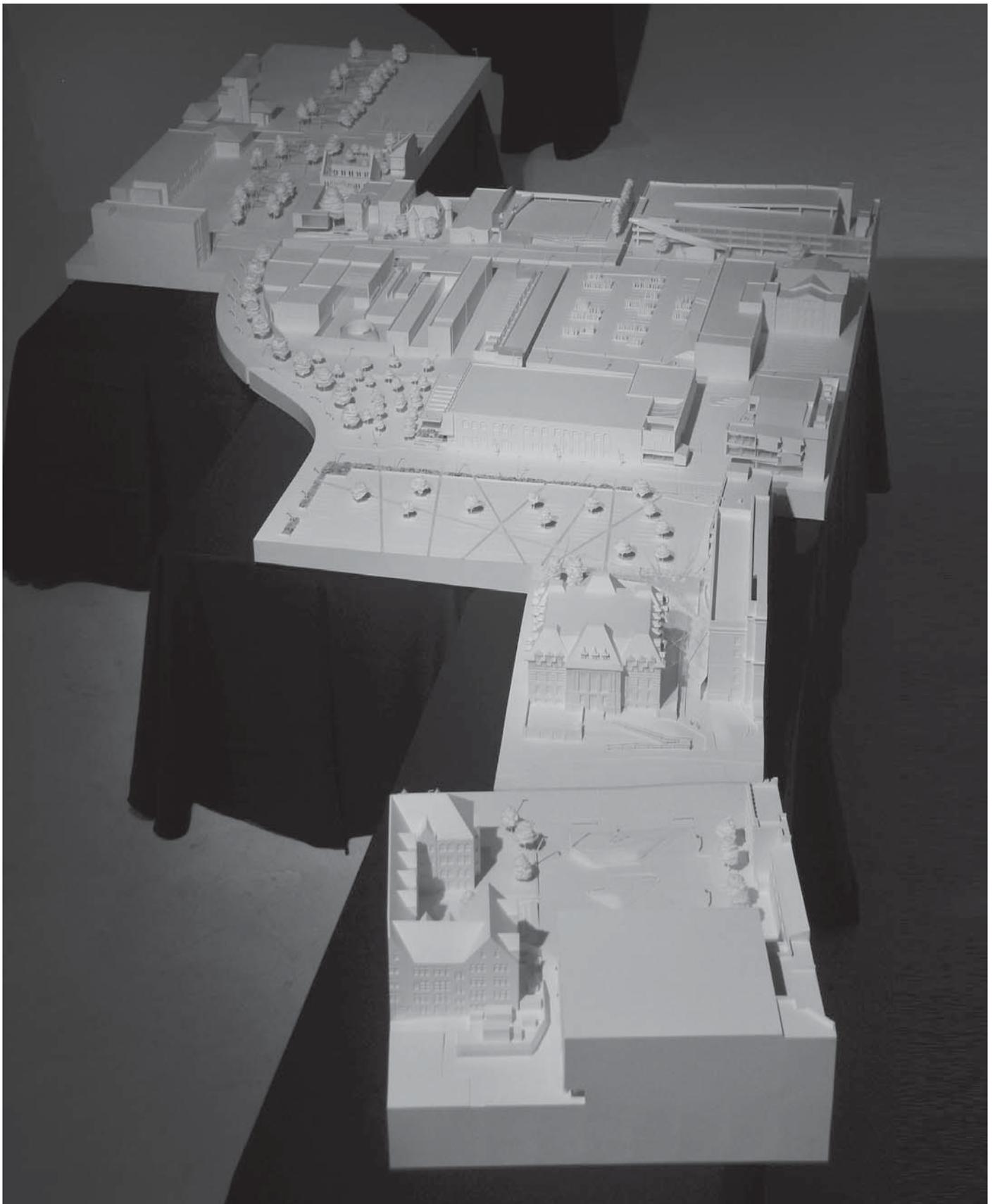


Figure 3. Site model, 3/32":1" (1:128) scale, 8'x20' (2.4x6 mt) overall dimension.

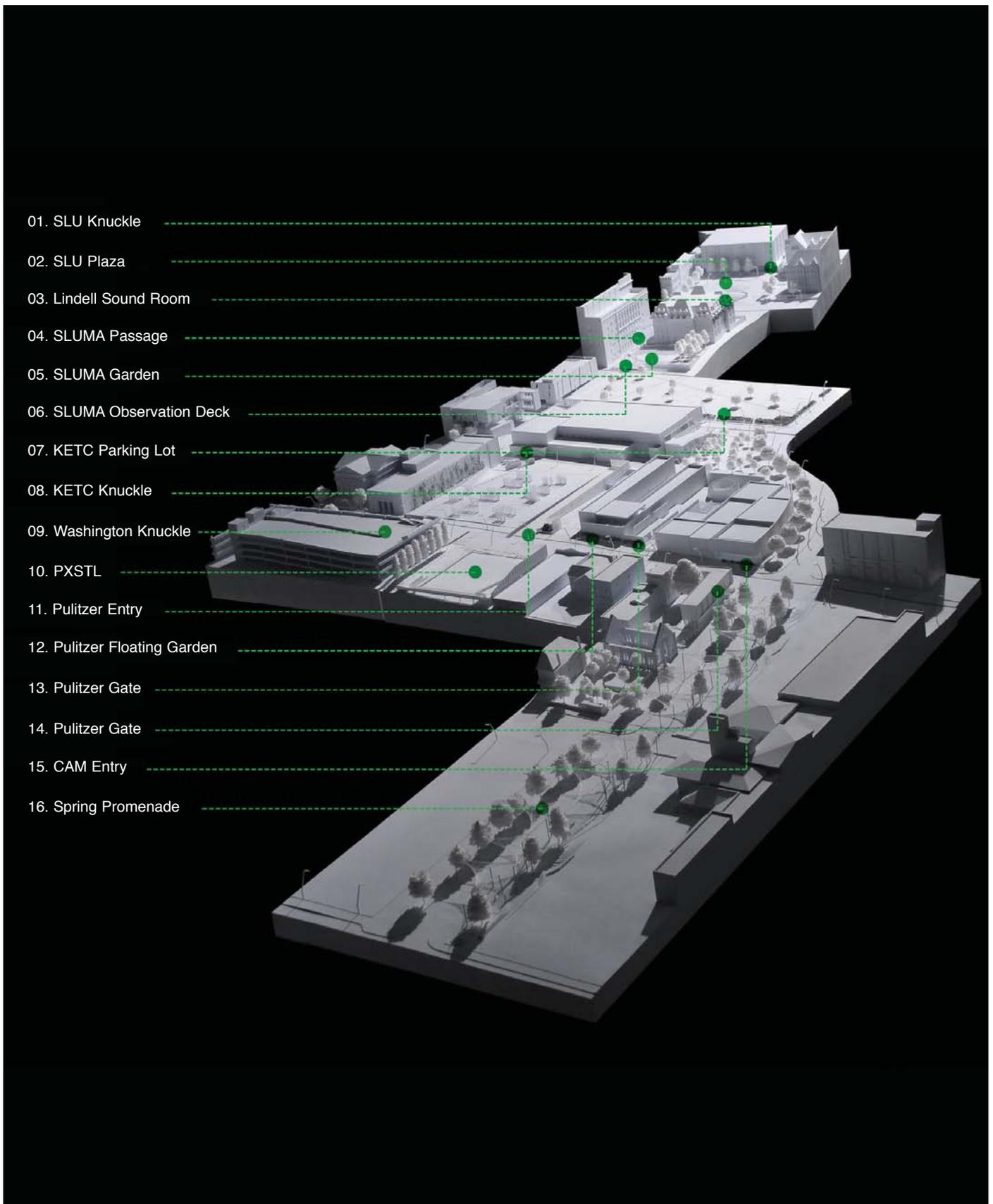


Figure 4. Urban components in situ.

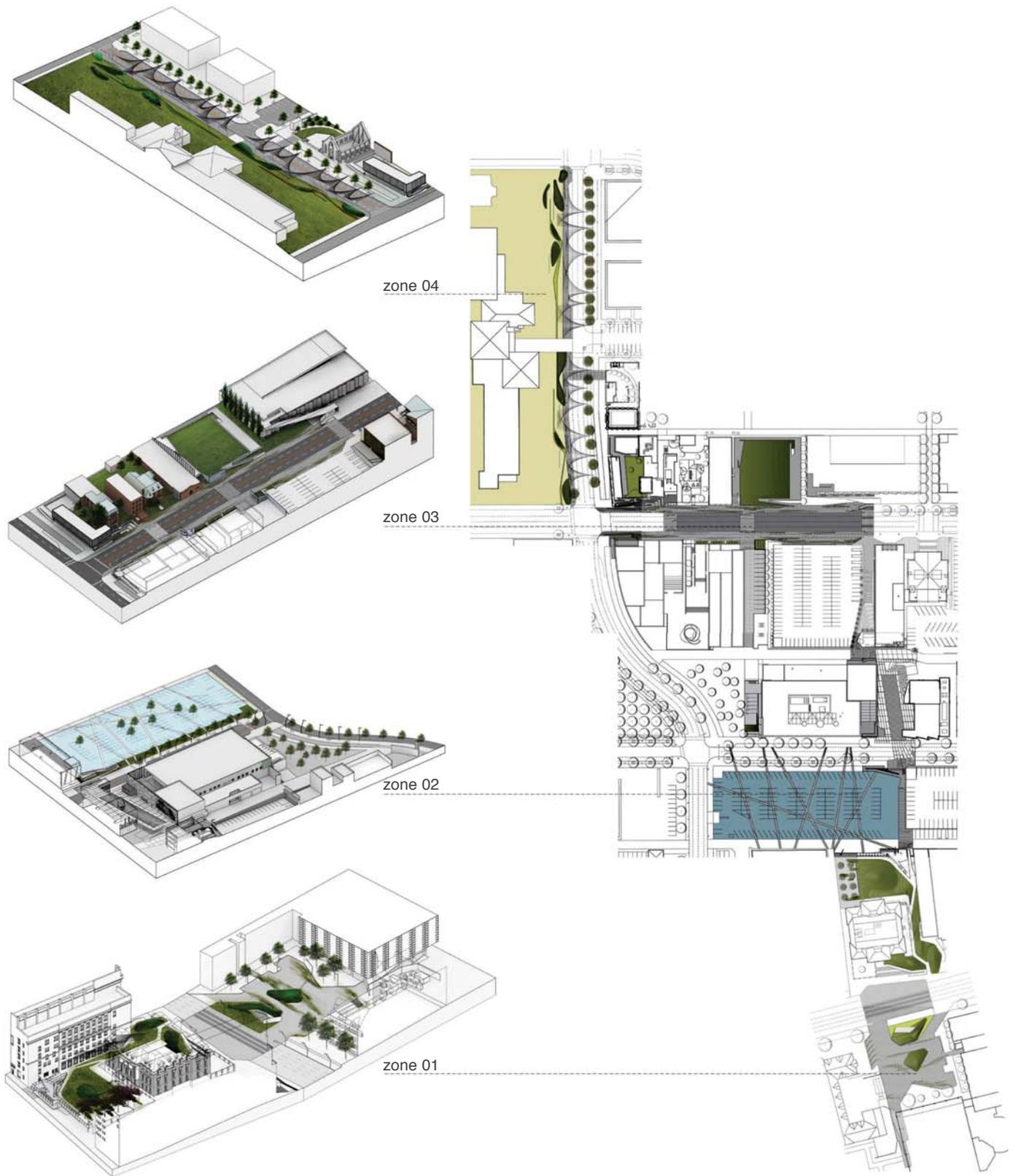


Figure 5. Site plan with the four zones.

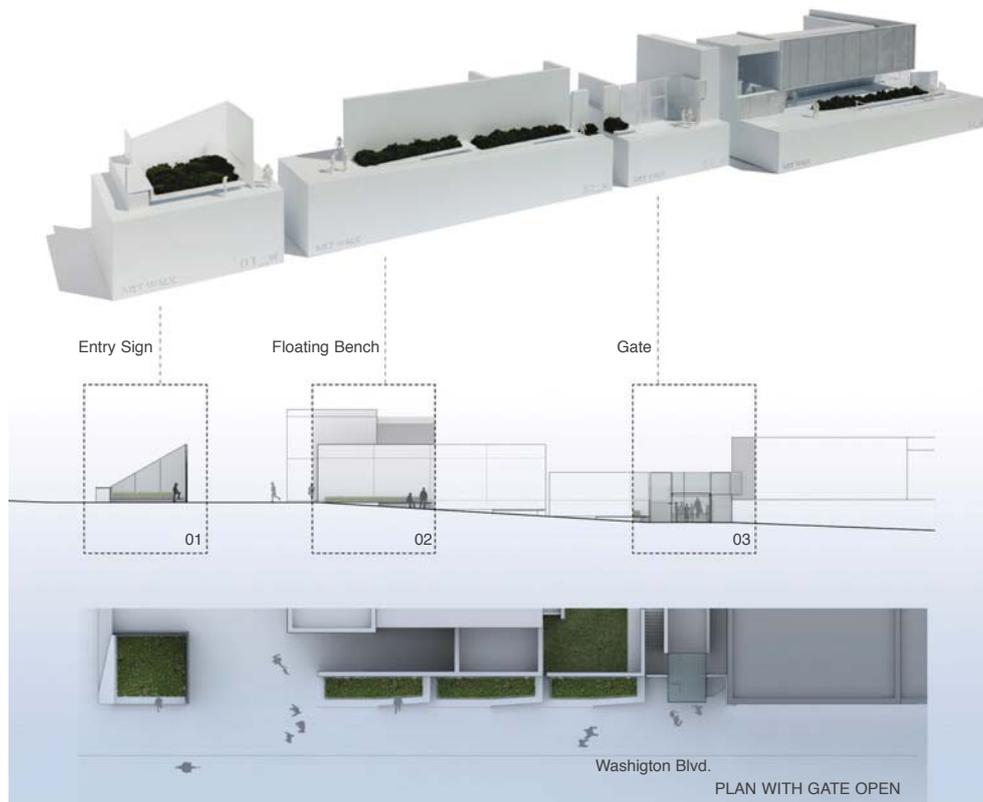


Figure 6. Detail model, 1/4":1" (1:48) scale, and drawing of entry condition at Pulitzer Arts Foundation and Contemporary Art Museum.

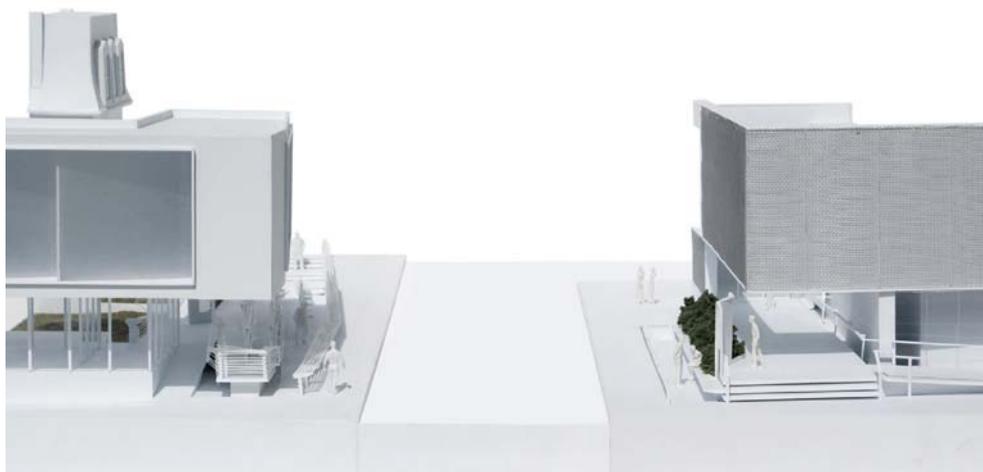


Figure 7. Detail model, 1/4":1" (1:48) scale, of Olive Street entry at Pulitzer Arts Foundation and Contemporary Art Museum

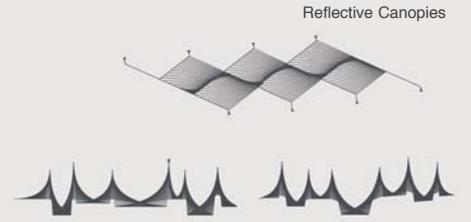


Figure 8. Detail model, 1/4":1" (1:48) scale, and diagram of reflective canopies.

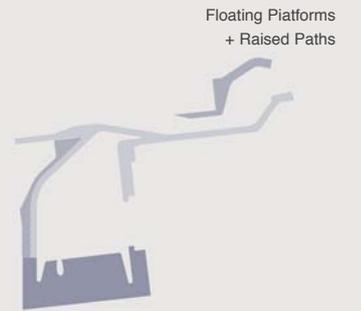


Figure 9. Detail model, 1/4":1" (1:48) scale, and diagram of floating platforms and raised paths.



Figure 10. Detail model, 1/4":1" (1:48) scale, and diagram of landscape topography.



Figure 11. Detail model, 1/4":1" (1:48) scale, of floating platforms and raised paths.



Figure 12. Detail model, 1/4":1" (1:48) scale, of Sheldon Art Museum and Nine Network knuckle connection.



Figure 13.  
St. Louis University  
(SLU) zone.

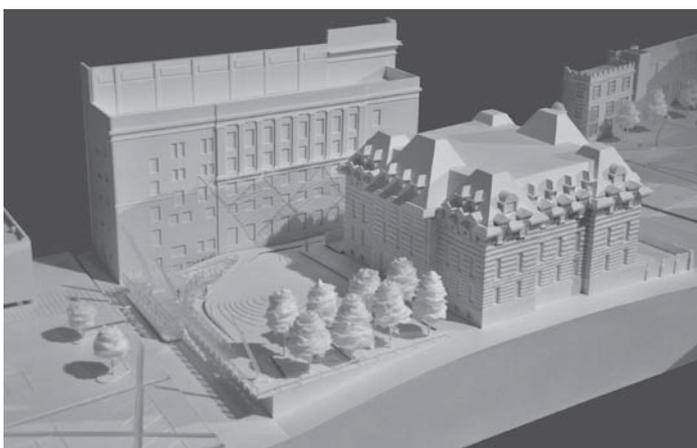


Figure 14.  
SLU Museum of Art and  
Scottish Rite zone.

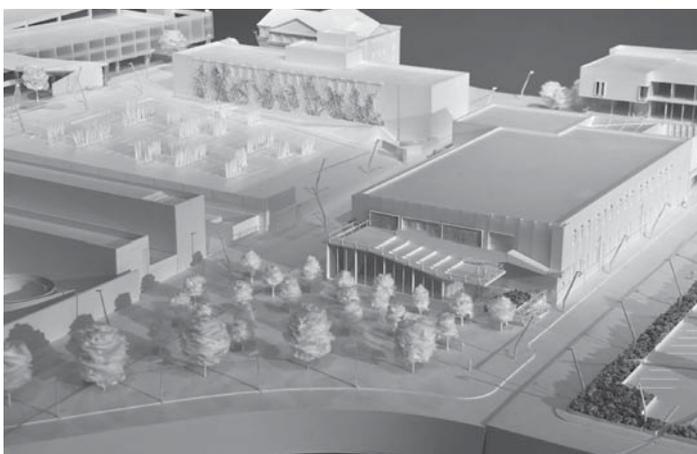


Figure 15.  
Nine Network  
public television zone.

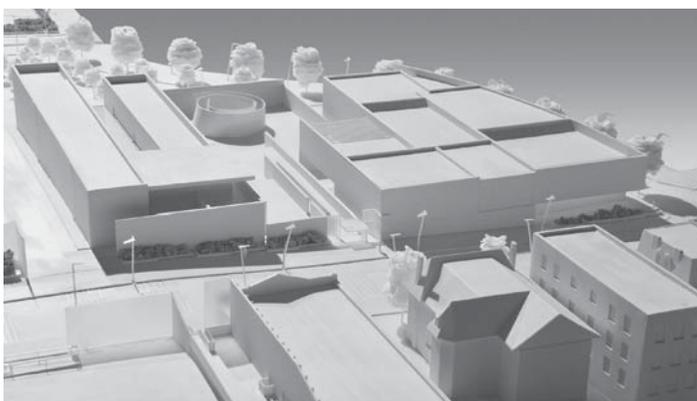


Figure 16.  
Contemporary Art  
Museum, Pulitzer Arts  
Foundation zone.

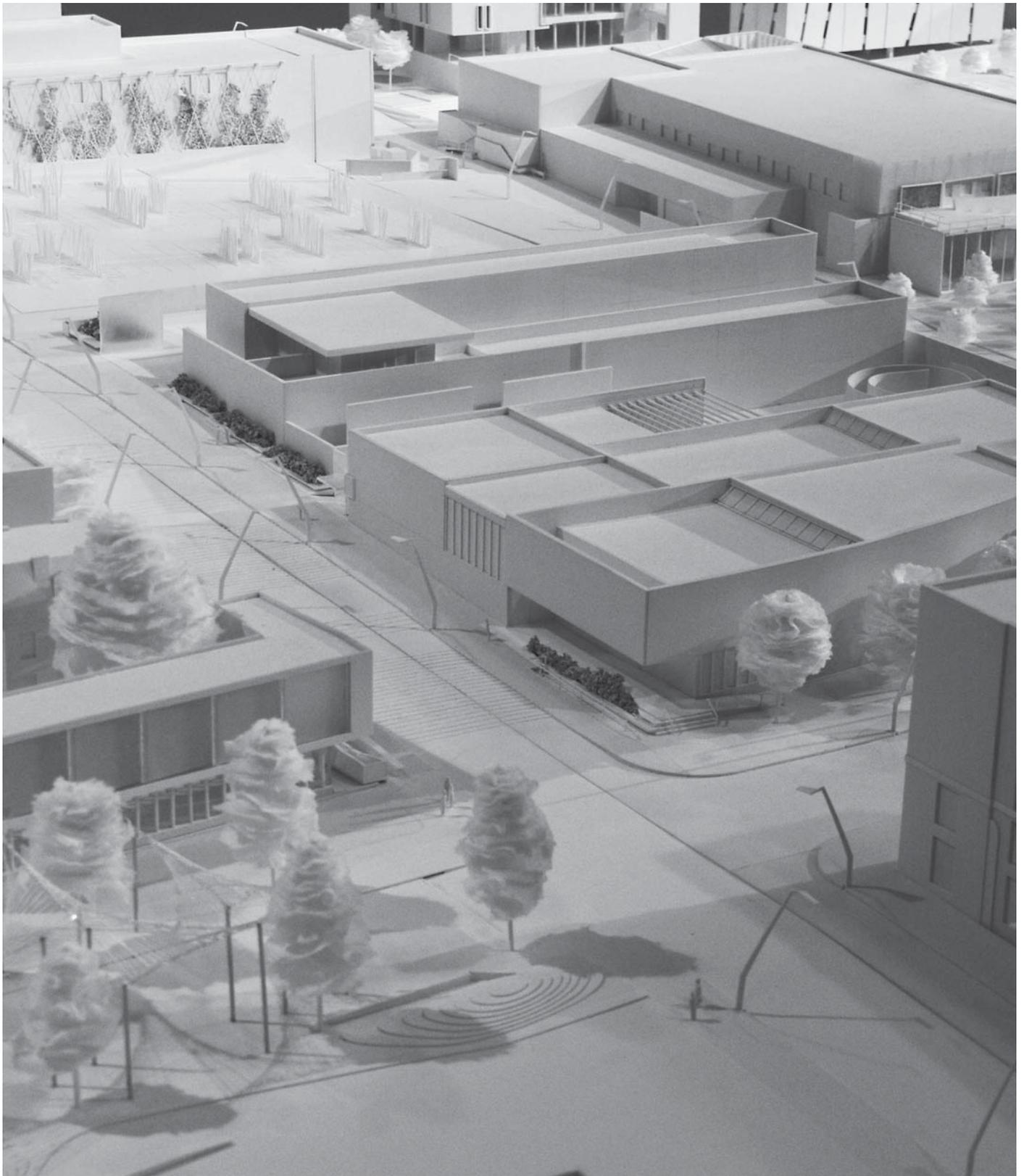


Figure 17. Contemporary Art Museum, Pulitzer Arts Foundation and reflective canopy zone.

*This project has been previously published, with a different selection of illustrations and an abridged text, in: Woofter, Heather, and Sung Ho Kim. Axi:Ome llc. Seoul: 3C Publishing Co., 2016.*

**Project Team**

Architect: Axi:Ome llc - <http://www.axi-ome.net/>

Principals in Charge: Heather Woofter and Sung Ho Kim

Design Principal: Catty Dan Zhang

Project Manager and Coordinator: Jaymon Diaz

Project Designers: Evan Barrett and Elisa Kim

Design Team: Uros Stanojevic, Xuanchen Zhang, Zhengyang Wang, Young Il Pyun, Hannah Novack, David Poeyamidjaya, Chenglong Zhao, Haosheng Yu, Alex Kim and Anthony Haun

Landscape Design Consultant: Irene Compadre

Landscape Technical Consultant: Rich Kacenski of DTLS Landscape Architects

Cost Estimating: Cooper Construction

**Heather Woofter** is a Registered Architect and passed Royal Institute of British Architects Parts I and II. She was an Assistant Professor at Virginia Polytechnic Institute, Visiting Professor at Aristotle University of Thessaloniki in Greece and Konkuk University in Seoul, Korea. Currently, she is a tenured Professor of Architecture and a Chair of the Graduate School of Architecture at Washington University in St. Louis. E-mail: [woofter@wustl.edu](mailto:woofter@wustl.edu)

**Sung Ho Kim** has Royal Institute of British Architects Parts I and II and Sung Ho taught at Rhode Island School of Design and was an Assistant Professor at Northeastern University. He was a Visiting Professor at Aristotle University of Thessaloniki in Greece and Konkuk University in Seoul, Korea. Currently, he is a tenured Associate Professor of Architecture and Graduate Core Coordinator at Washington University in St. Louis. E-mail: [sungho@wustl.edu](mailto:sungho@wustl.edu)

**Heather and Sung Ho** are founding directors of Axi:Ome llc of St. Louis (USA) since 2003.

# China's Grand Canal. Strategies for Sustainable Urban Development in China

URBANISM

Andrea Degli Angeli

*ABSTRACT - China has had to deal with the huge architectural and urban development challenges created over the past fifty years. China's economic growth model has been based on accelerated consumption and manufacturing, with inevitable and significant environmental and social consequences. The model discussed in this paper seeks to employ the principles of sustainability in a specific urban development context: the massive Beijing-Hangzhou Canal, the longest artificial waterway in the world. The model simulates a macro strategy for the redevelopment of this ancient water system utilizing and adapting highly successful traditional Chinese planning methods for urban, wetland and rural areas. Elements of this model could serve as the basis for effective future Chinese urban development in similar contexts. China has already begun actualizing policies and strategies to address major concerns about environmental and social issues. The proposed model is intended to contribute to this endeavour and to promote sustainable growth in the most populated country in the world. The project outlined in this paper shows that the planning elements that inspired Marco Polo's admiration for Chinese cities are still highly relevant in a country increasingly damaged by inappropriate and standardized international urban development approaches.*

**Keywords:** sustainability, urban development, future cities, China, grand canal

The words Grand Canal immediately make us think of the beautiful Venetian canal that attracts people from all over the world to marvel at the extraordinary architectural landscape created over the centuries. The urban morphology of Venice is based on the land-water dichotomy, and over centuries it developed and maintained an urban form in perfect harmony with its natural environment and that which surrounds it. The Grand Canal, considered the backbone of this urban plan, involved the creation and design of special architectural models. It is one of the most complex, studied, and admired systems in the world.

After the military and economic decline of the eighteenth century, Venice was no longer a major political and economical power. In spite of this, the city was able to preserve the characteristics that made her famous in the world and, taking advantage of the beauty of this unique urban landscape, it transformed itself gradually from a market town into a tourist destination. Venice successfully addressed the issue of architectural conservation during the nineteenth and twentieth centuries, when elsewhere the massive economic changes that were occurring led to demolition of historic buildings and entire areas, followed by reconstruction and expansion using poorly planned and regulated urban schemes. The purpose of this paper is not to deal with Venice critical issues; rather the question is what can be learnt from Venice that can be applied to current and future urban planning. The present paper explores how the application of these principles, with the enhancement of contemporary tools and techniques, can develop new boundaries for the human landscape at a time of profound global change and degradation, and in so doing give to future generations opportunities to live in attractive new urban landscapes that are in harmony with Earth's delicate ecosystem.

#### CHINA'S GRAND CANAL

The Chinese Grand Canal, in Chinese *Pinyin Jing-Hang Yunhe* (Beijing-Hangzhou Grand Canal), and the Great Wall were the two major projects of ancient Chinese civilization, both acting as symbols of its power and sophistication. With a length of 1,794 km (about 1,115 miles), it is the longest artificial waterway in the world. (Fig. 1). It is not strictly a canal but rather a system of connected waterways. In China, numerous watercourses, from 486 BC, were excavated, constructed, sanded and drained all over a period of 2,000 years, during which successive dynasties and emperors invested in the river system. These waterways played also a vital role in the reunification of China. For centuries the easy navigability of the water network allowed for the transportation of people, goods and materials, as well as the spread of knowledge and culture.

The development of this commercial network strengthened China's economy and its relations with the rest of the world and allowed

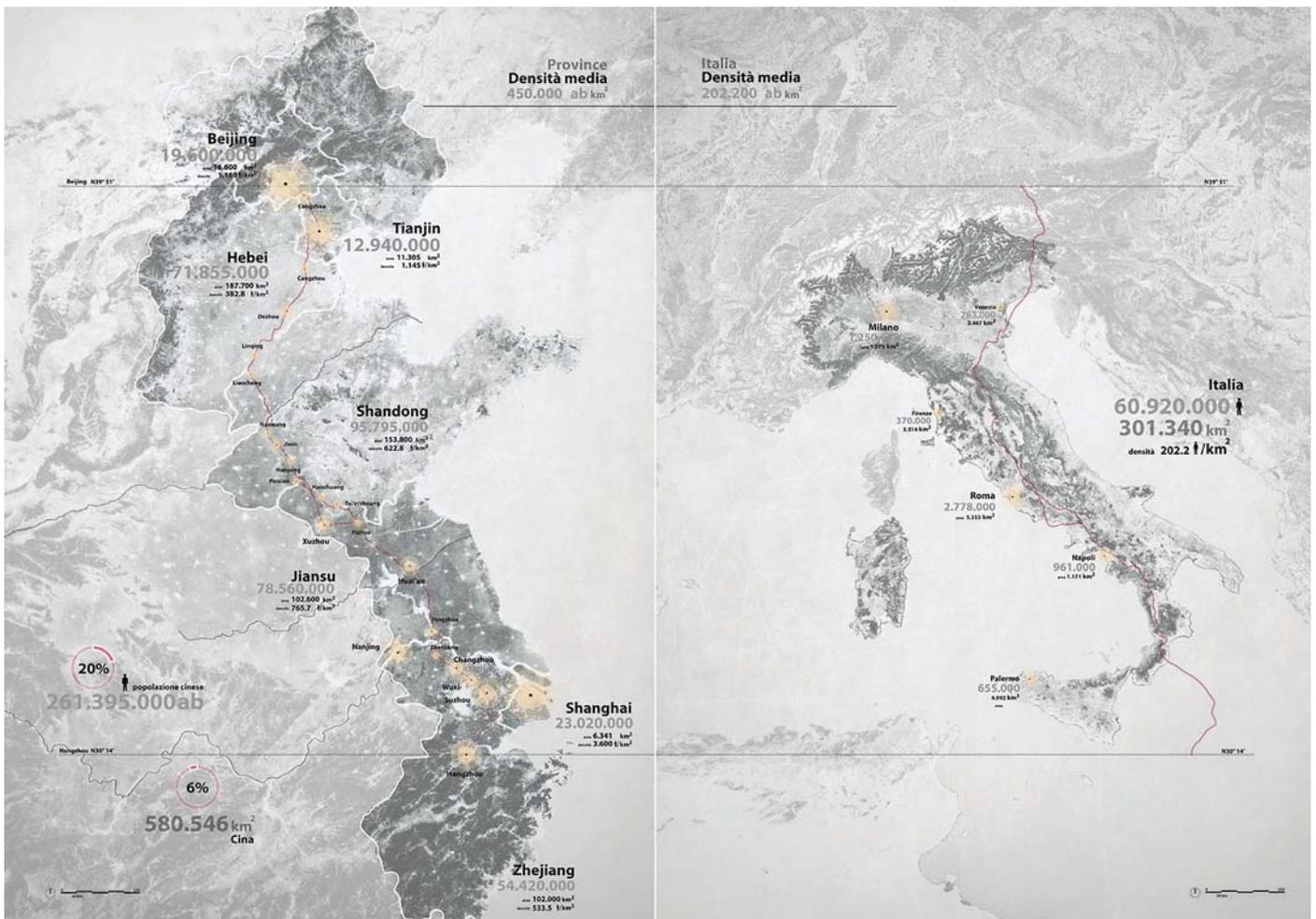


Figure 1. Comparison between the China's Grand Canal and Italy.

wheat and rice from the richest province of the Yangtze (Chang) to be transported to feed the standing armies near the capital in the north; in the Tang Dynasty about 200,000 tons of grain were transported yearly. The countless transformations that occurred over time profoundly altered the canal's path. In 2008 the complete network was under consideration by UNESCO as a World Heritage Site, and there are on-going studies and research on the difficult task of rebuilding the geological, hydrological and archaeological sites within the canal network. In short, the Grand Canal is a colossal achievement and demonstrates key principles regarding the transformation of the territory by man, in his relationship with nature, being of the utmost relevance today.

### CHINESE URBAN MORPHOLOGY

Before going any further, it is vital to examine what features of Chinese culture, cities and homes can be employed to avoid inappropriately standardized and decontextualized planning.

### *The Traditional Chinese City*

The rigid nature of traditional Chinese space definition and urban planning reflects the features of a culture that based its values on Confucianism, with space organisation following a superior-inferior hierarchical model that reflected social structure. This is a model determined by the symbolism that was an integral part of both cosmology and imperial ideologies, and it was applied to the organization of cities and towns as well to regulating life inside the Chinese household. The family, not the individual, acted in public life. The strict geometry, the absolute symmetry, and the inflexible hierarchy that were rigorously applied in the ordering of the Chinese home are an architectural representation of the equally strict doctrine-based order that governed family and public life.

The key elements that made up the ideal Chinese city are enclosing walls, an orthogonal road layout, the central location of the palace, a south-north processional axis, the preferred orientation of the building to the south, the similar height of buildings, and the courtyard typology as a framework for all buildings. The main difference between Western and Chinese philosophy, with regard to settlement and building, is that since ancient times Western culture has focused on changing environments to suit need, whereas the Chinese focus until very recently was on ensuring that human activity does not disturb the cosmic balance, while endeavouring to enter into a harmonious relationship with one's surroundings.

The combination of these factors led to the identification of two urban structures that are very different from a morphological point of view. In the West we see more complexity, with a rich and varied urban structures and articulated spaces full of public buildings – an expression of a culture open to foreign contributions. In contrast, Chinese society was more closed with an inherent desire to maintain its own culture. This was reflected in planning and produced morphology of rigidly homogeneous spaces governed by hierarchy.

### *The Traditional Chinese House*

Traditionally, in China the relationships that govern the distribution of spaces on an urban scale also govern the layout and construction of houses. As we have seen, it is the family, not the individual, that is of primary importance in Chinese society.

The single-family courtyard home was the most suitable residential typology for accommodating a social microcosm as it embodies a dichotomy: the intimate space for private use totally separate from the outside world.

The Chinese courtyard house, which is either square or rectangular, is a far cry from the ideas behind western building as there is an absence of volumetric compactness, and because of the major role open spaces play. It is characterized by a set of articulated formal spaces, (including additional smaller courtyards and pavilions) that are enclosed and volumetrically autonomous, and which are independently placed on the sides of the large

central court, in a strictly interrelated and predetermined arrangement. It is important to note that the aforementioned type of courtyard house was abandoned in the West 2,000 years ago and that the Chinese house changed and developed considerably, going from a single family home to a multiple family dwelling through a process of cell doubling, fragmentation of the original unity and the introduction of lots of public paths linking the new courtyard in a process called "insulization." In today's cities, however, with the shift from the large extended family to a single core family, many traditional houses were split up into apartments, and the original spatial organisation has been altered or obscured.

The significance of Confucian ideology and the resulting social order in China has diminished with the change in family structure and socio-cultural values in Chinese society that have occurred since 1900, as well as the advent of increased individualism influenced by Western culture and its socio-economic dynamic. Finally, if in ancient Chinese cities, as well as those in Europe, the land use was mixed (residential and commercial), with the recent economic development land uses have changed by allocating specific areas for residence, trade, industry and green spaces, further contributing to disrupt the spatial configurations of the urban fabric of Chinese cities.

#### *Elements of the Courtyard House: the Fence*

The *siheyuan*, the traditional Chinese courtyard house, was a house enclosed by a high wall without windows so as to prevent any form of contact between the inside and the outside worlds. It had a single level and a rectangular plan and was characterized by an axis, which functioned both as a spatial organizer and a place for social activities.

In keeping with Confucian principles, rooms and spaces were laid out in a hierarchical order with respect to the central axis. The closed-open, internal-external, public-private dichotomies inherent to Chinese construction and architectural culture are all represented by the external wall element.

A separate private world characterised by neatness, colour and vegetation stood in contrast to the anonymous and impersonal public space beyond it with its busy roads, or, in the case of Suzhou, its canals. While the courtyard house is not the only Chinese residential solution, it remains the most significant and its principle of interior separation is noteworthy.

Over a long period of time various factors have contributed to less rigid enclosure, nonetheless the concept of enclosing and a surrounding wall are still key factors in Chinese architectural culture and the use of space.

#### *Elements of the Courtyard House: the Garden*

The empty space of the courtyard, in traditional Chinese homes, is just as important as the buildings themselves. In the traditional urban context, as well as streets and alleys, courtyards have also represented the virtually only form of open space in a crowded urban context. In traditional houses, each small courtyard and, in some cases, private gardens as well, were mainly shared

only by members of each resident families. The development of gardens within these courtyards is an integral part of Chinese culture that encourages closeness to nature and peace as an antidote to urban confusion. For this reason, courtyards gardens almost always contain elements that refer to a natural landscape: it is not surprising then that in Chinese calligraphy the character for garden is composed of a tree (a trunk with branches) enclosed in a square (a courtyard space and external wall). The natural world was central to Chinese art and gardens, which were works of art carefully created with attention to rhythm, scale, balance, harmony, proportion, and unity. Man has for centuries spoiled the natural landscape in which he lived, transforming it at will for human activity and the creation of settlements. The importance of Chinese gardens shows a vital respect for nature and the need to remain in contact with the natural world.

## CHANGES

### *Demographic and Economic Development*

In 1950 China's population was about 554 million people, in 1990 it reached the one billion mark and in 2013 it stood at around 1.3 billion. The United States Department of Economics and Social Affairs estimates that the population will reach its peak in 2050 with 1.4 billion people before levelling off and dropping slightly to around 1.2 billion in 2100.

The population of China represents around one fourth of the world population. The significant population growth that has occurred in the last fifty years is attributed to the strong improvement in the economy, which has experienced an average growth rate of 10 % per year for more than twenty years. China now has a GDP second only to the United States, with predictions that it will surpass the US around the year 2040. (Fig. 2).

This economic miracle, that has been on-going notwithstanding the global financial crisis, has resulted in China facing one of the most significant social and cultural transformations in its long history. A very large number of young people are leaving rural areas, where most live on the equivalent of \$2 a day, to go to the cities looking for work opportunities in factories and elsewhere. Today, with major participation by foreign companies, China has significantly increased production in high technology sectors and is currently the third biggest investor in research and development in the world. China's massive coal, oil, mineral and uranium resources have been a significant factor in the success of its industrial development.

In many respects China has to deal with the grave problems that occurred during the Industrial Revolution, as unbridled development using a nineteenth-century industrial model has brought vast wealth, but with devastating consequences for natural ecosystems that will have a massive impact not only on China, but also the entire world. While the Chinese government is aware of these huge problems and is slowly beginning to take remedial steps, it still largely continues to support this model, which allowed China to become a major world financial and military power.

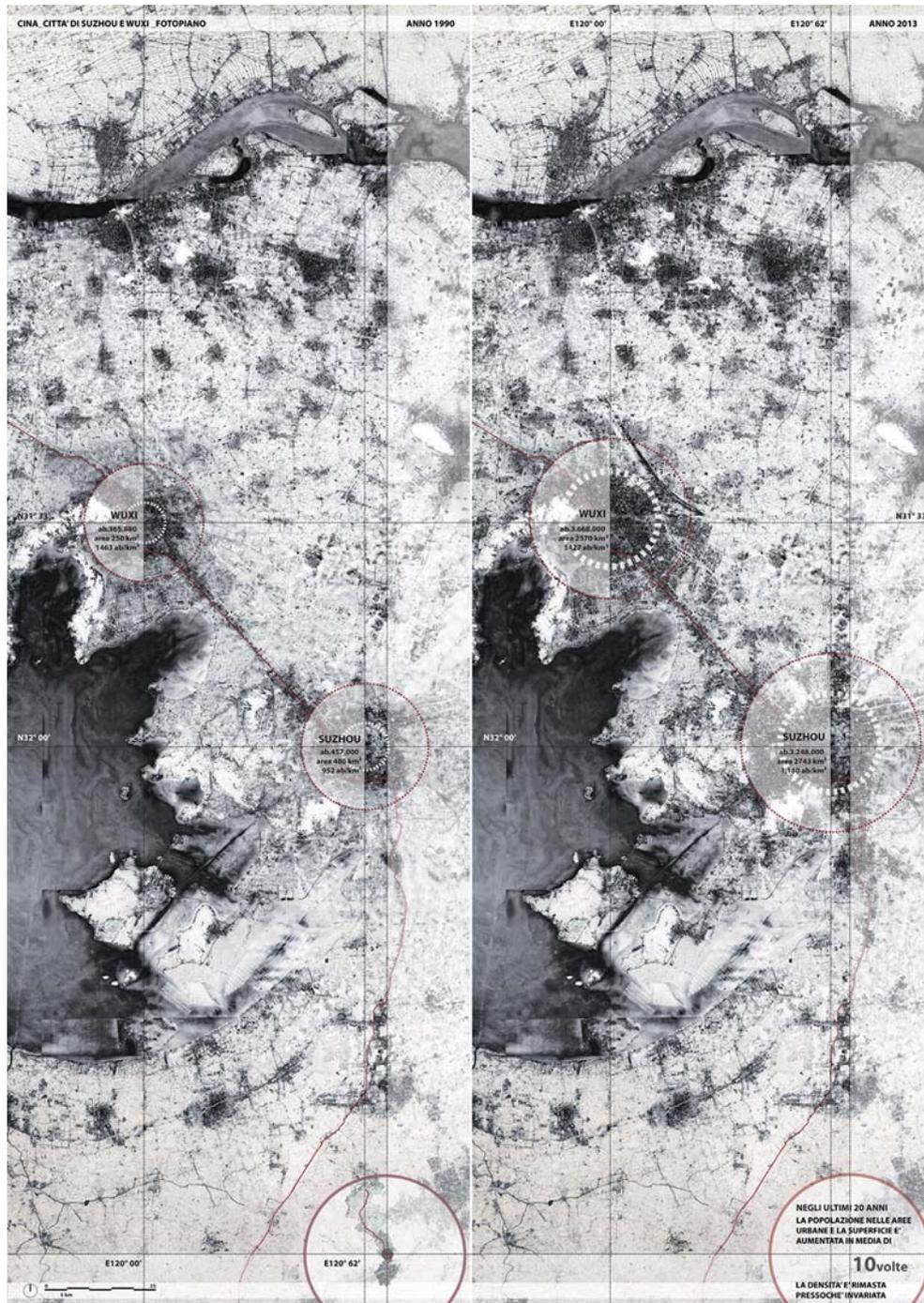


Figure 2. Human change analysis. Comparison between 1990-2013.

### Natural Resource Consumption: Water

This kind of economic growth does not come without problems: water supply and water pollution are two of China's most serious and complex challenges. China's renewable water supply results in an annual 2,140 m<sup>3</sup> per capita, compared to 1,720 in India and over 10,000 in the United States.

However, as it is the case for other countries, water distribution is uneven: for example, supply is very good south of the Yangtze, while many areas in the north have poor supplies and are almost barren.

The large river system in China flows mainly from the Tibetan mountains, crosses the whole of China, flowing into lakes, going deep beneath the surface to feed aquifers, before finally arriving at the sea in the far east of the country. The manmade system of canals that constitutes part of the Grand Canal diverts the natural watercourse, and flows from south to north (instead of from east to west) thus allowing the canal to cross a considerable number of other canals; a radical concept that the Chinese historians have described as “a brilliant act of madness.”

This system has worked very well until the present day and represents a huge communication and transport system that transfers resources from the agricultural basin of the Yangtze to the political and administrative centres in the north, where millions of people live today. However the non-uniform distribution of water and the growth of demand in cities are having a strong social impact: in the north of the country, where about 50% of the population live, there is access to only 14% of water resources.

As a major part of China's food self-sufficiency policy, the government pushed to transform the northern plain into a large area for agricultural production. This plan required groundwater to be pumped out of aquifers at a rate faster than these are naturally able to be replenished, causing a rapid decline of water resources. Obtaining water this way has led to the loss of wetlands, as well as seriously damaging streams and canals, with a huge impact on ecosystems and the geological stability of the territory. In the provinces of Hebei, Shandong and Jiangsu, water use is also greater than its availability, and the same happen in the municipalities of Beijing and Tianjin; the only exception are the areas around the Grand Canal and in the province of Zhejiang, in both of which availability is greater than the demand.

According to estimates, 70-80% of national water consumption is for industry and agriculture. Demand in residential areas, which in 1980 was almost insignificant at about 1.5 % of the total, is currently 6% due to rapid population growth, with consumption increasing from 7 to 32 million m<sup>3</sup> per year. (Fig. 3). Large demand in urban areas combined with inadequate infrastructure and bad management by local governments has led to water shortages in more than 600 cities across China, as well as leaving more than 300 million people, who live in rural areas, without access to safe drinking water.

Additional negative factors are weak legislation and ineffective institutions at all levels of government (from national to local), poor and sometime corrupt tender procedures and institutional rivalry. To remedy the situation would require a strong centralization of management and control, but this is highly unlikely to happen in the foreseeable future due to the impotence

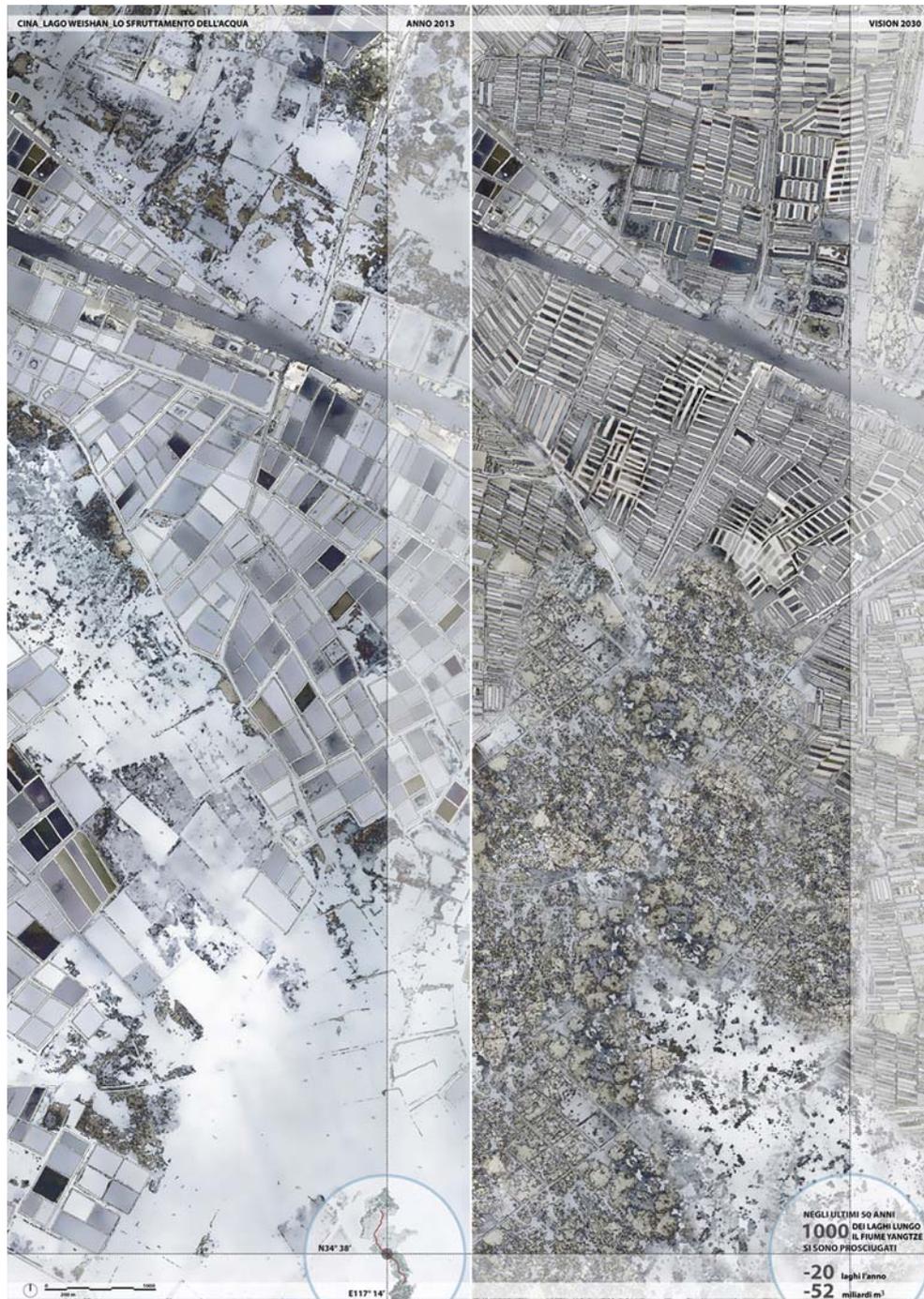


Figure 3. Water change analysis, future projection. Comparison between 2013-2100.

of the central government in reforming regional powers, which are frequently corrupt and supported by powerful vested financial interests. A traditional engineering culture is widespread, and the usual response to water shortages is to invest heavily in large projects rather than to research and implement new models or improve management. Notable examples is the 2002 approval for a pipeline from the Yangtze to the north of the country,

which has a capacity of 45 billion m<sup>3</sup> of water per year, and the investment in new seawater desalination plants in the vicinity of the city of Tianjin.

### *Energy and Emissions*

In the last few years, China has become the world's largest polluter, exceeding even the United States. The damage caused by pollution and environmental degradation is to such an extent that it threatens the very fabric of society. China has thirteen of the most polluted cities in the world. In addition to air and water pollution, a tenth of the cultivated land is estimated to be contaminated by heavy metals.

Unbridled growth without adequate controls and the application of suitable technology and techniques has left the nation with an enormous environmental deficit. Key factors are rapid urbanization and the use of coal as the main energy source, which recorded an increase from 10 % of supply in 1961 to 54 % in 2008. The nation has consumption about 2 and a half times its bio-capacity. The vast emissions of greenhouse gases have already crossed the sustainability threshold in twenty-five Chinese provinces. A considerable environmental problem is that the backwardness of rural areas, which both exacerbates the problem and hampers the implementation of solutions. The average temperature in China in the last century, grew by between 0.6 and 0.8 degrees Celsius and in the last 50 years, the sea level has increased by 1-2 mm per annum. Climate change has made China vulnerable to droughts, floods, tropical cyclones and heat waves. (Fig. 4).

Although China still relies heavily on coal to produce two-thirds of its primary energy, in recent years there has been a rapid rise in the use of alternative energy sources: in particular, hydropower, wind power, solar, and biomass power. Nevertheless, the energy supplied by renewable sources is equal to only 8% of total output. The 12<sup>th</sup> Five-Year Plan has set aside massive subsidies and investment with a target of 15 % of budget by 2020 to be used for sustainable energy sources such as biomass energy, solar energy and in particular wind energy. In contrast, hydropower is expected to have a slight decrease in future funding because of the environmental problems caused by the huge works that they entail. It is important to note that China's main priority is continued economic growth and developing backward areas of the country and significant transformation and damage will continue. We will have to wait to see if current and future measures to protect the environment will have any significant effect.

### CHINA TODAY

With continued rapid growth, China is currently experiencing deep political, economic and socio-cultural changes. The process of globalization and the entry of foreign capital into the country have caused profound changes in the morphology of Chinese cities and their culture as a whole.

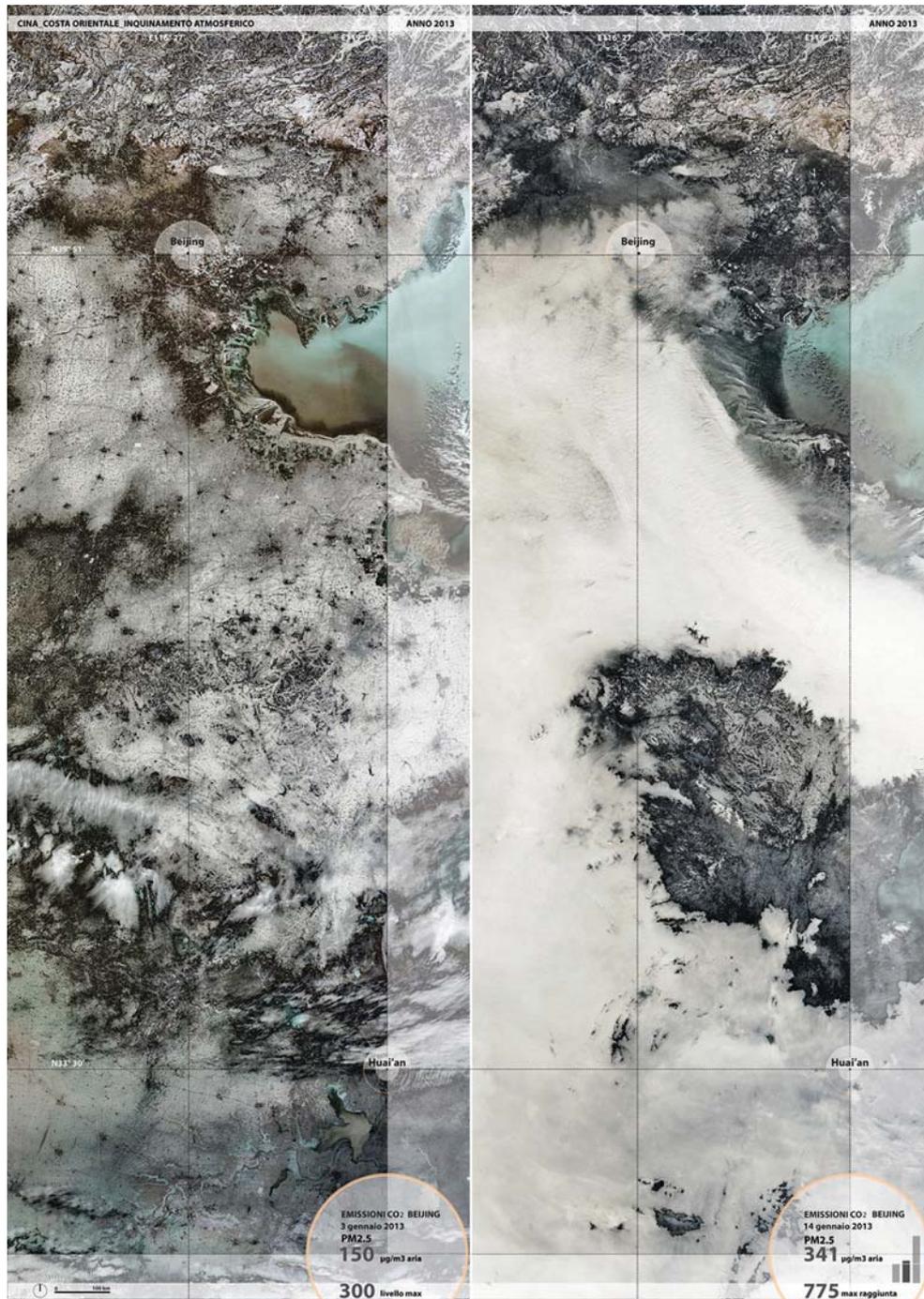


Figure 4. Climate change analysis, pollution increases. Comparison between the normal and the polluted day, year 2013.

The old models were replaced in less than a century, with the preceding scale and the pace of urban development replaced by new models with Western morphological and space characteristics. This fast and relentless transformation has caused Chinese cities to lose much of their identity, with the demolition of old urban areas and their replacement with Western models. These new models are often alien to the local population, as they

do not contain any of the traditional features of Chinese housing and their focus on traditional Chinese family interplay. In terms of culture, China could be seen as having been “conquered” by the West, given the loss of local character and its replacement by Western urban standardization, which has replaced traditions that had been jealously safeguarded for centuries. Alien design concepts such as residential tower blocks and skyscrapers have been introduced indiscriminately and uncritically and at a greatly accelerated rate since 1980, causing enormous damage to Chinese design culture.

### *Planned New Cities*

The construction of new cities is a comparatively new approach in urban Chinese planning, which in previous times was resistant to phenomena of social and urban transformation. Some of the best known projects in progress, such as One City and Nine Towns around Shanghai, seem to affirm the need to recognise that cities have limits in their ability to cope with a continued demand for housing. Given the transfer of large numbers of people from the country to the city, and in order to preserve existing cities, it is necessary to build new cities.

There are basically five criteria that determine the creation of a new city. The first and second criteria are closely related to each other and consist of “geopolitical and dimensional relationships” compared to existing settlements; the third is the “internal articulation of the functional components”; the fourth is the establishment of a “minimum town and city population threshold”; the fifth criterion is the “practicality of realising the project,” or at least part of it. In China the construction of new cities is mainly for one or more of three reasons: industrial modernization, constraining urban physical expansion of existing cities and the creation of centres for research and development.

## MACRO-STRATEGIES

### *Changing Management Opportunity: the Grand Canal as a Macro-Infrastructure*

Success is more likely if we see meeting the challenges created by environmental, climatic, social and cultural changes as opportunities. From this perspective, the processes become an occasion for a new and effective management of territory and resources and also a chance to restore attitudes that are central to a proud and proven heritage. The purpose of this study is to identify a theoretical and applicable model for resource management and change that is also adaptable to territories as a whole instead of the standardised solutions that typically characterize urban development. In developing countries, where rural living often involves hardship, an increase of urban areas can often be seen as a positive aspect as it offers a better life, more opportunities, development,

innovation and access to services. The real problem is the uncontrolled expansion of these areas. The adoption of the new city model is well intentioned, but the lack of overall strategies will result in the problems with existing cities continuing to occur. What is needed are new settlement schemes that are able to relieve the growing population pressure in and around the growing mega-cities in China, with the advantage that they would offer good living standards, far better use of resources and reduced environmental impact. (Fig. 5).

### *Settlement Strategy*

The proposal put forth in this paper is that a well-planned development of the Chinese Grand Canal may play a role of fundamental importance. The proposal is to use the canal as the location for new urban spaces on its margins, using a self-sufficient settlement model for the efficient and sustainable use of available resources.

The canal would act as an interregional infrastructural corridor, and the facilitator of large-scale development in new territorial strategies. This would help to control the expansion of the main urban centres, with the canal acting as the backbone of a city system, thus avoiding the radial expansion polycentric model that is characteristic of megacities, and instead employing a polycentric linear model, which promotes exchange, economic development and brings opportunities to the population living in rural areas, all of which are important advantages.

In order to avoid destructive competition between neighbouring administrative areas and the inappropriate influence of speculators and private developers, it is fundamental that this urban development macro-strategy is directly managed by the national government. Furthermore, it is essential that the positioning of these settlements is integrated with local planning so as to ensure appropriate development and to avoid uncontrolled growth. Correct scale of intervention remains essential and will be identified by typology on a case-by-case basis.

Therefore this paper's proposal involves the identification of four stages for determining this strategy. These are as follows:

- The First Phase would be a reorganisation of the existing layout and the establishment of an infrastructure, as well as the design of a transport system for people, goods and resources. The purpose of this phase is to spread the production, use and management of resources (water, energy, food, industrial and urban waste disposal, and recycling) throughout a single system that is able to integrate them. This would reduce the size of single areas within the infrastructure, and locate production in order to reduce dispersions that result when there are large resource displacements, thereby contributing to the preservation of land and the environment.

- The Second Phase would involve a linear process of urbanization, whose layout would be determined by infrastructure alignment. To attract settlers to new communities, key locations would be identified as candidates for urban development based around resource and service structure hubs (e.g. water purification, agriculture, employment opportunities, etc.).
- The Third Phase would involve the replacement of the existing inefficient road system with a new simplified system so as to better connect the main existing urban centres with the new centres created along the Grand Canal system by Phase Two, with the additional benefit of decreasing the amount of land covered by impermeable road surfaces, thus reducing flooding, land and water wastage.
- The Fourth, and final, Phase would consist of regional biotic corridors throughout and around the infrastructure network and the new urban centres. This would make a contribution against climate change and provide recreational areas and animal sanctuaries, as well as mitigating high temperatures.

## CONTEXT DECLINATIONS

### *Drivers*

In order to determine a model that is not limited to offering a single solution it was essential to identify some indicators for defining the size of new urban projects and the relationship that they have with existing urban areas and the local environment, and the relationship between functional spaces and the established minimum and maximum thresholds.

The projects are customized to variables, and to address the main problems encountered. For this purpose 3 leader elements have been chosen; human resources, water, and energy. Using these 3 factors we are able to identify usable technological elements for site conditions. These would be made more efficient with suitable new technologies and new public and private investments.

### *Macro-Area Individualization*

Once an urban plan strategy and a general change-management model are established, it is necessary to assess applicability and feasibility of the model by identifying different contexts and elements considering the geographical, climatic, and geopolitical diversity along the entire canal's network. The proposal focuses on three strategies for implementation on a territorial scale on the basis of area classification. (Figs. 6, 7 and 8).

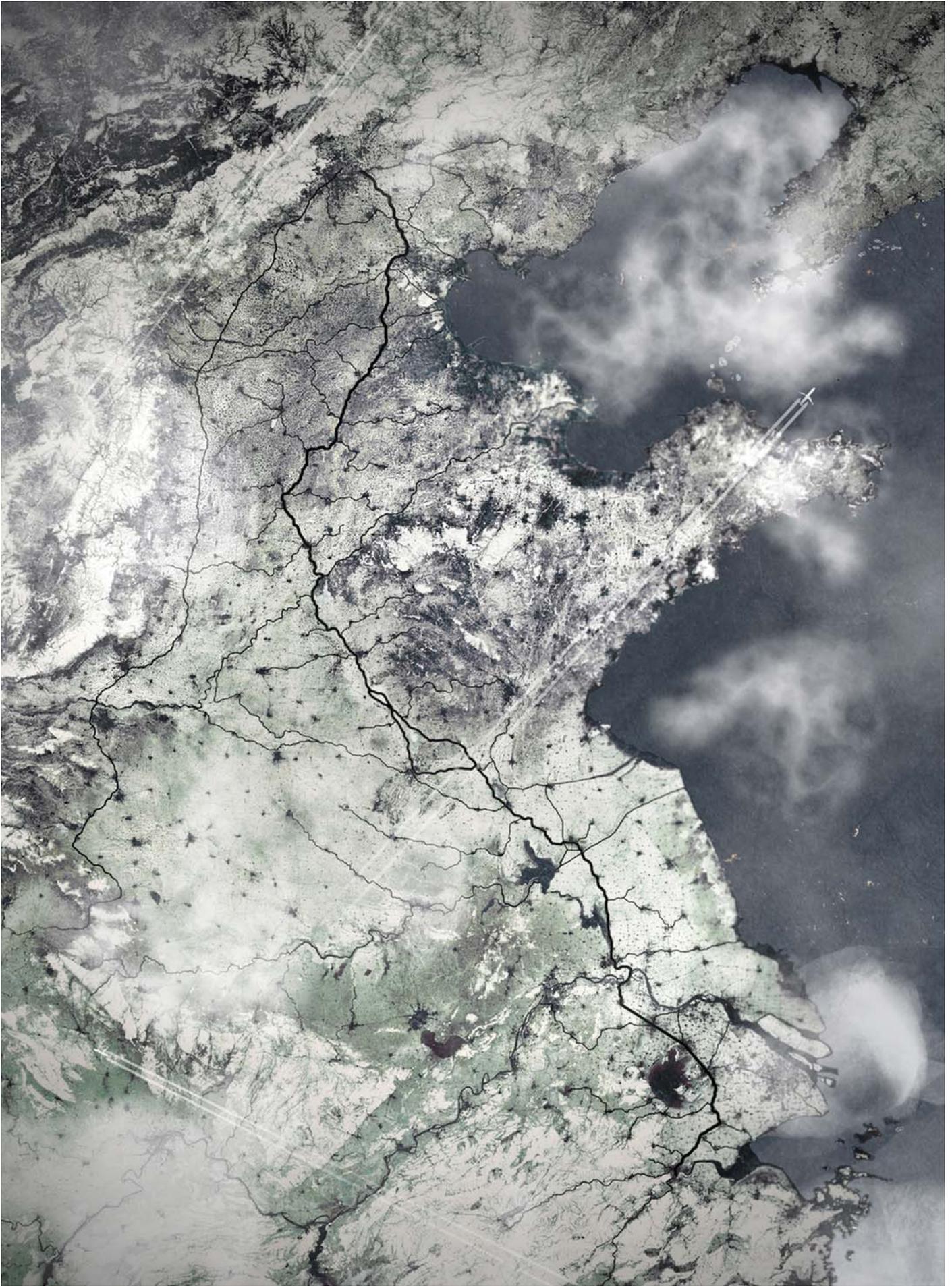


Figure 5. China's Grand Canal, the entire rearranged network. Aerial view, 2100.



Figure 6. Context 1, typical urban area. Top view.

### *Context 1: Urban Sprawl*

The urban objective is to contain the expansion caused by new migratory influxes for existing cities located in the vicinity of the Grand Canal and to improve urban quality through the establishment of a large network of focused projects in the most vulnerable and degraded urban areas, such



Figure 7. Context 2, typical wetland area. Top view.

as slums, abandoned and ex-industrial areas, etc. This would involve urban regeneration projects and the establishment of new green areas on reclaimed land, which would absorb greenhouse gas emissions and supply important nature areas for public recreation. Existing green areas would be re-landscaped. Selected demolition and redevelopment would take place to provide public urban space for the



Figure 8. Context 3, typical rural area. Top view.

community. More public space would involve increasing population density in specific zones with higher office and residential buildings, which would become poles for subsidised community activity. (Figs. 9 and 10).

### *Context 2: Water Treatment*

The aim is to exploit the great availability of water in the lakes and the wetlands along and near the Grand Canal. In the past, there were

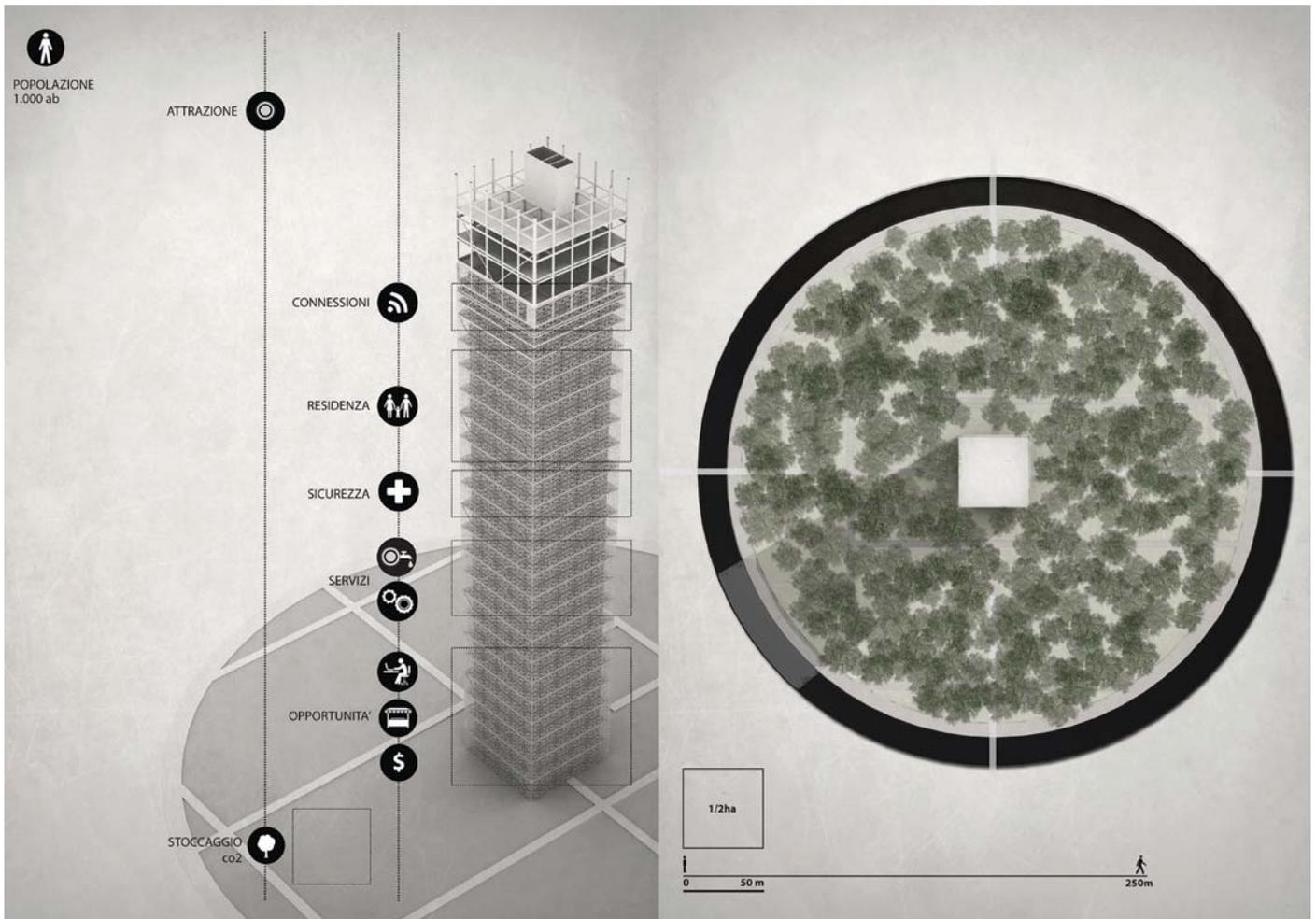


Figure 9. Urban area, typical system.

many small communities that disappeared because of the previously discussed economic and social changes. The proposal is to make it possible to establish new communities centered around future water treatments plants.

The communities would be set up using the traditional tulou, which is a single building complex occupied by all members of a small independent community. This age-old community model is still highly relevant today and offers many advantages for the effective sustainable use of shared resources. The activity necessary to establish and maintain water treatment facilities would help to sustain the community.

The advantage of this approach is that you see results earlier (as each project becomes implemented), treatment facilities can be customised to local needs with local self-management, and each area acts like a module that can be interconnected at a future date, allowing for the maximum utilization of the system. There will be enormous benefits for the environment and the remaining water-dependent fishing and rice growing communities.

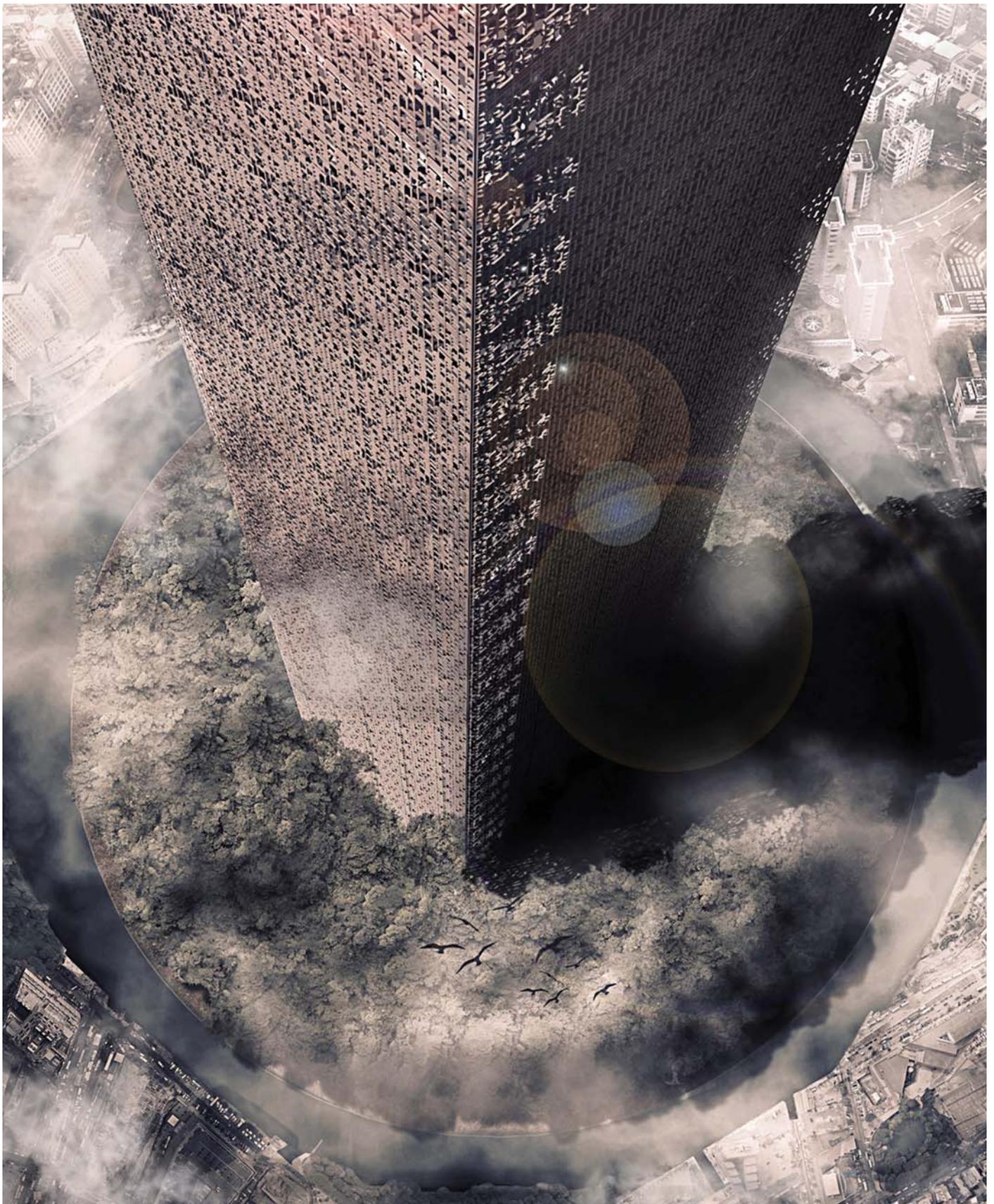


Figure 10. 2100 urban area view.

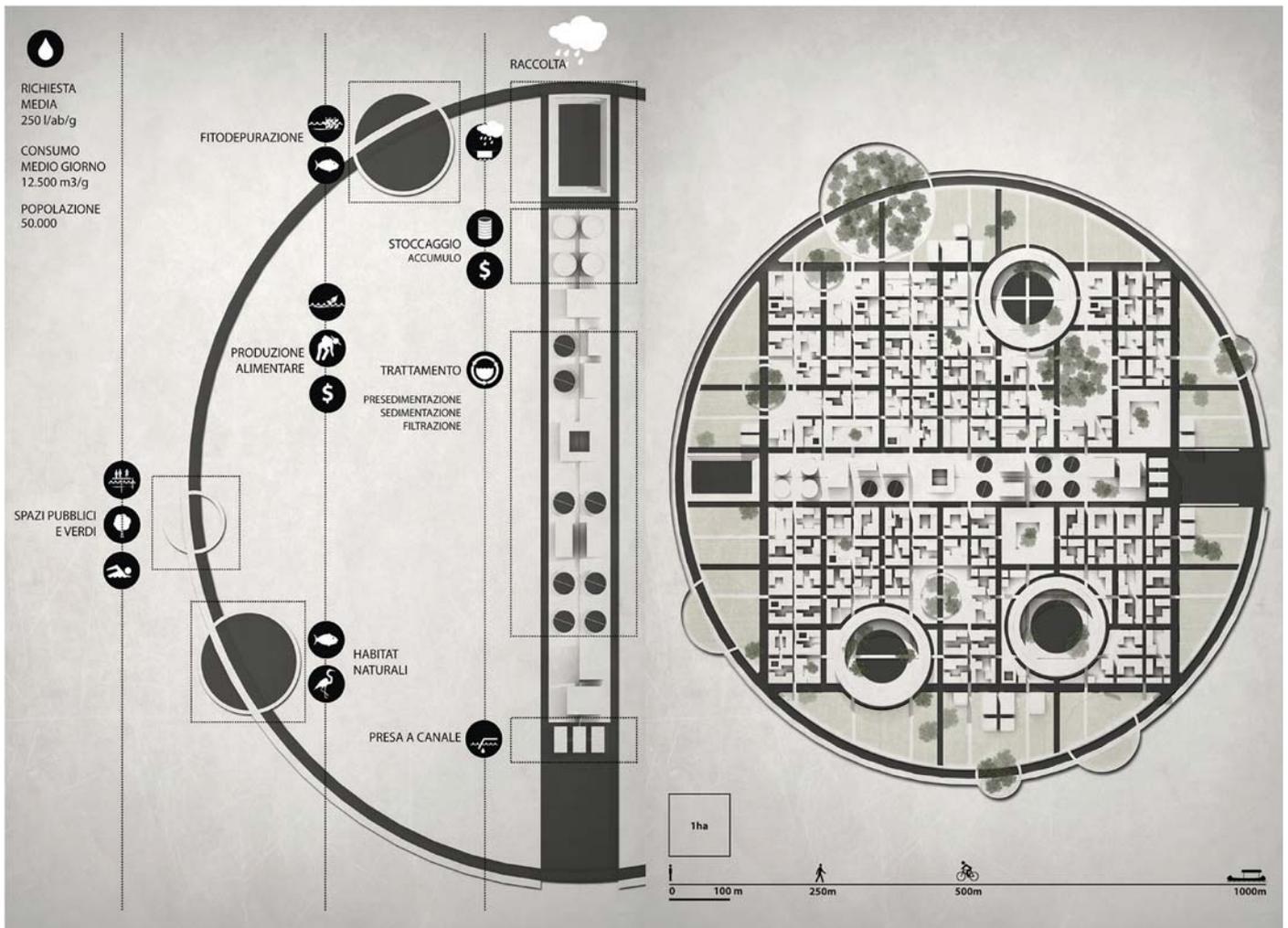


Figure 11. Wetland area, typical system.

The positive impact of this proposal would be felt in more distant areas, which would now have access to clean water, energy and available resources from recently established communities, therefore encouraging other settlements to be created. (Figs. 11 and 12).

### *Context 3: Energy Production*

The plan is to use the energy produced by the power of the constant currents of the river for existing and potential agricultural areas, minimizing the use of energy from the main power grid. Other power sources would be wind energy, which is ideal in the vast flat areas adjacent to the canal and photovoltaic systems providing solar energy. This would result in increasing energy accessibility in both urban and rural areas and reducing carbon emissions. Because flooding has repeatedly, over the centuries in this areas, caused significant damage to communities and agriculture seriously threatening



Figure 12. 2100 wetland area view.



Figure 13. 2100 rural area view.

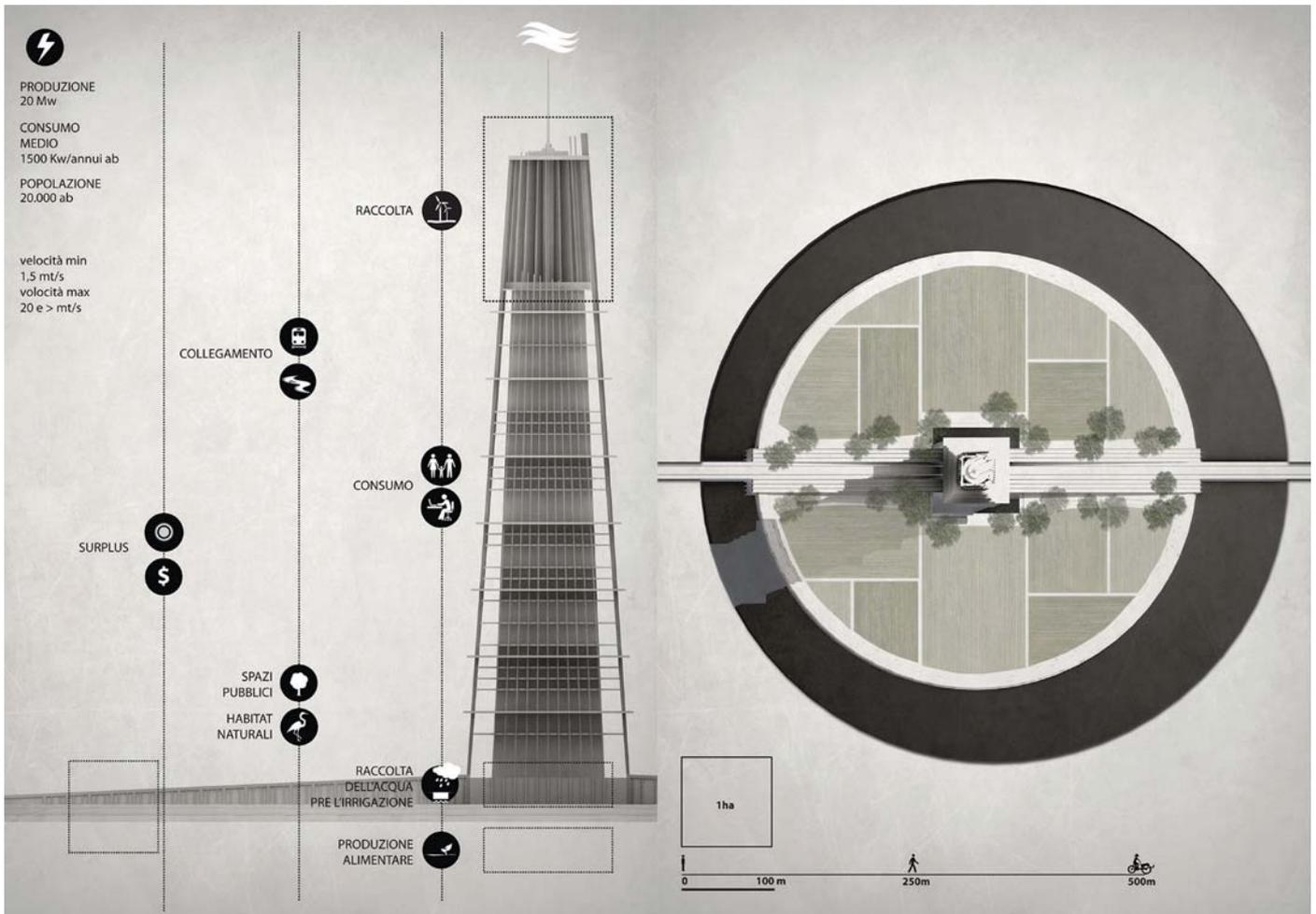


Figure 14. Rural area, typical system.

the very existence, a flood control projects will be initiated to not only protect communities but also to safeguard local energy production facilities. Soil excavated from the canal will be used for embankment reinforcement and enlargement. In this way local communities will be incentivised to settle near the water to take advantage of the proposed system. (Figs. 13 and 14).

*This article was awarded First Prize at the 2015 THE PLAN Best Paper Award contest. – Ed.*

## References

### ON VENICE

- Maretto, Paolo. *La casa veneziana nella storia della città: dalle origini all'ottocento*, 3<sup>rd</sup> ed. Venice, It.: Marsilio, 1989.
- Molledo, Guido. *Welcome to Venice*. Venice, It.: Consorzio Venezia Nuova, 2007.
- Tentori, Federico. *Imparare da Venezia*. Como, It.: Officina, 1994.
- Salvadori, Antonio. *Venice: Guide to the Principal Buildings, History of Architecture and Urban Form*. Venice, It.: Canal & Stamperia, 1995.
- Trincanato, Egle R. *La casa veneziana delle origini ed altri scritti sulla casa veneziana*. Venice, It.: Edizioni Stamperia Cedit, 1999.

### ON CHINA

- Carroll, Peter J. *Between Heaven and Modernity: Reconstructing Suzhou, 1895-1937*. Stanford, CA (USA): Stanford University Press, 2006.
- Chen, Congzhou. *On Chinese Gardens. Translated by Xu Zengtong*. Shanghai: Tongji University Press, 1984.
- Esherick, W. Joseph ed. *Remaking the Chinese City: Modernity and National Identity, 1900-1950*. Honolulu, HI: University of Hawaii Press, 2000.
- Ferguson, James R. "Suzhou: A Cultural and Economic Centre of Southern China." *Culture Mandala: The Bulletin of the Centre for East-West Cultural and Economic Studies* 3 (2): article 8, 1999. Available at: <http://epublications.bond.edu.au/cm/vol3/iss2/8>.
- Gazzola, Luigi. *La casa della fenice: la città e la casa nella cultura architettonica cinese*. Rome: Diagonale, 1999.
- Golany, Gideon S. *Urban Design Ethics in Ancient China*. New York: E. Mellen Press, 2001.
- Guo, Qinghua. *Chinese Architecture and Planning: Ideas, Methods, Techniques*. London: A. Menges, 2005.
- Huang, Lei, Xiao Di Zhu, and Xinsheng Zhang. "Housing Development in the Context of the Modernization, Urbanization and Conservation of Chinese Traditional Cities: Beijing, Shanghai and Suzhou," unpublished Doctor of Design Thesis. Cambridge, MA (USA): Harvard University, 2000.
- Keswick, Maggie. *The Chinese Garden: History, Art and Architecture*. London: Academy Editions, 1986.
- Lynch, Kevin. *The Image of the City*. Cambridge, MA (USA): M.I.T. Press, 1960.
- Pang, Wai Ki. "Urban Morphology of Traditional Chinese Cities in the Context of Modernization: A Case Study of Suzhou." 42<sup>nd</sup> ISOCARP (International Society of City and Regional Planners) Congress, 2006.
- Prentice, Kaplan H. *Suzhou: Shaping an Ancient City for the New China: An EDAW/Pei Workshop*. Washington, D.C.: Spacemaker, 1998.
- Xiaolong, Luo and Jianfa Shen. "Why City-region Planning Does not Work Well in China: The Case of Suzhou–Wuxi–Changzhou." *Cities* 25, no. 4 (2008).
- Xu, Yinong. *The Chinese City in Space and Time: The Development of Urban Form in Suzhou*. Honolulu, HI: University of Hawaii, 2000.

## Credits

Graphic works by Andrea Degli Angeli, 2014.

## Acknowledgements

This article was developed from the author's Final Thesis at the IUAV, Istituto Universitario di Architettura in Venice (Italy), presented in March 2014. The preparatory study and research for the thesis were done under the supervision of Prof. Benno Albrecht.

**Andrea Degli Angeli** has received his professional degree in architecture from the IUAV, Istituto Universitario di Architettura in Venice (Italy), where he specialized in sustainability, with a focus on the relationships between architecture and sustainable urban planning. His studies focused on resource management, sustainable development and the architectural uses of combined high- and low-tech applications. Andrea is now based in London, where he works for Foster and Partners as an architect. He is a member of ARB/UK since 2015. E-mail: [a.degliangeli@hotmail.it](mailto:a.degliangeli@hotmail.it)



# Urban Hacking. A Nobel Project for the Redundant City

URBANISM

conrad-bercah

*ABSTRACT - In 1963, Constantinos Doxiadis, Buckminster Fuller and Marshall Mc Luhan signed, among others, the little known "Delos Declaration," which alerted the world that the "problem of expanding urban area may soon outstrip all other problems facing mankind, except that of nuclear war." In the year 2016, it is clear to most that the "urban meltdown" has indeed outstripped "all other problems facing mankind, 'including' the possibility of nuclear war" and the reality of the financial meltdown, of which it is a direct result and from which there is no U-turn. How can we assure that modern cities develop a regenerative relationship to the living world on whose health they ultimately depend?*

*The current scenario is dominated by the Redundant City whose march cannot be stopped ex-ante. Staying clear of Renzo Piano's misguided (and falsely politically correct) rhetoric of urban mending, through "urban adjustments" we have a shot at trying to restore a sense of urbanity or "cityness" to constantly growing, shapeless conurbations. "Urban Hacking" argues for a new way to organize our urban systems, and for thinking and acting beyond what is considered "sustainable" development. Urban Hacking aims at establishing a healthier relationship between Natur and Kultur. The theory sponsors a new attitude towards urban matter based on little talked about modus operandi like demolition, recycling, multi-scaling and urban hacking.*

*Urban Hacking may eventually lead to a Dörfer-Großstadt (metropolis of villages), namely an adjustable planning concept to counter the various redundancies of our time.*

---

**Keywords:** Berlin, bigness, redundant city, smart city, urban meltdown

---

Be it wild urbanization or depopulation, urban phenomena seem to be generating tacit - and unsubstantiated - general agreement. Be it because they happen on such a grand scale, everyone seems to think they can only be handled by resorting to two all-pervasive rhetorics: the rhetoric of the large scale – Bigness - and the rhetoric of the smart city. Taken together, they seem to be forming a new urban species for the third millennium (MMM) being implemented at the global scale: “the Redundant City.”

Is it credible that the sheer size of urban matter and its alleged increasing smartness has led everyone - including architects - astray?



Figure 1. Dörfer-Großstadt.

## MMM PROBLEM

In the MMM it has become clear that architects have simply stopped imagining (or reflecting upon) livable urban growth models, arguably because Bigness itself—by virtue of its sheer “encumbering presence” - has closed the door to any other kind of urban thinking. Architects, urban thinkers, urban doctors, highly trained and highly paid professional urban consultants (the academia at large) appear to be happy taking comfort in filling the intellectual void by gathering intelligence - bad big data - on the so-called Urban Age or by digitally mapping uninteresting data, such as traffic behavior or phone access, that reveals more about the apps themselves than about urban matter. Bigness and smartness have become post-facto wisdom, in spite of being based on no wisdom at all.

The whole design discipline appears to have fallen under the spell of the *post-facto* wisdom typical of the financial world: it can never foresee a crisis but has to gather an arsenal of “logical arguments” to explain any crash, be it a financial or an urban meltdown. Engaged in a variety of nihilistic sideshows, two entire generations of architects and urban planners have proven incapable of confronting extreme social and economic events, which, uncannily, have actually offered the potential of transforming the persistent structural weaknesses of their chosen professions into opportunities.

The absence of theoretical inquiry on how urbanization performs, or should perform, suggests that all (theory-based) resistance to the upcoming *tsunami* of known and unknown urban substance has vanished. The large-scale urban meltdown has turned into a pre-theoretical dimension: Bigness. But Bigness is not generating operative theoretical speculation that can counter it, in spite of being, in theory, the one topic that should spark the endless array of intelligence that is supposed to characterize the various professional fields revolving around urban matter. How did we get to this?

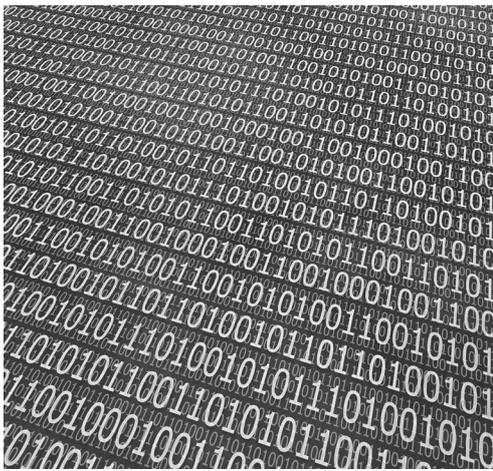


Figure 2. Data.

## URBAN BIG BANG

In 1914 Europe as a whole precipitated into a full-scale war triggered by reasons that still today, one hundred years later, are not agreed upon. Brought to an end by the first Communist revolution (Russia) and the first military surrender based on no military reasons (Germany), the first European war from 1914 to 1918 unleashed the full force of a rapid “first modernization” fuelled by a seemingly endless list of technological breakthroughs. The latter opened the door to a mad urban explosion - a Big Bang? - reflecting a silent international competition among the world’s most developed nations all seeking to house the largest metropolis of the day.

The first randomly scattered seeds of Bigness generated a new, unknown physical species, an arrangement of collective human life credited to be able to rationally solve most of the problems related to urban life and/or urban matter, which, in turn, was assumed to work best if not limited in size or, better still, in the size of its “administration.” For a while, meaning the better part of the twentieth century, unlimited urban expansion seemed to be a typically Western phenomenon, a phenomenon for the Old and the New World (the USA). Yet, in 1991, the seemingly peaceful ending of the seventy-plus years of the Soviet ruling experiment effectively put an end to Cold War beliefs and assumptions, while generating the illusion that “history,” as people knew it, was ending.

The 1991 event created new waves of “thoughtless optimism” in the West due to a newfound, self-appointed sense of superiority. It simultaneously signaled that the “buildable field” was wide open and that it was eager to embrace the glorious, triumphant march of a number of Western-concocted financial (and urban) strategies and beliefs. Two examples: the notion that there was plenty of space for everyone and the idea that, should space shortage become a problem, one could always invent new virtual fields inhabited by newly designed avatars.

The Eastern worlds (Far and Near) swallowed the “open-field theory” hook, line, and sinker. They too started forming urban incrustations in the field that were so wild that even the West, before partaking in the same game, had to go through various layers of psychoanalytical work to effectively remove any sense of guilt or ill-directed pride.

2001: Ten years after Moscow’s alleged “transition” into the wildest sphere of (instant) high capitalism, Steve Jobs, the widely, ex-post elected “philosopher of the twenty-first century,” launched (in less than nine months) iTunes and the iPod. Embedded into both applications was the assumption that a right to easily available, cheap, and portable “smart fun” was to become the daily priority of (rural and urban) citizens of the world, regardless of their chosen occupations.

## DIGITAL FUN

The MMM kicked off under the assumption that anything was possible and everything was about to be ameliorated or “fixed.” All this could be done having a lot of “digital fun”: the kind of fun that could be had by the sheer means, not the end, of any given activity.

Machiavelli’s terms got switched. The new digital credo (smartness) effectively convinced most everyone that, in the grand scheme of things, what exactly is to be improved is not that important: what matters is being able to change things, maximizing efficiency. The MMM’s new agenda followed suit, putting the focus on the mechanics of the tool (or platform), rather than on substance, any substance.

Technological evolution makes fixing things easier, cheaper, and harder to resist. It is a highly disorienting and intoxicating drug that makes people believe they are living in an exceptional, revolutionary time. They think they are holding the key to its unfolding, while building temples of modern-day Taylorism in which everything is tracked, analyzed, and optimized. Everything can now “be fixed” by all kinds of cheap digital fixes. There is no point in bothering about the true costs of fixing things, or in factoring in the real (anthropological) costs of the highly anticipated tyranny of the social and digital Eden of an intellectually diminished “augmented reality.”

The sheer awesomeness of the available digital tools has led the silent majority astray: “I do it because I can.” The possibility of doing something

prevails over real needs, increasingly convincing everyone that it is necessary to rid public life of inconsistencies and imperfections, as a seemingly endless number of TED talks testify.

Good is not good enough. One is expected to thrive for perfection, which is just a few clicks away. Oblivion of human finiteness is now a dime a dozen today: it does not matter if one works in Silicon Valley or North Korea.

### IT IS JUST THERE!

The first decade of the MMM is the first decade in world history in which the Internet became a permanently available tool for quick and easy (and never wrong) explanations and solutions. In the second decade, digital solutionism and Silicon Valley's tendency to solve problems it has itself fabricated (or simply do not exist) has become the new *über*-ideology. It updates Prince Minsk's heartfelt belief: it is now assumed that an algorithm, not beauty, will eventually save the world.

One is somehow not allowed to think about the pre-Internet world. To look for a possible way out is to buy a one-way ticket to irrelevance or public ridicule. Trying to imagine the world in its pre-Internet state has become pointless, unless one has suicidal tendencies or simply wants to be labeled as nostalgic, reactionary, anti-modern, or worse. What? Are you not being interested in being invited to the next Google (or Apple) press conference? Digital measurement, mercification, increased efficiency, solutionism, data, and minority dictatorships are now permanent fixtures of the MMM landscape. They have become the holy, democratic presence of the daily experience. They cannot be discussed as contingent, or as something that might go away or may prove to be potentially unhelpful, helpless, or mischievous.

The Urban Meltdown, too, is here to stay: it has happened. It has arrived: like the Internet, "it is just there." As strange as it might be that an endless series of cables—the Internet—is invested with manual-free, meta-narrative qualities, it is equally strange that the urban meltdown and its narrative (Bigness) have no operative guide. Basic questions, like "how do they work?" are best left unanswered, even if digital geeks are ready to acknowledge that "there is nothing permanent about the Internet." In the MMM Mind Twist it seems that theory and practice have no problem standing in stark contrast to each other, a stance that carries the not-insignificant-advantage of shifting away any debate about alternative models, such as, for instance, a small-scale approach to urban matter. Ideas that attempt to counter the status quo can be easily buried under an endless heap of digital garbage.

The project of ameliorating contemporary life can only be implemented by pushing technological development to its natural conclusion: self-tracking devices able to defeat obesity, insomnia, global warming, and, most of all, memory loss. Everything get stored, nostalgia has no chance. (Proust will pardon humankind of the MMM.) One's life is permanently available on

some digital cloud a few clicks away and can be indefinitely retold, changing the narrative or the angle for the benefit of posterity. Digital participation, in the form of blogging, is waiting at everyone's bedroom door.

The Urban Meltdown itself is soon likely to "vanish" from both the debate and public view thanks to all-recording glasses that will keep everyone busy or entertained. Self-driving cars will chauffeur the affluent to the restaurants TripAdvisor has selected by fishing from the lists ranked by best FB "friends," whom they have never physically met, courtesy of Google maps.

Streets will always be clean and shining. Some innovative, free of charge app will have convinced the entire population that its main goal is to accumulate bonus mileage for exotic, connected tropical islands through civic duty, like cleaning the portion of street that runs in front of their homes, which, like cars or glasses, will also have turned into smart, self-cleaning objects equipped with 24-7 video monitoring for social networking, courtesy of FB.

Everything will be customer-based, custom made depending on the mood of the final user: news, algorithmic book reviews, self-tracking devices, networking, chat-lines, recipes, books, magazines, and Hollywood movie endings. Nothing will go un-clicked or un-tweeted. The never-ending "digital" culture of (individual) fun has arrived. For good.

While Western philosophy has abandoned—even in France—the idea of providing one, unique answer to the big questions of human existence or grand philosophical systems, the Internet has become the one and only grand system. It has become the solution to all our problems by promising to rid our lives of any friction once and for all.

The Urban Meltdown and "thinking big" are mere "conditions" that are not supposed to deserve "thinking." They have been permanent fixtures of our mental landscape for almost a century now. They are a merely physical reflection of the financial logic of permanent, a-critical growth for growth's own sake.

The Urban Meltdown and "thinking big" are just a blueprint for permanent growth. They cannot be animated by small intentions. Their limitless masses rule out any risk-taking proposition. Like freedom on the Internet, they are assumed to have fallen from the sky. Their origin is not to be questioned, just their impact is worth studying.

### MMM QUESTIONS

Aside from ridiculing it, there is little one can do about the Redundant City beyond trying to redraw the lines of the intellectual argument about digital omnipresence and omnipotence. This, perhaps, may show the possibility of other, post-Internet angles from which to approach the problem of urbanization, as the promised Silicon Eden may turn out to be not worth the price of the one-way ticket necessary to reach it.

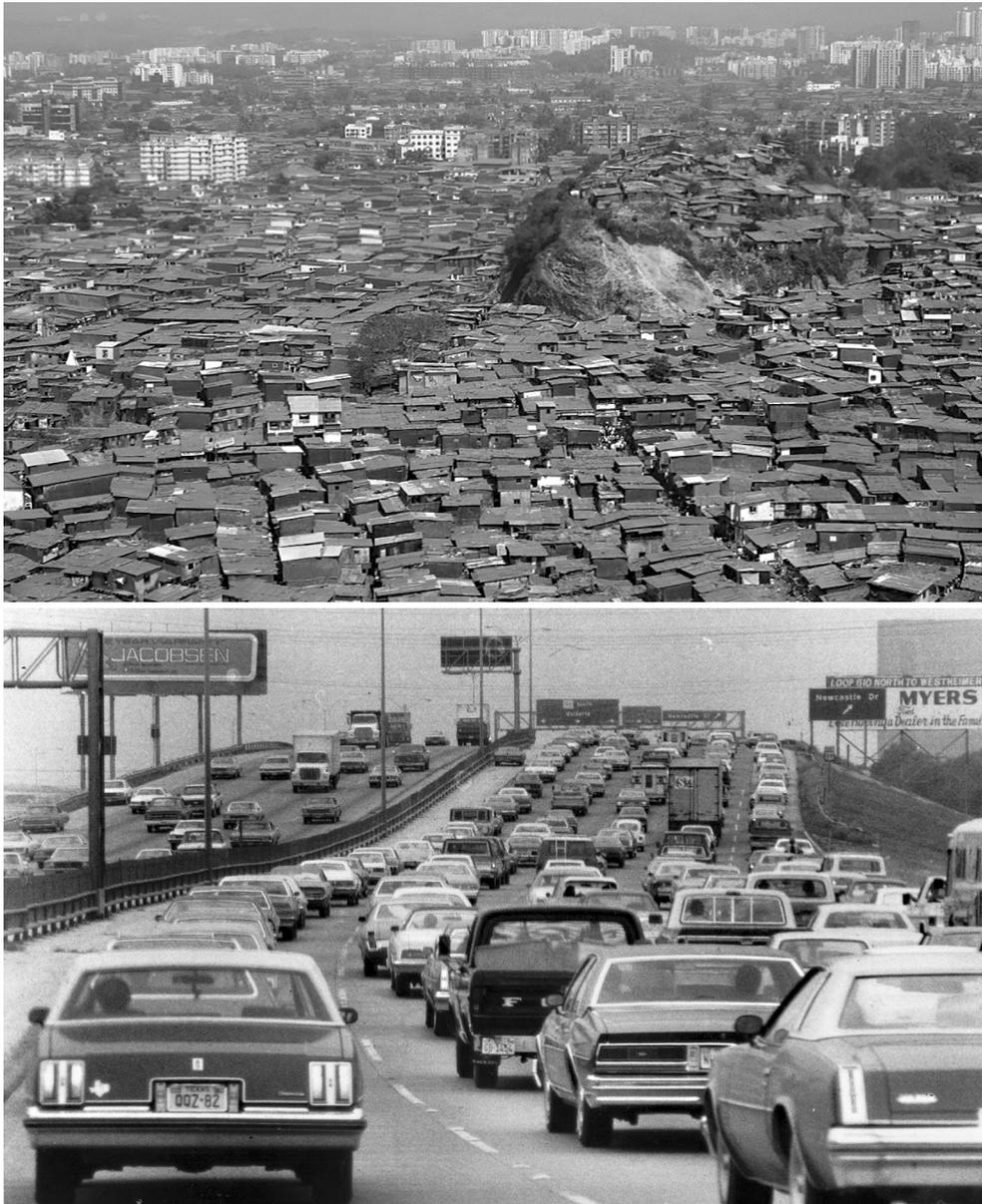


Figure 3. Periphery.

It remains important to try to secularize the debate about the relationship between technology and urban development and to cleanse it of its various, pernicious, financial and intellectual misunderstandings. It also remains important to counter the need to reach for the answers before the questions have been fully asked. Or to investigate problems rather than presuming them, putting aside the tempting possibility of immediate and cheap results.

Investigating means exercising a practice of resistance, producing radical reflections on society and demonstrating the irreducible anarchy of the human being vis-à-vis the apparatuses that are increasingly regulating its life in a seemingly irreversible (and pervasive) fashion. Investigating means putting a buffer between ourselves and the fake optimism of marketing, the good will of newspaper, or the private masked as public. It is also essential to resist the integrated spectacle (Guy Debord) that is now a permanent, ubiquitous fake presence of the daily (global) experience, a presence that can fabricate consent and level contradiction, making it almost impossible to go beyond stale, accommodating, partial, cunning formulas hidden behind meaningless twisted logic.

Much like the integrated spectacle (or the Rolling Stones), the urban meltdown “can’t get no satisfaction.” Its consumerist logic only allows temporary relief that—like industrial food devoid of nourishment—paves the way for its next act while it is happening. We keep consuming (eating?) soil as if it were barely edible, unsatisfying industrial food. The key challenge of the present, therefore, is to ask questions. Asking questions has become more important than providing answers, because, in the era of nihilism, it is the only act left that can claim a foundation. If we start asking the right question, perhaps we can provide an answer to the current nihilism of soil consumption. Perhaps we can avoid looking



Figures 4a/4b. The redundant city.

like a blindfolded boxer who might eventually manage to place a few good punches but, in truth, cannot see where his opponent is going. A basic question emerges: should one find a way to urbanize technology or should one accept the transformation of urban matter into one, big, permanent technological testing ground?

#### TESTING GROUNDS

Urban matter has become the main target—a strategic space—for testing computer-based technology expressed by apps of infinite nature. But if we take our blindfolds off, perhaps we'll start to realize that

urban matter is not comparable to cars, phones, watches, glasses, or whatever object now nostalgic of its lost simplicity. The rhetoric of the smart city just assumes that cities can be as “smart” as a phone. But it is very well known that urban matter, much like architectural matter, is the opposite of smart or simple. It is actually quite dumb, complex, and anarchical, much like the human beings who are responsible for its inception. Urban matter is a complex, anarchic, and irrational matter that can’t be anything but incomplete given that it is built and used by flawed users—human beings—who cannot be compared to digital apps. Its very incompleteness is what allows its own resilience; it is what permits the formation of its many inner *limes* (frontiers) and the different scales housed within its perimeter. It is only by taking into account this complexity that one may look for the most appropriate “scale for action,” in seeking alternatives to the impossible smartness of the Redundant City.

ANTI-IDEALISM

Perhaps the complex aspects of urban matter are best exemplified by the urban structure of Berlin, which emerges today as an extraordinary anti-ideal, non-western exemplar (something that is appreciated only with the senses) that is also an *exemplum* (a form whose interpretation requires intellectual speculation). It is an example of how, livable urban matter, to be truly livable and enjoyable, should be proud of its distinct *limes*, its numerous scales, and its varied technological dumbness.

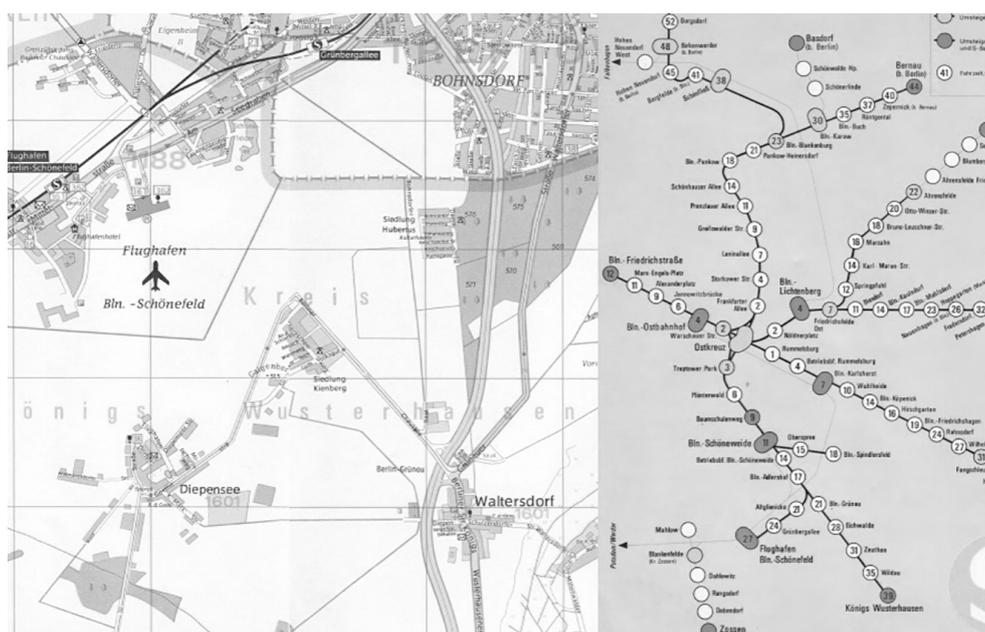


Figure 5. East Berlin maps.

Berlin's urban structure stands out because the texture of its urban fabric incorporates a number of elements that are precious in creating living conditions that resonate with basic human needs. These elements suggest a latent, larger alternative interpretation of how urbanity can be achieved. The elements are able to generate casual design principles that never have the intention of becoming "ideal" prototypes as they are always, rigorously site-specific. This makes one read Berlin as a unique anti-ideal, geo-political urban form, able to evoke potential or even pregnant geographic and political scenarios.

Its urban structure reads as an alternative idea of what urban matter should be: a casual, romantic, multi-polar aggregation of individual and self-sufficient "islands," or *dörfer* (villages). This aggregation lacks a center and therefore a "periphery," or the place where all urban evils seem to have gathered - if the intelligence gathered by the academia is to be trusted.

### UNICUM

A Berlin paradox is in place: a conurbation that is the result of a series of political, economic, and historical circumstances that proved crucial for the recent history of the West itself now stands outside of Western tradition, at least as far as urban *exempla* are concerned. Berlin stands out as a "unicum" in the spectrum of Western urbanization.

Several demolition sprees (caused by war's destruction and the clearing of the rubble) managed to produce collective despair in Berlin for a prolonged time, a half a century. But somewhere between these various waves of despair, they brought about a unique, "unplanned urban landscape,"

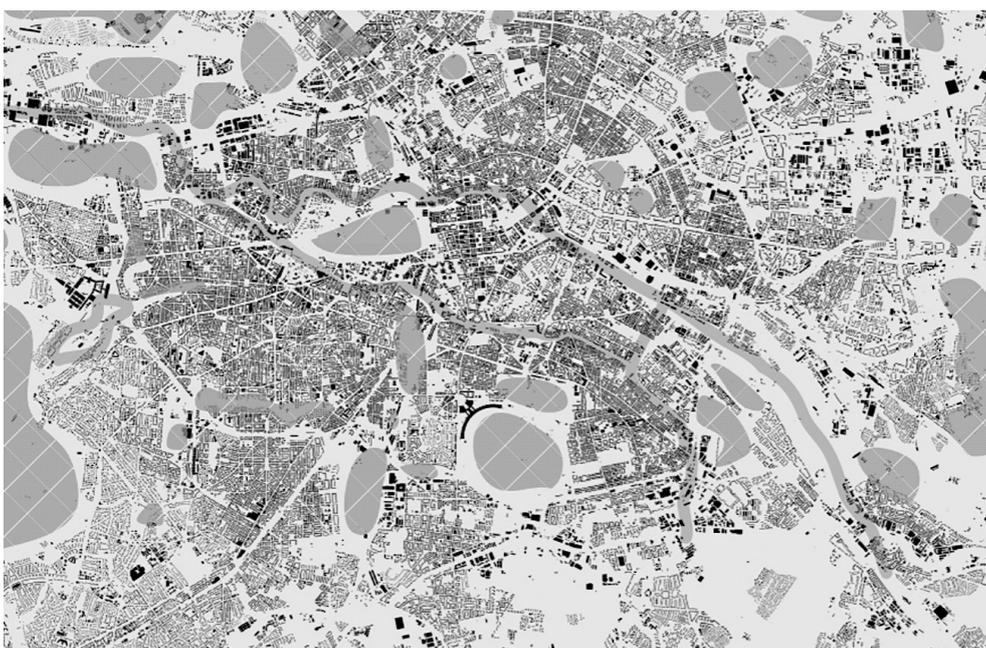


Figure 6. Berlin voids.

formed by vast tracts of empty space with isolated buildings here and there, casually displaced. It is a landscape that does not rely on large-scale urban planning but on the casual accumulation of formally distinct urban episodes, micro-cities, or mid-size “towns” sitting in a vast (and intimate) unused space.

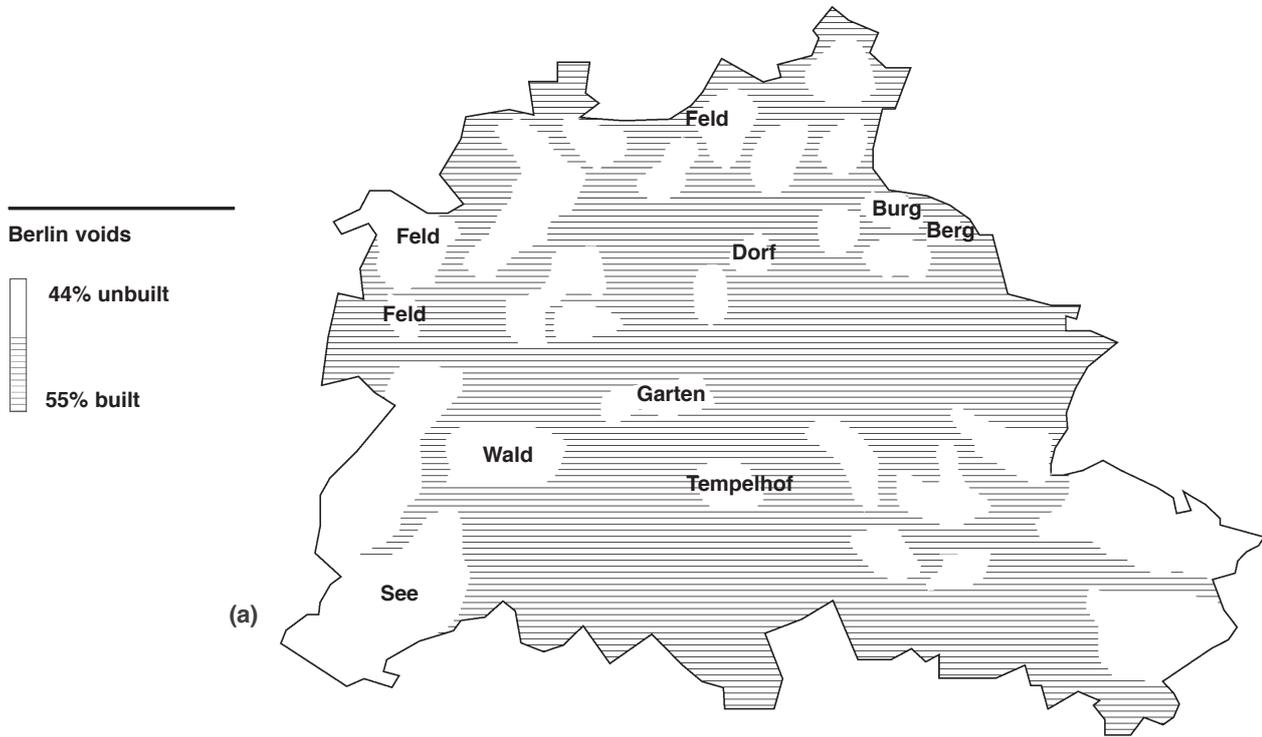
Berlin’s urban structure appears deeply skeptical not only about the possibility but also about the theoretical merit of putting in place an overarching urban plan. Berlin’s implicit project for urbanity is tactically open to the multiplicity of its territorial circumstances, even if its individual parts (islands, or *dörfer*) are resolute in their formal appearance. It is an urbanity that can be read as an exemplar territory taking full advantage of its geographical conditions.

### *DÖRFER-GROBSTADT*

From a strictly urban angle, Berlin is a non-Western island that lies inside of the so-called Western Europe. Berlin appears as a physical and geopolitical island. Its (theoretical) island status is the sum of a number of physical urban islands whose “islandness” may prove to be the last, true opportunity that urban speculation has for developing its culture in an enjoyable, livable fashion. Berlin shows how the notion of “islandness” and urban archipelago can be used as conceptual tools for a broader understanding of urban development. Berlin can in fact be defined a *Dörfer-Großstadt*: an archipelago of built and unbuilt islands - open spaces, parks, canals, forests, lakes, in-between spaces, space of the third landscape - that have independent and complementary mutual relationships and that, taken together, form a unique ecology of what the urban landscape might (should?) look when seen at a regional scale. With the exception of the Innenstadt (city center), which fell victim to the 1980s *Stadtreparatur* (urban repair) logic theorized by Josef Paul Kleihues for the IBA (Internationale Bauausstellung – International Building Exhibition) and later implemented in various versions by short-sighted administrative bodies (like the Berlin Senate), Berlin’s ecology is based on the notion of “multi-scaling” or of recognizing that city-related ecological conditions operate at various geographic scales and that, in consequence, “urban ratios” have to be set.

### URBAN RATIOS

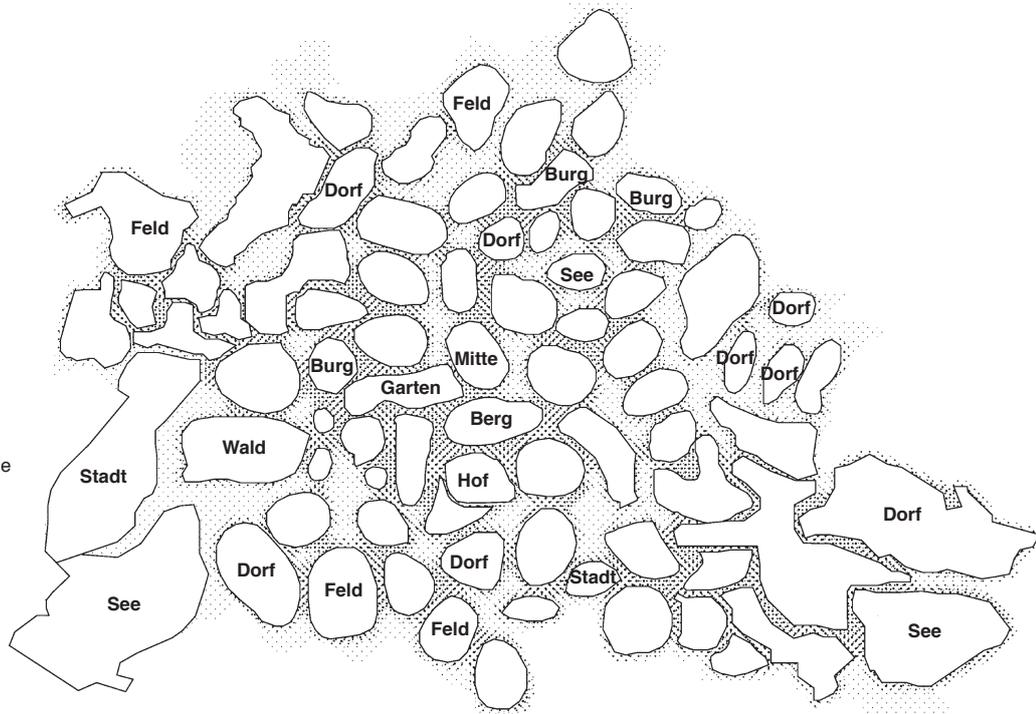
Contrary to the impersonality of Bigness, this multitude of scales is made evident and is recognized by its residents, who describe themselves as citizens of the *bezirk* (district) in which they live rather than of Berlin. This visibility is due to a specific, anthropological way of understanding infrastructure, which is treated at the local and regional scale simultaneously. Air quality, water pollution, social services, public transportation, noise control, green areas, and commercial venues have to meet local and regional standards calibrated on the number of residents in each district/municipality.



## Berlin’s urban organs: Berg, Burg, Dorf, Feld, Stadt, See, Wald

**Berlin Zaune:**

- Berg** Falken-Berg  
Kreuz-Berg  
Lichten-Berg  
Prenzlauer-Berg  
Schöne-Berg
- Burg** Blanken-Burg  
Charlotten-Burg  
Warten-Burg
- Dörf** Bies-Dörf  
Bohns-Dörf  
Heller-Dörf  
Kauls-Dörf  
Marien-Dörf  
Mahis-Dörf  
Rahns-Dörf  
Reinicken-Dörf  
Zehlen-Dörf
- Feld** Blanken-Felde  
Falkenhagener-Felde  
Lichter-Felde  
Marien-Felde
- Stadt** Gropius-Stadt  
Siemens-Stadt  
Wilhelm-Stadt
- See** Muggel-See  
Nikola-See  
Weissen-See
- Wald** Grune-Wald



Figures 7a/7b/7c. Berlin maps.

In the hour of triumph of increasingly smart (and impersonal) urban Bigness, in the hour in which everyone seems to be talking nonsense about the (non existing) option of controlling the megalopolis or the megaform, Berlin unequivocally affirms that the administration of urban matter can be successfully implemented by understanding the crucial importance of the small scale, like that of its various *bezirke*, which, on average, vary between 200,000 and 300,000 residents. Size does matter, and it should be considered the most strategic scale for action.

Berlin is an abstraction, a conceptual label that stands in opposition to the increasingly popular Westernized “Redundant City.” Berlin is simply the name used to identify not a city of 3.5 million people, but an archipelago of twelve towns (*dörfer*) or of ninety-five *Kieze* (localities) of different size. Berlin is governed according to certain, simple, pre-tech urban ratios that do not seem to have the need of being transformed into some savvy app. These ratios are also based on distance, multi-scaling among building, open areas, urban infrastructure, citizens’ needs, and the diverse, often non-urban terrains and domains onto which urbanity projects its effect. The Berlin ratios have not surrendered to technologies, engineering, contracts, manufacturers, politicians, or international corporations. They keep delivering an urban landscape aligned with walkability—or personal health—as primary goal: 30 m<sup>2</sup> of green space per dweller.

## MULTI-SCALAR THINKING

Berlin demonstrates that there are physical limits to what we call urbanity and that a multi-scalar (not global) scale is the most strategic plane on which one can operate.

Multi-scalar thinking may perhaps turn out to be the most strategic plane on which one can operate. A change of scale often results in new relationships and interactions.

Multi-scalar thinking acknowledges the fact that different national, regional, and local policies are needed in different places of the same conurbation, depending on the features of the specific landscape.

Multi-scalar thinking treats urban matter not merely as the sum of its aggregated part, but as a greater, far more complex aggregation of events, of circumstances or features, such as density, for example, which has simultaneously both a small scale and large impact on its very fabric.

Multi-scalar thinking acknowledges that, beyond a certain scale, urbanity turns into urbanization or an impersonal, generic accumulation of brainless, yet comatose, urban matter. A city without quality, or without “cityness.” Can this be turned into a formula?

Multi-scale = urbanity            Large scale = urbanization

## URBAN HACKING

Multi-scalar thinking implies a latent alternative ecology that, like all ecologies, relies (in theory) on *ex-ante* planning. Yet, as it has become abundantly clear to anyone who can still use their own eyes, the current scenario is dominated by a new kind of city (the Redundant City) whose inexorable march cannot realistically be stopped *ex-ante*.

*Ex-ante* planning is no longer an operative option for architects, planners, or administrators. What it is available, without resorting to apocalyptic scenarios, is *ex-post* alterations, or “urban adjustment,” trying to restore, at least in the most acute cases, a sense of urbanity or “cityness” deprived of some of the distorted logic of the financial world.<sup>1</sup>

Perhaps urbanization can be effectively *ex-post* “corrected” by resorting to “urban hacking,” or to a Nobel project that can limit the seemingly unstoppable march of the Redundant City, that urban hackers may find attractive.

Hacking is the activity of the “hacker”: an individual busy taking on intellectual challenges apt to creatively overcome limitations and restrictions imposed by self-nurturing, hostile systems.<sup>2</sup>

Urban Hacking is a concrete, pragmatic strategy. It is neither utopian nor dystopian. It is an effective, operative *modus operandi* that grows out of the acknowledgement of the following observations.

1. In many places, the combination of unused recent urbanization and an aging population is creating unprecedented portions of redundant



Fig. 8



Fig. 9



Fig. 10



Fig. 11

Figures 8, 9, 10, 11. Berlin post war debris.

urban matter: many structures are being abandoned but they still occupy urban land.

2. On average, at least 10% of the built matter everywhere is either so disgusting it is uninhabitable, or simply redundant, and is therefore not used. Existing pockets of masked emptiness already exist but remain hidden in an obnoxious and disordered built amalgam.
3. Many parts of the Redundant City are based on an incomprehensible geometry that most users fail to understand, from the temporary to the permanent, from the “documented” to the “undocumented.” Urban matter could be reduced for the benefit of the geometric design of the negative (empty) portion of the urban texture that makes the positive (filled) readable—or manageable. At least 10% of most urban conurbations could conceivably be demolished to give city dwellers urban matter defined by something other than buildings alone.
4. Demolition is part of the life cycle. Urban matter is no exception. Demolition reboots urbanity and the minds of so many “city experts” who have spent so much time producing new urban planning they have lost sight of their work’s final goal. As Steve Jobs himself put it: “Remembering that I’ll be dead soon is the most important tool I’ve ever encountered to help me make the big choices in life. Almost everything - external expectations, pride, fear of embarrassment or failure - these things just fall away in the face of death, leaving only what is truly important. (...) death is the destination we all share and that is how it should be, because death is very likely the single best invention of life. It’s life’s change agent. It clears out the old to make way for the new.”
5. The scrapyards are a place like many others. The scrapyards make room for a decentralized, distributive, open, shared, asymmetrical, and emphatic option for urbanity, allowing the territory to breathe, providing an option to indiscriminate land consuming.

#### A NOBEL PROJECT FOR MMM URBANITY

Much of the literature about urban sustainability is based on the damage the environment has suffered, without clear, effective operative actions. The above observations entail a new course of action: a Nobel Project to limit the Redundant City based on six simple theorems.

1. Varying percentages of the “not-used” city could be selectively torn down, putting an end to its misery or agony. This would create (via demolition) new un-built islands or towns (*dörfer*) that, in turn, create value for everyone involved in the development of urban matter: investors, the administration, the real estate market. The selective



Figure 12. Berlin *Trümmerbergen* (artificial hills of debris).

reduction of urban matter aims at creating some badly needed “pockets of emptiness” that can become instrumental in defining a *Dörfer-Großstadt* in which a suffering population may enjoy the breathing space of a truly sustainable urbanity rather than suffocating in its ultimate demise.

2. By applying selective demolition, clear geometric administrative and human lines can be identified within the urban fabric. Selective demolition makes it clear that urban fabric is not a container or a bounded closed unit, but a multi-scalar system through which multiple cross-border economic circuits circulate. Multi-scalar thinking suggests that living in urbanized areas is a “border-crossing experience,” navigating from one island to the other.
3. The *Dörfer-Großstadt* is also an “administrative model.” It defines a new collection of “towns” that, individually, form a neighborhood, a community; in short, a multitude of languages sharing a zip code—an urban island. The *Dörfer-Großstadt* is based on the individuality of the different building units of the different “islands” that, as in a virtual network, depend upon the mutual interaction between the different single members.
4. Selective demolition makes it easier to find greater balance between the verticality and the horizontality of the urban landscape. The *Dörfer-Großstadt* does not preclude “densification.” Dense structures can actually be inserted at critical infrastructure nodes. It is an option that reflects the diverse dynamics of the systems at play in the body of urban matter.
5. Demolition does not have to turn into an unsustainable economic nightmare. Pockets of technological dumbness should be created within the existing urban fabric. Rubbles can be piled up to artificially create natural landscapes on the very site where demolition is done. These areas can become pockets of technological dumbness able to provide a pause in a redundantly hyper-connected smart city. The German *Trümmerbergen* from World War II provides a spectacular, convincing precedent in this regard, indicating the way.

6. At key locations, demolition could also invest anything inside abandoned buildings that is structurally redundant, or not load-bearing. This could turn these already existing structures into “new, open plan, covered spaces” available to the public for social gatherings, urban expositions, urban theaters, and the like.

Western urban science has developed on the assumption that the number one issue of urbanism is the act of building. It does not take into account the spaces between buildings. The time has come to use more resources for the well being of the void, rather than the solid. By giving greater importance to the design of the void, we might be able to contain the solid. *Bâtir san bâtir* means starting to “build” the landscape in-between the solids, demolishing the solid in accordance with a master plan that values the void over the solid.

The time has come to put the Redundant City to rest. For good.

#### POST-SCRIPTUM

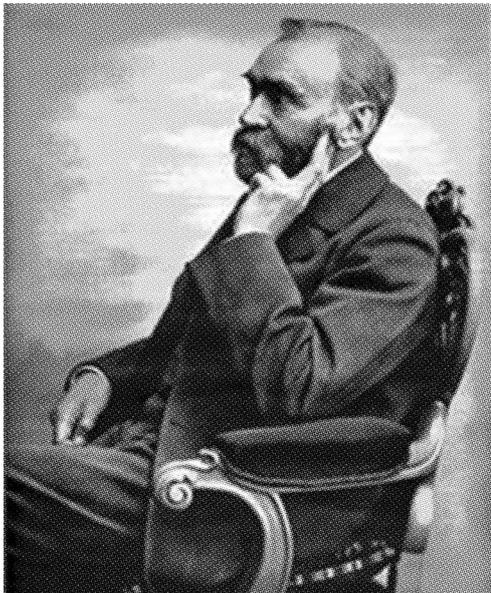


Figure 13. Alfred Nobel.

Alfred Bernhard Nobel is the Swedish chemist and engineer who held 355 different patents, dynamite being the most famous. In 1888 Alfred's brother Ludvig died while visiting Cannes, and a French newspaper erroneously published Alfred's obituary, which is said to have brought about Nobel's decision to leave a better legacy after his death. The obituary read “*Le marchand de la mort est mort*” (The merchant of death is dead) and went on to say that “Dr. Alfred Nobel, who became rich by finding ways to kill more people faster than ever before, died yesterday.” Nobel immediately understood how he would be remembered and,

consequently, on November 27, 1895, he signed his last will and testament and set aside the bulk of his estate - 31,225,000 Swedish kronor (equivalent to about 250 million US dollars) - to establish the Nobel prizes to be awarded annually without distinction of nationality. A year later, on 10 December 1896, he had a stroke in Sanremo, Italy, and passed away. The Nobel prizes are awarded for eminence in physical science, in chemistry, and in medical science or physiology. There is a fourth prize for literary work “in an ideal direction” and fifth to be awarded to the person or company that renders the greatest service to the cause of international fraternity, in the suppression or reduction of standing armies, or in the establishment or furtherance of peace.

The phrasing for the literary prize given for a work “in an ideal direction” has caused a great deal of confusion since the start. For many years, the Swedish Academy interpreted “ideal” as “idealistic” and used it as a reason not to give the prize to important but less Romantic authors, such as Henrik Ibsen and Leo Tolstoy. This interpretation has since been revised and the prize has been awarded to authors who are not representative of literary idealism.

In 2001 Alfred Nobel’s great-grandnephew, Peter Nobel, asked the Bank of Sweden to differentiate the award given to economists “in Alfred Nobel’s memory” from the five other awards. This has caused considerable controversy about whether the Bank of Sweden Prize in Economic Sciences in Memory of Alfred Nobel is actually a “Nobel Prize.”

I believe that all of the above will convince others, other than me, that it is time to ease the political or artistic tension surrounding Nobel’s name, and to call for the establishment of a true Nobel project, one that is more in tune with the well-deserved aura of the mythical inventor.

*A previous version of this article was awarded Second Prize at the 2015 THE PLAN Best Paper Award contest. – Ed.*

## Notes

1. The anarchic, deeply flawed status of urban matter, in which most of the planet finds itself, does not sit well with any logic of mending that, although possible, stands no chance of scratching the surface of the problem of urbanization. Thank you very much, dear Renzo Piano, but we are perfectly OK without your PC rhetoric.
2. "Hacking" is derived from the verb "to hack," which means to undermine, to make a dent in. In information technology, hacking can be defined as a set of methods, techniques, and operations aimed at understanding, accessing and modifying a hardware or software system. The person who "hacks" is known as a "hacker": someone who takes on intellectual challenges to creatively circumvent or get past the limits imposed on him/her, not only in his/her field of interest, but in every aspect of life. There is a cliché, which has been used primarily by the media (since the 1980s), with which "hacker" has been associated with cyber criminals, the correct label for which, however, is "cracker." Although the term is used primarily in relation to information technology, hacking is not limited to a specific technical field. More generally it refers to any situation in which one uses creativity and imagination in the search for knowledge: Leonardo da Vinci, for example, might be considered a fifteenth-century [hacker](#).

**conrad-bercah** is the author of *Dörfer-Großstad*. conrad-bercah is an architect, architectural/urban thinker and the founding director of c-b-a, content for bare architecture, a Berlin-based architectural practice focused on defining a contemporary a-b-c in architecture, expressing the bare life of architectural form stripped of the prevailing rhetoric of the day. conrad-bercah is a graduate of the Harvard Graduate School of Design, where he has served as an instructor, fellow and visiting design critic. In 2013–14 he was a lecturer at the MIT Center for Advanced Urbanism and a speaker at several international symposia, including the TEDxLugano conference. E-mail: [c-b@c-ba.it](mailto:c-b@c-ba.it).

# The Transformative Power of Urbanism. The Urban Age Conference, Venice Biennale (July 2016)

CRITICISM

Brunella Angeli

*ABSTRACT - As the world population is increasing at unprecedented rates and wastelands are extending at a variety of new scale and in various spaces organizing the sprawling landscape, the line between formal and informal settings, God's eye view planning walled off from the outside world and temporary structures seems to intensify. There is an urgency to reverse such inefficient growth with its consequent inhuman conditions and better plan world's cities by means of urbanization. The Urban Age "Shaping Cities" Conference at the Venice Biennale (July 14-15, 2016) with the exhibition Conflicts of an Urban Age explored the connections among the political, economic and social city with the scale of its physical and urban form. Addressing themes such as expansion, redevelopment, adaption and confronting speakers and urban solutions from different backgrounds, the conference questioned the role of planning in the definition of more inclusive, safe, resilient and sustainable cities. The theme reconnects to Habitat III, the UN global cities summit set for Quito, Ecuador, in October 2016 implementing the New Urban Agenda for the world's rapidly urbanizing areas.*

---

**Keywords:** Habitat III, New Urban Agenda, sustainability, development, just city

---

By the year 2050 the world will double its rate of urbanization and two-third of the world's projected population of nearly 10 billion are expected to move to urban centers, even though cities today only cover 0.5% of

the world's total land area. This extraordinary process of urbanization - that will take place mainly in the developing world - will not only produce wastelands as cities extend and exurban nodes absorb the countryside, but increasingly sprawl slums with little or no access to basic services, threaten climate conditions, ecosystems and food security. It is clear that progressing at these speed, even the fastest-growing cities outside of the western world are grossly unprepared. While land consumption is already being considered by institutions, municipalities, policymakers and the public opinion, the future global conditions equally require a rethinking and new understanding of the quality of urban life in terms of social, rather than financial transactions. This entails connecting the political, economic and social city with its physical form and the scale of its urban growth. Urban Age "Shaping Cities," 16<sup>th</sup> conference by the LSE Cities center at the London School of Economics and the Deutsche Bank's Alfred Herrhausen Gesellschaft, held in Venice on July 14-16, 2016, explored these connections between the physical and the social world of cities. Introduced by Ricky Burdett (LSE Cities) and Paolo Baratta (La Biennale di Venezia), the conference was organized across two days, six sessions, featuring over 40 speakers, including mayors, planners, architects, academics and commentators from 25 cities. Namely, Urban Age also sets in the context of two major events taking place in 2016. The first is the *Reporting from the Front* exhibition for the 15<sup>th</sup> Biennale of Architecture curated by Alejandro Aravena, Chilean architect and co-founder of ELEMENTAL. The "Fronts" of the show are intended as the frontiers or challenges faced in the global world: the potential of materials and their recycle, social housing, reinterpretation of traditional building techniques and urban regeneration. Along these lines, the conference reconnects to the exhibition exploring how design ingenuity can react efficiently to inequalities, segregation and poor living conditions. The second event is Habitat III, the United Nation Conference on Housing and Sustainable Urban Development that will take place in Quito, Ecuador, on October 17-20, 2016. Held every twenty years, UN-Habitat's aim is to bridge design and politics in cities by shaping policy on the social, political and environmental future of human settlements. The sense of urgency is evident for Quito 2016. While Vancouver 1976 (Habitat I) and Istanbul 1996 (Habitat II) only outlined the mission for improving the future growth of the world's cities without specifically engaging with urban and environmental sustainability, this year's focus will be on planning and spatial design as a discriminating factor in making cities more livable, inclusive and sustainable.

• • •

Part of the Urban Age Program and jointly organized by LSE Cities and the Biennale di Venezia, the exhibition *Conflicts of an Urban Age* in the Sale d'Armi of the Arsenale explores patterns of urban growth between 1990 and 2015 documenting the transformation of fishing villages into megacities and asking how 5 billion urban dwellers can be accommodated



by 2030. Comparing case study cities such as Shanghai, Addis Ababa, London, Istanbul, São Paulo, Mexico City, Mumbai and more through film-based animations offering statistics and analysis of spatial, social and environmental data, the exhibition provides an in-depth understanding of the unprecedented speed and scale of this urban transformation.

In the fascinating setting of the Teatro alle Tese, the warehouses where the sails were stretched in the sixteenth century and made up of four buildings connected by large arches, the first session addressed the question of the ownership of the city. Ada Colau, the recently elected Mayor of Barcelona through the grassroots movement *Barcelona en Comu*, focused her speech on the right to the city for citizens. Through her own experience as an activist in the “Platform for People Affected by Mortgages,” she described how emotions of civic despair had been transformed into proposal for urban actions therefore claiming for a new “municipalism” based on citizens empowerment, social cohesion, ecological responsibility and a new negotiation between public and private sectors. Fiercely set through the first intervention, the panel continued in the same intense feel. Drawing from Saskia Sassen’s definition of the city as “a complex and incomplete system” which cannot be reduced to corporate sectors, she claimed that “cityness” today cannot be “raising density,” but inventing new means to secure space and a new housing market that don’t destroy the complexity and incompleteness of city dynamics. Arguing that public ownership does not guarantee public good, Paris Deputy Mayor Jean-Louis Missika discussed the need to target private urban projects to generate projects of public general interest.

Only through collaborative methods the commons can be given back to citizens, he added. During the following panel discussion, Ed Glaeser (Harvard) argued that common spaces, such as the street, do not need to be just defined but more precisely defended. For example, the problem with mega-projects developed by transnational property markets is not in their size but in the users they are devoted to - not modest people of modest means - that make the city less accessible. Anaclaudia Rossbach (Cities Alliance) pointed out how many global cities of the North and South face similar problems but they do not have the capacity to solve them alone, therefore marking the need of networks of cities. Yolande Barnes (Savills Real Estate) recalled that it is an old common habit to bring people to suburbia to disempower them, and this model becomes more controversial today because "there is not enough land to go around." During the following discussion, a number of questions were raised: whether it is possible to increase density without increasing costs, and whether cities today have more or less power. From the first session clearly emerged the need to lead more productive consultations between cities and their regions or states in terms of economic, housing and migratory policies and to develop possible alliances among cities sharing the same problems. A more precise idea of high density alternatives that differ from both Los Angeles and Hong Kong as a model for growth was only sketched in the final lines and left as an invitation for the next speakers.

The second session of Day One, "Expansion of Redevelopment," confronted the spatial consequences of the urban form and its planning over production and social inclusion. Joan Clos, Executive Director of UN-Habitat, opened the session describing how the large majority of new urbanization is taking place in the developing world. If urban population is exploding - he argued - urban consumption is growing even more. Left without guidance, this trend is destined to develop unproductive urbanization, while in setting the UN New Urban Agenda is gathering principles such as economies of agglomeration as a means to contrast inefficient urban sprawl. Mark Swilling (Stellenbosh University) showcased the implications of extreme urban expansion in South Africa. Shlomo Angel (New York University) critically provoked the session claiming that expansion and redevelopment are not a choice. Going further, he pointed out that population and income grow hand in hand as people getting richer tend to consume more and concluded that the current housing problem is actually a land problem. In the following panel discussion Enrique Peñalosa, mayor of Bogotá, Jennifer Musisi (Kampala Capital City Authority) and Serge Salat (Urban Morphology and Complex Systems Institute) discussed on the theme. While Peñalosa outlined the Bogotá case whose extremely high density needs to be mediated by actions of recycle and reuse thus prescribing a mix of expansion and redevelopment, Salat focused on the quality of the development in order to provide value. Like Venice, which was one of the most powerful cities



in the Medieval Mediterranean area, or Singapore, which was one of the poorest cities of Asia only fifty years ago, the most successful cities in the world are able to plan flexibility. If the idea that planners, municipal and national authorities should confront and provide guidelines to steer urban growth was agreed upon by the various panelists, the most challenging question emerged during the second session is where should we grow in terms of urban expansions. Also, specific examples of the ways in which urban forms can change course for the environment were suggested in order to make room for the new within the already built environment.

The last session of Day One was titled “Adaption and Social Integration”. Richard Sennet (LSE, NYU) framed his intervention around his definition of the “open city,” one with poor edges, synchronous space and incomplete buildings. He observed how the concept of identity is not fixed but evolving along with changes in the physical environment; in fact, the ethnic, political, financial diversities of urban residents are the stimuli that bring us to live in cities. Nigh impossible to avoid reference to the recent Brexit referendum, Sennet commented that the greatness of cities is also that people tolerate and feel comfortable living with the unfamiliar, diverse and complex, something more demanding to achieve in the provinces. Presenting her work on migrant streets across the UK, Suzanne Hall (LSE) illustrated how a super diverse nationality presence on urban fronts can make a street like a small factory creating a resilient economy and an increasingly hybrid social network tool where migrants reside, work and develop highly skilled jobs. AbdouMaliq Simone (Max Planck Institute for Religious and Ethnic Diversity) presented his work on “feral urbanism” and questioned the notion

of the *household* arguing that most people live in a much larger and pluralized condition than the traditional sense that policymakers confer to it. The discussion on the social fabric of cities was further stimulated by Jean Louis Missika affirming that urban planning is only part of the answer to build social relationships among citizens and communities. Rahul Mehrotra (Harvard) put emphasis on the social roles played by sacred spaces in urban and suburban realms, and that the meanings that we tend to attribute to spaces are constantly shifting. In understanding the social and physical viability of traditional urban planning, all speakers concentrated on the recognition of new temporal and permeable boundaries of the street that transcend the ordinary concept of neighborhood, which is conversely carrier of fixed individual, emotional and geographical implications. While sprawling is certainly no longer an option, the margins of expansion must be combined between political and real interests for the future of cities.

Day Two focused more directly on architecture and design. Alejandro Aravena (ELEMENTAL) opened the first session "Urban Solution: What Role for Architecture?" connecting the Urban Age conference to the 15<sup>th</sup> Venice Biennale themes, that explore how design ingenuity can be harnessed to respond to everyday social and environmental battles. Claiming that the city owns a critical mass and that we will still meet each other within city boundaries, through his optimistic view he declared that "the more people come to the city, the better." Therefore, cities can be alternative paths to solve inequalities, redistribution and can work as a vehicle for development. Also, he mentioned how current environmental maps correspond more frequently to the security threat that ties acts of terrorism to climate change. Oftentimes, natural resources evolve into causes for civil conflicts among locals or nations, absorbing incursions, decay and contaminations and turning fertile regions into highly fragile territories. Greeting the environment as no longer an "hippy-romantic" theme, Aravena also underscored that we need to create knowledge that uses different technology for 60% less energy. Rahul Mehrotra, illustrating his research and exhibition at the Biennale *Ephemeral Urbanism, cities in constant flux* on the religious festival of Kumbh Mela, framed his speech on the need for contemporary cities to think in terms of temporaneity rather than permanence. As a temporary pilgrimage city of two months being informally built on the delta of the Ganges and Yamuna sacred rivers every 12 years, Kumbh Mela challenges our notion of urban design as huge and highly influential projects which indeed turn as disengagement from reality. Our baggage as western citizens is to take permanence as default both in design and government, while we need to consider that the vast majority of design worldwide is informal and that nonpermanent configurations of the urban are a legitimate and productive category within the discourse on cities. Kunlé Adeyemi (NLE), presenting his floating school for Makoko in Lagos (Nigeria) to make fragile coastal areas more resilient to environmental threats, enlarged the discourse on the social impact of impermanent architecture.



The double-session “Scales of Intervention” was divided in “Solutions from Below” and “Solutions from Above,” featuring speakers whose experience was either on small-scale, community-led urban projects or on top-down corporate developments. Julia King (LSE) introduced her work on sanitation in Delhi: while building more than 300 households, local communities gained specific knowledge that developed awareness and assertions on their own housing standards. Rozana Montiel (Rozana Montiel Estudio de Arquitectura) presented her work on Mexico City focusing on the necessity of creating a replicable process rather than an architectural product, while Ilan Shoat (Mayor of Safed, Israel) presented the experience of a Medical School as a game changer and economic engine for the city. The debate was animated by Jo Noero (Noero Architects) arguing that architects should never forget to think and act as such as they are paid by people to “make things work for them” therefore the social value of architecture is already embedded in its scope and should not be the focus. Amica Dall (Assemble Architects) presented her work on housing regeneration while Sean Anderson (MoMA) discussed the fragility of the refugee camp that, although becoming a city, is often perceived as a shadow city. “Solutions from Above” was opened by Ed Glaeser making the case that more urbanization equals to more growth, supported by analytic data indicating that nations with more cities have increased their GDP between 1960-2010. Kees Christiaanse (KCAP) picked up the debate asking what are the limits of urban design when there are multiple levels projects that reconfigure as new “centralities” for cities. Megaprojects such as La Défense, Canary Wharf or Marina Bay - he continued - are always complementary to slums. José Castillo (a911) dissented from the act of choosing between “top-down” and “bottom-up” as

a failure in conceptualization (i.e. replicating successful designs elsewhere), process (i.e. how to allocate the resources) and implementation (i.e. putting value in capital instead of implementation). Henk Ovink (Special Envoy for International Water Affairs) presented the US\$60b work after hurricane Sandy and finally Stefano Recalcati (Arup), while describing the requalification of Marghera in Venice and the Docklands in Dublin, described how large-scale interventions cannot be bottom-up. What remains uncertain in the process is whether they positively impact the communities or not, which is anyhow their ultimate goal.

The last session of the conference, “Shaping the New Urban Agenda,” addressed more specifically the cases and issues that will inform Habitat III in Quito next October 17-20, 2016. There was a lot on the plate as the New Urban Agenda aims to shape the future of urban policies over the next couple of decades. Before we incur greater costs, Peñalosa advised, we should keep Latin America as a “what not to do” reminder, depicting an urban environment where highways are poisonous rivers and the surroundings and living conditions are pedestrian-unfriendly. While Jennifer Musisi clearly articulated the need of urbanity for Africa illustrating Kampala’s governance challenges, Jagan Shah (National Institute of Urban Affairs, New Delhi, India) expressed the need of public-private partnerships and effective urban governance. During the lively final discussion the notion of the “right to the city” was debated in terms of diversity, spatial access and sustainable urban development. While Ilaria Boniburini (University of Witwatersrand, Johannesburg) defended the position that the smallest spatial indications should be given within urban agendas, it was also admitted the general reluctance of academia in producing physical models from which to deduct local solutions to general problems. Ricky Burdett finally raised the issue of language of the agendas that will be produced out of Habitat III doubting that they will do justice to connecting spatial and social dimensions. While the tendency is that of using specialist terminology focusing on transportation or economy, our urban agendas need to address social issues of inequalities in terms of spatial visions. Also, the idea that regional and national levels of governance have to overcome frictions and co-operate in order to drive and find solutions was agreed upon by panelists and speakers. Final remarks were left to Joan Clos who argued that in the world there is “too much architecture and too less urbanism.” Conversely, urbanization has become today a strategic issue of policy and therefore it is necessary to find a negotiation between the two terrains. He concluded suggesting that innovative proposals of participation that can provide a different spatial layout for our cities could be a beginning to fill the gap.

• • •

By gathering these diverse and specific voices, Urban Age was able to arouse the potential for exchange that is needed in the definition of an agenda for the future of cities that takes into account both the morphology

and the policy-making process. As architects and urban planners are more often the ingenuous executors of developers, governments and politics who are instead agents of huge capital flows, it is now clear that design is a language that needs institutions and cannot entrust other disciplines to take its place. UN-Habitat III hopes to stand just right in this policy: to set an agenda flexible enough where stakeholders would add or simplify structure when needed, to promote any kind of non-profit and institution partnerships, finally to enable dialogs among old and new economies. Under the leadership of Jean Clos, former Barcelona mayor, the summit will gather UN member states, international organizations, stakeholders and planners, hopefully reaching a consensus for the New Urban Agenda to get approved. Alas, this is part of the challenge as urban policies refer to cities rather than nations, and there are executive levels of organization where agreements can be delayed. After halted initial negotiations in July, an agreed draft of the Agenda has been signed at the Informal Intergovernmental Meeting in New York in September 2016 where it was decided the summit's focus on "implementation."

In twentieth century Global North, planning became the basis of every civilized city, yet many of the most successful western cities have fallen short in dealing with the most recent critical transformations: mass immigration, financial crisis, the breakdown of traditional industry, globalization and more. Part of the issue is that planning had to respond to a commercial agenda, or even when it regarded social concerns - like in East Germany - it was allowed to lie unused. On the other hand, informal settlements have been the ingenious, inventive and versatile answer of the Global South where most of the world's urban population today reside. The good news is that each can learn something from the other. The contrast between the staggering variety, intelligence and speed in responding to successive crises and changing conditions embodied in the unplanned city may work as an inspiration for the atomization, lack of responsiveness and large waste of the wealthy city. This transfer of knowledge, however, remains difficult. Many communities feel too comfortable in their own condition to welcome a change while others don't have the models or the experience to activate public space; also, the static and inflexible laws that rule the city of the Global North seems to repress this mutual exchange. The Urban Age conference brought precisely to the forum questions on the idea of the city. What is it for? Who is it for? Can we use the norms and scope of the informal to start redefine anew urban conditions and take humanity back at the heart of the city? By now, we can draw a parallel with the *Reporting from the Front* image-manifesto using the metaphor of the ladder as a tool that allows us to gain a new perspective and share the knowledge with those standing on the ground. The exchange provides an understanding that against scarcity - which can be due to lack of cohesion rather than resources - we can use inventiveness. Similarly, against abundance we can use pertinence as a way to play our part in redesigning our novel idea of the city.

### Credits

All figures are from the Urban Age Conference, "Shaping Cities", July 14-15, 2016. Jointly organized by LSE Cities and the Alfred Herrhausen Gesellschaft, Deutsche Bank, and hosted by La Biennale di Venezia, Venice (Italy). Photos by Andrea Avezzù. © Courtesy of La Biennale di Venezia.

**Brunella Angeli** holds a MArch (2008), and a PhD in Architectural History and Theory (2016), from the Politecnico di Milano. She has been a Visiting Scholar at the University of California, Berkeley during her dissertation research, exploring great events' urban models. She has co-authored a book on Italian post-modern architecture, *L'avventura del progetto* (2012), and her writings on urban design and the architecture of the city have been published in several international journals. She has worked on exhibitions at the MAXXI Museum in Rome, Palazzo Té in Mantua (Italy) and at the Venice Biennale. For the 2016-17 academic year Brunella is a Lecturer at UC Davis, California, and, since Fall 2016, she is an Editor for *The Plan Journal*. E-mail: [brunella.angeli@theplanjournal.com](mailto:brunella.angeli@theplanjournal.com).



The articles by Romina Marvaldi and Elisabetta Pani, Andrea Degli Angeli, and conrad-bercah were submitted for the 2015 The Plan Best Paper Award.

The jury comprised:

Francesco Garofalo, University of Chieti-Pescara, Pescara (Italy)

Marc Neveu, Woodbury University, Burbank CA (USA)

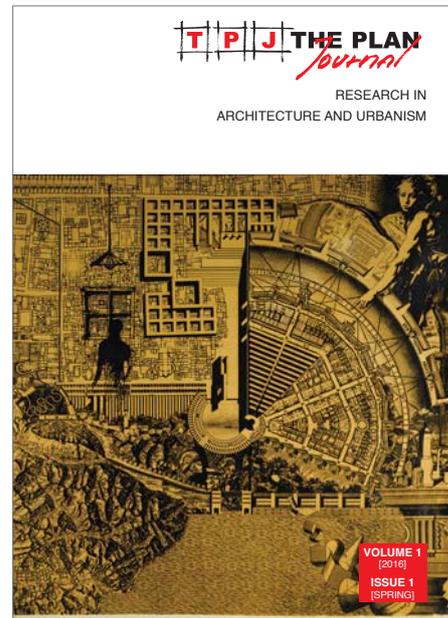
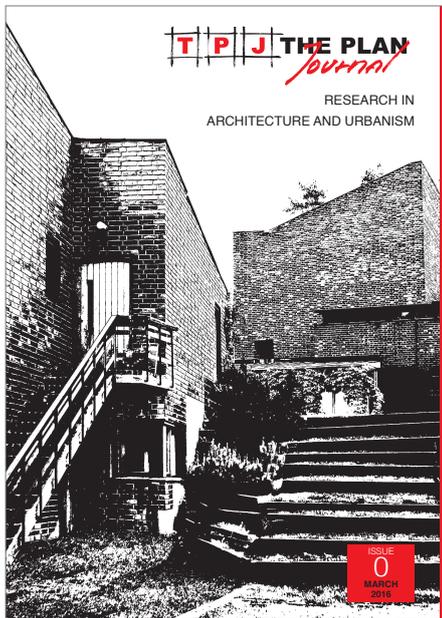
Elodie Nourrigat, ENSAM, Montpellier (France)

Mara Partida, ETSAB, Barcelona (Spain)

Maurizio Sabini (chair), Drury University, Springfield MO (USA)

Michael Speaks, Syracuse University, Syracuse NY (USA)

# Subscriptions



## Institutional

Annual Subscription

**\$ 450**

ON-LINE + PRINT  
TWO ISSUES

Single Issue

**\$ 250**

ON-LINE + PRINT

## Personal

Annual Subscription

**\$ 90**

ON-LINE + PRINT  
TWO ISSUES

Single Issue

**\$ 60**

ON-LINE + PRINT

The ultimate purpose of the TPJ is to enrich the dialog between research and professional fields, in order to encourage both applicable new knowledge and intellectually driven modes of practice.

The Plan Journal is solely financed through subscriptions and publication fees. While subscribers will have access to all articles, manuscripts are published through a hybrid system: either in Open Access with publication fees paid by the author or via a Reading Fee paid by the reader (who has not subscribed) with the author paying no publication fee.

**For more information: [www.theplanjournal.com](http://www.theplanjournal.com)**

# Call for Submissions

# Open Issue

*[Spring 2017, Vol. 2, No. 1]*

We accept new proposals [abstracts]  
or full manuscripts on any of our areas/sections  
of research for the 2017 open issue.

**BY JANUARY 30, 2017**

The Plan Journal is published twice a year by The Plan Editions - Centauro s.r.l.  
Electronic Submissions Guidelines: Please see TPJ Guide for Contributors  
at [www.theplanjournal.com](http://www.theplanjournal.com).

The TPJ publishes the work of scholars, practitioners and doctoral candidates.  
Submissions, whether without a previous submission of proposal or  
encouraged by a preliminary approval of their proposal or draft format, must  
be made in Word (.doc or .docx) file format. Submissions must be made  
through the dedicated portal on the TPJ web-site. It is assumed that a  
submitted article is unpublished and is not being considered for publication  
elsewhere. Once a manuscript is accepted, the author will be asked to assign  
copyright to the Publisher "Centauro srl." (Permission to reproduce is not  
normally withheld.)

No part of this journal may be reproduced or transmitted in any form or by  
any means, without permission in writing from the publisher. Advertising copy  
does not exceed 45% of this issue. Unless otherwise specified and agreed,  
any material submitted to the editor's office shall not be returned. Centauro  
srl Edizioni Scientifiche is the Data Controller of all personal data kept in  
its databases for purposes regarding the publication of this Journal. Data  
Subjects may avail themselves of the rights granted under Art. 7 of Italian  
Decree Law 196/03 by calling: +39 051. 227634.



---

## ADVISORY EDITORIAL BOARD

---

Iñaki Abalos, Chair, Department of Architecture, GSD, Harvard University, Cambridge MA, USA

Stig Andersson, Founding Partner SLA Architects, Professor of Aesthetic Design, University of Copenhagen, Copenhagen, Denmark

Alfredo Brillembourg, Chair of Urban Design, ETH, Zürich, Switzerland

Yung Ho Chang, Professor, College of Architecture and Urban Planning, Tongji University, Shanghai, China

Brian Ford, Professor Emeritus, Department of Architecture & Built Environment, University of Nottingham, Nottingham, UK

Hsinming Fung, Director of Academic Affairs, SCI-Arc, Los Angeles CA, USA

Carlo Gasparini, Professor of Urbanism, Dipartimento di Architettura, Università degli Studi di Napoli Federico II, Naples, Italy

Francisco Liernur, Professor, Escuela de Arquitectura y Estudios Urbanos, Universidad Torcuato di Tella, Buenos Aires, Argentina

Rahul Mehrotra, Professor of Urban Design, GSD, Harvard University, Cambridge MA, USA

Antoine Picon, Professor of the History of Architecture and Technology, GSD, Harvard University, Cambridge MA, USA

Mónica Ponce de León, Dean, School of Architecture, Princeton University, Princeton NJ, USA

Jane Rendell, Professor, The Bartlett School of Architecture, University College London, London, UK

Peter Rich, Professor, Witwatersrand University, Johannesburg, South Africa

Robert Somol, Director, School of Architecture, University of Illinois at Chicago, Chicago IL, USA

Michael Speaks, Dean, School of Architecture, Syracuse University, Syracuse NY, USA

Martha Thorne, Dean, IE School of Architecture and Design, Madrid, Spain + Exec. Dir., The Pritzker Architecture Prize

C David Tseng, Dean, College of Humanities and Social Sciences, National Chiao-Tung University, Taipei, Taiwan

Wouter Vantisphout, Professor of Design & Politics, Faculty of Architecture, TU-Delft, Delft, The Netherlands

Sarah Whiting, Dean, School of Architecture, Rice University, Houston TX, USA

Li Xiangning, Deputy Dean, College of Architecture and Urban Planning, Tongji University, Shanghai, China

**Theory:** A visual research on building facades (Manferdini), and new perspectives on architecture's "Critical Call": unpacking Hannah Arendt's ethical questions (Holmquist) and re-assessing the legacy of the Italian Tendenza (De Paola). **Housing:** Select contemporary residential interventions in Europe discussed through the critical lenses of both design and post-occupancy evaluation processes (Marvaldi & Pani). **Reflective Practice:** A project for Saint Louis by Axi:Ome through a "strategy of fragments," for a new idea of the city (Woofter & Kim). **Urbanism:** Visions of a new role for China's Grand Canal (Degli Angeli), and an approach to re-envision the "redundant city," taking Berlin as a "pre-text" (conrad-bercah). **Criticism:** Critical report and outcome evaluations on the LSE-Cities Urban Age conference at the Venice Architecture Biennale, July 2016 (Angeli).