

ITINERA

Collana diretta da/Book series directed by Giuseppe Strappa

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Itinera   una collana dedicata allo studio della forma architettonica e urbana indagata attraverso i processi che generano lo spazio costruito, i linguaggi che ne definiscono la figura e le trasformazioni che ne accompagnano la vita. Attraverso saggi, ricerche e riflessioni critiche, *Itinera* intende restituire la complessit  del progetto come itinerario di pensiero e materia in divenire, dove gli edifici, le citt  e i territori si rivelano luoghi di attraversamento, stratificazione e invenzione. Ogni volume si configura come tappa di un percorso aperto: un invito a leggere la forma come esito di un viaggio, il continuo farsi del costruire.

Itinera is a book series dedicated to the study of architectural and urban form, which is investigated through the processes generating the built space, the languages defining its shape, and the transformations accompanying its life. Through essays, research, and critical reflections, *Itinera* aims to convey the design's complexity as an itinerary of matter and thought in transformation, where buildings, cities, and territories reveal themselves as places of transition, stratification, and invention. We thought of each volume as a step in an open itinerary: an invitation to read the form as the outcome of a journey, and the continuous process of a construction.

Tutti i lavori pubblicati nella serie sono sottoposti a un processo di double blind peer review.
All contributions published in the series are subject to a double-blind peer review process.

FORMA URBANA E PROGETTO *URBAN FORM AND DESIGN*

prospettive internazionali di ricerca
international research perspectives

a cura di/edited by
Alessandro Camiz e/and Matteo Ieva

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Presentation

SIGNALS FROM THE FUTURE

Giuseppe Strappa

This publication is based on the study days held on November 8-9, 2024, at Palazzo Cenci Bolognetti in Rome, which examined the connection between urban form studies and architectural design.

Nevertheless, this is not a record of the proceedings from those events; instead, it constitutes an independent and, to some extent, cohesive collection of essays that reflect on the discussions, particularly from the standpoint of the authors' mutual focus on urban morphology. In recent years, the term has become ambiguous, referring to varied fields and divergent views on evidence-based architectural design's role and purpose today. It's no coincidence that we chose the title "Urban Form and Design" rather than "Urban Morphology and Design" to indicate, as architects, a choice of field that places form itself (not the study of form) at the center of the debate on the construction of a new design philosophy. And, in fact, the idea behind organizing the Roman days was to continue the series of annual meetings that had become traditional for the Muratorian school (and had been interrupted for many years), which were held periodically in Tuscan towns and were opportunities to exchange thoughts and research findings among professors who displayed clear cultural affinities. Today, we can say that the vaguely initiatory atmosphere of those meetings did not help break the isolation that the Muratorian school has always had within the academic world.

URBAN FORM AND DEGLOBALIZATION

The last two meetings of the Muratorian school, held in the magnificent Villa La Ferdinanda in Artimino, posed the very question of the comparison with other schools of thought seeking some form of salvation from the aestheticizing drift of contemporary research. In particular, the last meeting, which took place several years ago, had as its underlying theme

the problem of cultural areas. The discussion took place with Spanish architects, with whom we sought to identify the common characteristics of ongoing research, as well as the specificities of many methods and approaches.

On this new occasion, we invited a group of Portuguese architects to reflect on the topic.

The question of cultural areas has played a central role in the development of Muratorian and Caniggian thought. It is, moreover, a topic that has been debated in parallel within other disciplines.

*What has long been considered a cultural area, and what is its future outlook? Perhaps the clearest definition was given by Noam Chomsky, particularly when he addressed the problem of competence (Chomsky, 1968). The term indicated, in the American linguist theory, a physical place within which a normal person perfectly knows the rules of the language in use: he understands its codes and knows how to use it (*idem*). The analogy with the rules of construction is clear. Chomsky approached the problem from a linguistic perspective, but if we replace the problem of language with that of the built environment, making the necessary, obvious differences, this helps us understand not only what can be meant by cultural area, but also what its cultural limits might be today.*

*A definition that now seemed, in fact, largely outdated due to the crisis generated by globalization, which seemed to have swept away the areal characteristics consolidated over time. An illusion that began in the late 1980s with the fall of the Berlin Wall, which ushered in an optimistic phase in human history. For at least thirty years, it was believed that local specificities were rapidly disappearing, replaced by a sort of universal *koinè* within which goods, technologies, and culture could be freely exchanged. A generalized and infinitely extended competence.*

Just as the concept of a unified cultural area appeared to be waning, various signs began to warn that this hope for an organic and collaborative world was doomed to bitter disillusionment. The emergence of trade protectionism, the increasing divisions in Western societies exemplified by Brexit, and the policy shifts during the initial Trump administration contributed to a growing sense of disappointment.

But then a second, more insidious phase of deglobalization arose, due to the fragmentation of the geopolitical landscape in a fluid, constantly shifting context and the formation of new political, economic, and military blocs. The conflicts in Ukraine and the Gaza Strip are just the tip of the iceberg. In reality, hotbeds of division and conflict are increasing worldwide; new, unexpected political solidarities are forming between geographically distant areas, while social inequality and the disparity in living conditions between the global North and South are increasing. The

vivid representation of this condition is the new image the United States is projecting of itself to the world. It turns out that Trump and Trumpism are not the temporary product of a sudden collective squint, but the expression of a profound, selfish, and violent America, almost unknown to us, which appears behind the ideology of dominant finance combined with advanced and unethical technology.

As for Europe, I believe the crisis of the very idea of nation, understood as an area of cultural, linguistic, geographic, ethnic, religious, and political sharing, is now evident.

In our field, we have always thought of specific characters of cultural areas coinciding with geographical areas: we speak of Italian, Portuguese, and Spanish cities.

In reality, the same idea of nation, born with Romanticism, is proving to be totally abstract and out of date. In a context made complex by the accelerated exchanges between areas, fostered by the fall of barriers between states, the small homelands of which Pier Paolo Pasolini spoke, local identities, are re-emerging, with new prospects and new dangers.

The reconstructions of the formative processes of Roman cities mentioned by Pedro Martins in these pages, such as Braga, Coimbra, and Évora (Martins, 2022), demonstrate not only how similar the establishment of ancient Italian and Portuguese cities are (something, moreover, rather obvious), but also how the modern and contemporary outcomes of these processes display a great formal affinity, how they seem to belong to a common cultural area.

The analogous perception, the shared emotion experienced upon entering these cities belonging to very different geographical areas, are a form of knowledge, perceived forms that integrate and are then deciphered and explained by reason.

These forms of knowledge (the processes and the perception) lead to a new comparison of architecture, settlements, and cities, beyond national borders. Ancient Portuguese cities, their modern outcomes, and the modern outcomes of Roman-founded Italian cities are in many ways comparable. Much more than other Portuguese, Spanish, and Italian cities between themselves.

It seems to me, therefore, that this is a topic we will have to approach with fresh eyes in the future. Considering that new borders don't even exist, that perhaps geographical boundaries don't exist tout court, and that we should consider cultural areas as made up of layers containing specific aspects that overlap, intersect, and don't always coincide. Naturally, this is much more difficult than simply considering a common language within a geographically homogeneous area, but the results will, I believe, be scientifically much more reliable and useful for design sciences.

THE NEW SCIENTIFIC NATURE OF DESIGN DISCIPLINES

This issue will affect future urban morphology research. Recent literature and international conferences indicate an increasing focus on quantitative research and computational methods. These trends prompt consideration of the direction urban morphology is currently taking. Additionally, it raises the question: is there one urban morphology, or are there many? As architects, we cannot but consider the problem in design terms: why is a morphological reading of built reality useful for future transformations? This is the question we have long been asking ourselves, and which today is being addressed in new terms.

But what is the core of this science? And why is it a science? Is it simply knowledge in a general sense, or is there a disciplinary corpus consisting of demonstrable and transferable methods, for which authors are required to take responsibility through verification, that is, through design? I believe that, from this perspective, with respect to the quantitative drift we are witnessing, we will be called upon to make choices because it is a fundamental issue, a problem, in a certain sense, ontological, as it concerns what we will become in the coming years and how the new generations are being formed. The Digital School Plan 4.0, in Italy, indicates that new middle school students should be educated through computational thinking. The implications of this new situation should be considered in relation to the training of future architects.

What does the application of computational thinking in architectural design mean, and what is the significance of the research on this topic, which is increasingly being conducted in the field of urban morphology? I believe the problems arise from the very way the computational method is constructed in phases. I try to interpret them from the perspective of their usefulness to architectural design.

The initial phase of the method is the statement or interpretation of the problem, very similar to the processual morphological approach. The subsequent phase, similar in nature, seeks to extract from the concrete details of built reality some general and abstract laws that allow us to give recognizable order to phenomena, to “read” them as parts of a whole. In other words, seeking within the multiplicity a form of abstraction that unifies it.

The problem, at this point, is how to transform the apparent chaos of the constructed world into a new order (the cosmos that puts things in their rightful place) through recognized rules, that is, through design.

The computational solution is recursive (the same problem has the same solution) and can be expressed by an algorithm. It can be performed by humans, but it can also be (better) performed by machines through a pro-

cedure that involves a specialized programming phase, which, in reality, is the one that contains the choices. It seems to me that what follows, in fact, is execution, which involves neither responsibility nor memory, and does not include some fundamental steps in architectural design based on individual perception, on the ability to choose based on one's own scale of values and on the resulting responsibility. Naturally, it can be argued that at the heart of the procedure is still the human being with his or her critical abilities, and this is partly true. Nevertheless, as is often the case in today's world, this critical phase is delegated to a few producers, while the usable outcome in design practice is intended for a world of consumers.

Currently, these signs suggest a credible direction that aligns with a long-standing, prevalent trend beyond architecture.

*Computational thinking was born in the 1950s and then became widespread, especially in the early 1980s. 1980 seems to be the year of the crossroads. Seymour Papert wrote *Mindstorms. Children, Computers, and Powerful Ideas* (Papert, 1980). It's an important book not only because it spread awareness of the problem beyond strictly scientific fields, but also as it begins to raise the question of the dominance of the mind over the body ("Our strategy is to make visible even to children the fact that learning a physical skill has much in common with building a scientific theory"), even to the separation of thought from its biological essence, from the body.*

I believe that perhaps the most immediate graphic image of this detachment was provided by the recent America's Cup regattas. The brain, the pilot, and the trimmer, protected by an acrylic bubble canopy, had no physical contact with the events unfolding around them. Three monitors provided data, measurements, and all the useful information. Decisions were made within a closed microcosm that could have been located anywhere in the world, like in a video game. So much so that the America's Cup video game was running in parallel, with great success, and the awards ceremony took place physically on the dockside of the boat harbour. Meanwhile, below deck, the physical body was housed, along with the muscles required for navigation: four athletes lying down, who were asked only to pedal and generate energy. Their success, their value, and their achievement was measured in watts produced. With all my admiration for the technical progress being made in recent years, I believe that the progressive detachment of the mind from the body, from the dimensions and the physicality of things, is a damage that will soon be irreparable. As architects, we know well how important the actual size of objects is and how closely it is linked to the way we experience forms with matter and experience space with our bodies.

Also in 1980, Umberto Maturana published another important book that constituted an implicit critique of the system proposed by Papert.

His Autopoiesis and Cognition. The realization of the living (Maturana, 1980) argued that, from a biologist's perspective, in a system that continually reproduces itself, thought is inseparable from its biological component, since the mind is an integral part of the body, living with the rest of the body, changing with it. The reality that surrounds us, the built environment, is therefore a cognitive process through which we evaluate and measure the world, which we cannot describe and process independently of our individuality, in a completely objective way.

What, after all, are the dimensions with which we establish relationships between things, if not a reduction of the external world to the length, height, and width of the body and its parts? The pace, the span, the foot were measurements that linked knowledge of the external world to the body. They also provided the physical measure of time, like the league, which related time to space by indicating the distance that could be travelled in a given time. Space was linked to walking, so the man who traveled the ancient territory did not feel lost; he knew that a city was not an abstract distance away, simply identified through geography, but that a certain time, a journey, was needed to reach it. Connecting the mind to the materiality of the body and the things that surround us is a fundamental recognition and, at the same time, a choice full of future.

Contact with the built environment has, until now, been the essence of any theoretical architectural text. We are not philosophers, we are not mathematicians: ours is a theory, allow me the expression "contaminated" in the sense that it is derived from the approximations of experience, of which it is, ultimately, a codification. Saverio Muratori, perhaps one of the most sophisticated modern architectural theorists, sometimes reaching extreme levels of abstraction, wrote in the introduction to his book on Rome (Muratori, 1963), that all that extensive research on buildings and urban fabric, which constitutes the true theoretical foundation of his method, began with a professional work, a commission for the restoration of medieval Roman urban fabric. It was from their careful study that he slowly realized how everything was connected in the same process of transformation, that things communicated with each other. He discovered how families of buildings presented common characters and were linked through shared principles, which constituted the laws of the becoming of urban fabrics and organisms, in a succession of ebbs and flows, constructions and substrata (Strappa, 2019), recastings and dequantifications (Ieva, 2021), specializations and rebasifications (Özkuvancı, 2023). Becoming was, therefore, the center of the problem, the origin and, at the same time, the explanation of the reading and the project.

I believe that the critical study of processes, updated with contemporary tools, is the path to follow: following the different phases of transformation, we reach at a final phase, not yet realised but possible and necessary, which is the desired one of the future project.

Reading and design thus coincide in a single circular process (Strappa, 2014) that originates from the recognition of the general in the particular in the concreteness of built reality: the identification of a limited number of generic forms capable of processually generating an infinite number of outcomes.

Contrary to the mainstream offered by teaching methods informed by the present, the outcomes that follow the processual study of urban phenomena therefore have memory, and from them can arise, even with a non-aesthetical use of artificial intelligence, a plurality of aesthetic syntheses, all unique and unrepeatabe.

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