



ITRUVIO

International Journal of
Architectural Technology and Sustainability



ENVISIONING FUTURE CITIES

Interview with **MANUEL PORTACELI**



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Table of contents

Editorial Team

Contact

Focus and scope

- Editorial** **Envisioning future cities**
Graziella Bernardo
- #26550** **Interview with Manuel Portaceli**
Luis Palmero, Graziella Bernardo, Stefania De Gregorio
- #24297** **Balancing heritage conservation and public accessibility in hypogeal sites: environmental monitoring of occupancy scenarios**
Mariella De Fino, Rocco Rubino, Elena Cantatore, Albina Scioti
- #24846** **From BIM to Agentic AI: predictive management systems and phygital digital twins for built heritage**
Daniele Fanzini, Giorgio Casoni, Angelo de Cocinis
- #25132** **Integrating HBIM for the sustainable management of the M'zab Valley of Algeria: a digital approach to earth-en heritage in arid climates**
Meryem Kadri
- #25719** **Rammed earth in the work of Antoni Gaudí. The entrance pavilions to Finca Güell in Barcelona (Spain)**
Camilla Mileto, Fernando Vegas López-Manzanares, Lidia García-Soriano
- #24735** **Passive design strategies of vernacular houses in the hot-humid climate of Indonesia**
Agung Murti Nugroho, Tetsu Kubota, Muhammad Nur Fajri Alfata, Fernanda Ayuning Putri, Wasiska Iyati
- #26151** **Material substitution and the expansion of operative capacities: the Iron Bridge and the Hennebique system**
Eduardo Fernández-Moscóso López-Durán
- #25053** **Evaluating AI-driven predictions for the interior design of 2070 technology stores**
Erdem Köymen, Esra Tokuç
- #25605** **The DIMHENSION Library. A web platform for 20th-century architecture**
Giuseppe Angileri, Alessandra Cernaro, Antonio De Gaetano, Ornella Fiandaca, Fabio Minutoli

EDITORIAL

Envisioning future cities

Cities never belong entirely to their own time. They bear the traces of past generations, accommodate the needs of the present, and anticipate possibilities not yet realised. Every generation inherits an urban legacy it did not create and is entrusted with shaping it for those who will follow. This interplay between memory and innovation, permanence and change, is one of the defining characteristics of the urban condition.

Shaped through an ongoing dialogue between past, present, and future, cities rank among humanity's most enduring cultural achievements. Few collective artefacts embody so powerfully the convergence of memory, knowledge, conflict, political aspiration, and the capacity to envision the future.

Every age has shaped its cities according to its own understanding of the world. Classical antiquity conceived the city as an expression of order rooted in the relationship between civic space and political community; the medieval city reflected the delicate balance between religious authority, economic organization, and social belonging; the Renaissance transformed it into a representation of harmony and human reason; the Industrial Revolution made it the engine of economic growth and technological innovation. The contemporary city, in turn, bears the imprint of the forces that have shaped the modern world: mass urbanization, global mobility, demographic expansion, transformations in production systems, and the communications revolution.

European urban history offers perhaps the clearest illustration of continuity through change. Today's cities are not the product of a single vision but the result of successive layers of intervention, adaptation, and reinterpretation. They do not preserve the past as a static artefact; rather, they absorb it, reshape it, and carry it forward into the future. Their identity lies not in permanence, but in their ability to transform without forgetting.

Today, this delicate balance between continuity and transformation is under unprecedented pressure. The forces reshaping the twenty-first century - climate change, global migration, the energy transition, social inequality, the growing fragility of urban infrastructures, and the digital revolution - are redefining both the role of cities and the very meaning of dwelling. Today, cities are more deeply intertwined with global challenges than at any other moment in history. Cities account for the largest share of global resource consumption, generate most greenhouse gas emissions, and accommodate an ever-growing proportion of the world's population. At the same time, they have become the principal arena in which responses to these challenges are conceived, tested, and implemented.

Within this context, increasing attention has been devoted to the notion of future cities. The term has become firmly established in the vocabulary of research, planning, and public policy. Yet it is often interpreted in reductive terms, as though the future of the city depends solely on the availability of new technologies or on the capacity to develop ever more efficient and interconnected infrastructures.

The dominant narrative tends to equate the urban future with the smart city: a city capable of collecting real-time data, monitoring its own systems, optimizing energy consumption, regulating mobility flows, and improving service efficiency through advanced digital technologies. This perspective has undoubtedly generated significant

achievements and expanded our capacity to understand and manage the built environment. Nevertheless, it also risks fostering a profound misunderstanding: that of confusing the city with the technological systems through which it is administered.

Cities are not merely infrastructures. They are not simply transport networks, energy systems, digital platforms, or flows of information. Above all, they are sites of human experience. They are the spaces within which individuals and communities forge relationships, construct identities, produce culture, and assign meaning to their collective existence. To reduce the city to a question of efficiency is to overlook what has historically made it one of the highest expressions of civilization.

Every technological innovation alters the way we inhabit and interpret the world. This has always been the case. The aqueduct, the printing press, the railway, public lighting, the automobile, and telecommunications each profoundly transformed urban form and the practices of dwelling. Yet none of these innovations acted autonomously. Their effectiveness and significance have always depended upon the cultural and social frameworks within which they were introduced.

Technology expands the possibilities of action; it does not determine its ends. This distinction appears more important today than ever before. The emergence of artificial intelligence represents one of the most significant turning points of our age. For the first time, we have access to systems capable not only of processing vast quantities of data, but also of generating simulations, producing forecasts, identifying correlations, and supporting complex decision-making processes. The implications for architecture, urbanism, and the governance of the built environment are profound.

Yet the more sophisticated our tools become, the more urgent another set of questions appears: What kind of future are we trying to predict? What purposes does optimization serve? And whose values are embedded in the systems we design?

Urban history teaches us that the most profound transformations have never been merely technical; they were cultural before they became material. The city is not simply a physical artefact but the spatial expression of a collective vision. Its streets, squares, public buildings, and infrastructures give form to ideas of community, citizenship, and shared life. For this reason, the debate on future cities cannot be reduced to technology. It must confront the visions that guide change. The crucial question is not merely what we will be capable of doing, but what we believe is worth building.

The climate crisis makes this responsibility even more apparent. For more than two centuries, the idea of progress has been associated with the virtually unlimited expansion of productive and technological capacities. We now know that such a paradigm is no longer sustainable. Cities stand at the center of this growing awareness. They

are called upon to reduce consumption and emissions, adapt to increasingly extreme climatic conditions, rethink their relationship with natural resources, and promote more balanced models of development.

Yet even here, the solution cannot be purely technical. Sustainability is not merely an environmental or energy-related issue; it is fundamentally a cultural one. It entails a different understanding of the relationship between humanity and nature, between growth and limits, between individual interest and collective responsibility. In other words, it requires a renewed vision of dwelling.

In this regard, Pope Leo XIV's encyclical *Magnifica Humanitas* offers a particularly timely reflection. Against the backdrop of the rapid development of artificial intelligence and other transformative technologies, the document addresses one of the defining questions of our age: how to ensure that the expansion of technological power is accompanied by a corresponding growth in human responsibility. The risk, it argues, lies not in technology itself, but in the possibility that its development may proceed more rapidly than our capacity for ethical judgement and civic responsibility. This reflection speaks directly to cities. Technological innovations may enhance the efficiency of urban systems, yet they cannot replace the fundamental questions concerning quality of life, social justice, access to opportunity, community building, and belonging. Digital platforms may optimise processes and algorithms may support decisions, but neither can determine the kind of society we aspire to build or define the meaning of the common good. It is precisely at this juncture that architecture and the design disciplines assume a critical role. They occupy a unique position at the intersection of science and humanism, technology and culture, innovation and memory. Every project is simultaneously a technical, aesthetic, social, and political act. Every transformation of the built environment generates consequences that extend far beyond its material dimension. Architecture does more than shape buildings; it shapes relationships, patterns of behaviour, and conditions of possibility. It interprets needs, mediates between competing demands, and gives form to collective aspirations. Its task cannot be reduced to the application of increasingly sophisticated technologies. Rather, it lies in its capacity to articulate shared visions of the future.

Perhaps this is the deepest meaning of the term envisioning: not prediction, but interpretation. Not the mechanical anticipation of what may come, but the construction of visions capable of orienting change. The cities of the future will not emerge from the mere accumulation of technological innovations. They will emerge from our capacity to embed those innovations within broader cultural, civic, and human horizons. This understanding of design as the construction of a vision runs through much of the finest European architectural culture of the second half of the twentieth century. It is no coincidence that, in the interview featured in this issue, Manuel Portaceli strongly reaffirms the value of the pre-existing urban and environmental context as the very foundation of design action. At a time when innovation is frequently equated with disruption, his work reminds us that every project begins, above all, as an act of interpretation. The future is not built against the existing city, but through the capacity to understand its layers, its meanings, and its still-unexplored possibilities.

In an age increasingly governed by immediacy, the city reminds us that meaningful transformation requires time. It demands continuity, memory, and responsibility. Each generation inherits a world it did not create and is entrusted with the responsibility of shaping it for those yet to come. It is from this perspective that the theme *Envisioning Future Cities* acquires its deepest significance. Not as an exercise in prediction, nor as a celebration of

the possibilities offered by technological innovation, but as a critical reflection on the responsibility that accompanies every transformation of the built environment.

Our time offers dramatic reminders that such responsibility can never be taken for granted. While discussions of smart cities, artificial intelligence, and predictive models continue to shape urban agendas across much of the world, other cities are being destroyed by war. The images emerging from Gaza remind us with brutal clarity that a city is not merely a collection of buildings and infrastructures, but a repository of collective memory, human relationships, and shared identity. Its destruction is not only a material loss; it is a wound inflicted upon history itself and upon the very possibility of imagining a common future.

More troubling still is the tendency to approach reconstruction primarily as an economic, strategic, or geopolitical undertaking rather than as a human and civic responsibility. When the future of cities is conceived in terms that privilege financial interests or political expediency over collective memory and social continuity, design risks losing its cultural dimension and becoming little more than a technical exercise.

For this reason, the future of cities cannot be entrusted solely to technological power or market rationality. It depends upon our capacity to recognize that every transformation of the built environment carries responsibilities: to history, to the communities that inhabit places, and to the generations that will inherit them.

Cities remain among humanity's most ambitious collective achievements. They are places where each generation inherits a legacy it did not create and assumes responsibility for a future it will never fully see.

Graziella Bernardo



Restoration of the Atarazanas (shipyards) for cultural use. Valencia, 1979–1993. Photo credits: Pepa Balaguer.



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