

ISSN: 2227-7994

FORUM A+P

INTERDISCIPLINARY JOURNAL OF ARCHITECTURE AND BUILT ENVIRONMENT

Design for the New World(s)

VOLUME 28/JANUARY 2024



BOARD OF DIRECTORS INSTITUTION

PhD Doc. Sotir Dhamo // POLIS University (AL)

Prof. Dr. Besnik Aliaj // POLIS University (AL)

PhD Dritan Shutina // Co-Plan (AL)

EDITORIAL COMMITTEE

Head of the Editorial Committee

PhD Ledian Bregasi // POLIS University (AL)

Assoc. Prof. Andrew Charleson // Victoria University (NZ)

Reader, PhD Antonino Di Raimo // Portsmouth University (UK)

PhD Elona Karafili // POLIS University (AL)

PhD Ledian Bregasi // POLIS University (AL)

PhD Matevž Čelik // Future Architecture

Programme Director (SVN)

Emer. Prof. Michael Batty // Bartlett (UK)

Prof. PhD Michelangelo Russo // Federico II (IT)

Prof. PhD Roberto Di Giulio // UniFe (IT)

PhD Skender Luarasi // POLIS University (AL)

PhD Sonia Jojic // POLIS University (AL)

PhD Valerio Perna // POLIS University (AL)

SCIENTIFIC COMMITTEE

Asst. Prof. PhD Anastasios Tellios // AUTH (GR)

PhD Endrit Marku // POLIS University (AL)

Emer. Prof. Franco Purini // Sapienza (IT)

Assoc. Prof. PhD Giuseppe Mincoelli // UniFe (IT)

Assoc. Prof. PhD Kiersten Muenchinger // UO (USA)

Assoc. Prof. PhD Kostandinos Giakoumis // K. Logos (AL)

Srlect. PhD Loris Rossi // MMU (UK)

PhD Peter Nientied // (NL)

PhD Rudina Toto // CO-Plan (AL)

Assoc. Prof. PhD Theo Zaffagnini // UniFe (IT)

EDITORIAL TEAM

MSc Kristiana Meço // POLIS University (AL)

MSc Aishe Bitri // POLIS University (AL)

Cover Design: Santina Di Salvo

Guest Editors: Velerio Perna

Santina di Salvo

Endri Dani

ISSN: 2227-7994

Contacts:

Rr. Autostrada Tiranë-Durrës, Km.5, Kashar

KP 2995, Tirana Albania

Tel: +355.(0)4.24074 - 20 / 21

Cel: +355.(0)69.20 - 34126 / 81881

Email: forumap@universitetipolis.edu.al

<https://press.universitetipolis.edu.al/forum-ap/>



Forum A+P: Interdisciplinary Journal of Architecture and Built Environment, published by POLIS University since 2010, is the only scientific and cultural journal in the Albanian-speaking countries in the fields of architecture and urban planning. This journal is recognized by the Ministry of Education and Science, the Academic Degrees Evaluation Committee and has an ISSN international registration code.

Vol.28/January 2024

DESIGN FOR A NEW WORLD (S)

TABLE OF CONTENTS

EDITORIAL	06
Introduction from the Editors SANTINA DI SALVO	
WORKSHOP REPORTS	
Drones for Architectural Scenarios ARMELA REKA, KEJSI VESELAGU, ARTAN KACANI, GIUSEPPE DI SALVO	10
Finishing Technology of the Building ALBI ALIAJ , MERITA GURI, MIRELA KLLOGJRI	12
Chic-Etic ESMERALDA MARKU , ANDREAS REITER	14
Untimely Meditations or: How We Learn to Live in Synthesized Realities KETI HOXHA, DEJVI DAUTI, ERA MËRKURI, MARTIN GJOLEKA	16
Encoding Systems - Façade Design Through Ged & Ai FULVIO PAPADHOPULLI, VALERIO PERNA	18
INVITED PAPERS	
Bioinspired and Biobased Material Programming Self-Shaping and Responsive Systems for a Sustainable Future TIFFANY CHENG, ACHIM MENGES	20
Speculative Design as an Amplifier of Reality The Multiplication of Scenarios in the Solving Practice of Increasing Complexity in Design JURJI FILIERI	26
Scientific Design from a Speculative Perspective CARLA LANGELLA	30
Drones and Architecture: Technological Revolution in the Field of Building Design GIUSEPPE DI SALVO	36
Exploring the Intersection of Speculative Design and Adaptive Surfaces KATIA GASPARINI	40

SCIENTIFIC RESEARCH PAPERS

On The Status of Higher Education Development (Hei) In Albania 2024 Findings on the Status of The “Third Mission” In Albanian Hei’s In 2024 BESNIK ALIAJ, ALEKSANDËR XHUVANI, XHILIOLA BIXHEKU, MIRA IDRIZI	44
Generative Artificial Intelligence as a Collective Creativity ALESSANDRO MELIS	62
Hyper Personalization in Car Design GREGOR ANDO	70
New Scenarios of Building Performance Control for Climate Change in Urban Areas MARTINO MILARDI, MARIATERESA MANDAGLIO	78
Material Tinkering as a Tool to Promote User Empathy and a Subliminal Waste Reduction Strategy CARLO SANTULLI	82
Artificial Intelligence for Sustainable Architecture and Design ANNALISA LANZA VOLPE	92
‘Chto Delat?’s What Struggle Do We Have in Common? and repoliticisation: defamiliarising the performative turn in gallery-based events FRANCESCO SCASCIAMACCHIA	100
Rhythm and Balance in Modular Façade Renovations: A Case Study on Prefabricated Large Panel Buildings" "Visual and Functional Interventions in Prefabricated Large Panel Façades: A Gestalt Approach" ARMELA LAMAJ, FLOGERTA KROSI	114

TELQUEL ARCHITECTURE

Architectural Heritage and Contemporary Lighting Design at the Musée de Cluny SANTINA DI SALVO	112
---	-----

BOOK REVIEW

Tre Lezioni sull’Agenda 2030 ROBERTO CONIGLIARO	126
--	-----

DRAWINGS

“Upside-Down Scenarios”. Original artwork by Santina Di Salvo, generated with Midjourney AI SANTINA DI SALVO	130
--	-----

Design for the New World(s)

SANTINA DI SALVO

POLIS University

This issue of *Forum A+P* is dedicated to Tirana Design Week 2023 (TDW), a biennial event hosted by POLIS University in Tirana. TDW serves as a prominent international platform for architects, researchers, urban planners, and designers, facilitating critical analysis of the transformation of the built environment.

The event advances experimental methodologies and multidisciplinary approaches to address the pressing challenges of contemporary urbanization (Lechner, 2015).

These challenges are particularly relevant in an era of accelerated and intricate transformations, where global crises - ranging from climate change to social inequality - are increasingly urgent and perceptible. Historically, thinkers, scientists, artists, and urbanists have examined radical societal shifts and systemic transitions, focusing on the need to reassess humanity's impact on the planet (Butera, 2021). While oracles and divinatory practices once shaped visions of the future, today's predictive processes rely on algorithms, artificial intelligence, and advanced technologies. Yet, the future is not merely anticipated - it is actively designed. Every act of design constitutes a step toward constructing possible futures, materializing solutions that shape what does not yet exist (Grosso, 2017). In this context, TDW emerges as a crucial space for envisioning and crafting the future of the built environment, bridging the gap between technological innovation and the ethical, social, and environmental responsibilities of design. The debate stimulates reflection on the role of design and architecture in fostering sustainable and inclusive futures, questioning how design can function as a catalyst for social and environmental transformation. More than ever, design must renegotiate the relationship between innovation and society, identifying new pathways to address contemporary crises.

Far from being a mere instrument for aestheticizing the

present, design must operate as an agent for shaping equitable and sustainable futures. Empathetic design - an approach rooted in sustainability and inclusion - offers a viable trajectory. Biomimetic architecture, self-regenerating materials, and adaptive solutions inspired by natural systems exemplify strategies that design can leverage to confront climatic and economic challenges (Di Salvo, 2020). Beyond constructing buildings, design must reimagine entire cities in response to both community and planetary needs. In fact, design has never been a neutral practice. World expositions have frequently framed technological progress through a Eurocentric lens, marginalizing entire populations from the future's narrative. Tony Fry's concept of defuturing underscores how design has often eliminated alternative possibilities by reinforcing dominant cultural paradigms (Fry, 1999). In an era increasingly marked by inequality, design bears the ethical responsibility to function as a vehicle for social justice. The pandemic, geopolitical conflicts, and climate change have further underscored the necessity for design strategies attuned to human and environmental vulnerabilities (Omar et al 2024).

Design education must undergo a paradigm shift, embracing a transdisciplinary and inclusive perspective capable of addressing global crises through holistic and collaborative frameworks. Designing for low-income communities is not merely an act of social responsibility but an opportunity to reconfigure production and consumption models toward greater equity and sustainability. In this evolving context, design assumes a fundamental role in shaping a new humanism - one where quality of life, security, and sustainability emerge as guiding principles. The future is not an inevitable outcome - it is actively constructed through our choices and actions. Now, more than ever, design must serve as the bridge between present realities and the possibilities of tomorrow.

Among the most significant contributions, *Annalisa Lanza Volpe* explores the application of artificial intelligence (AI) in sustainable architecture and design stands out. Artificial Intelligence for Sustainable Architecture and Design explores the potential of AI in optimizing design strategies, with a particular focus on the integration of Building Information Modelling (BIM) and Life Cycle Assessment (LCA). The selection of appropriate design strategies requires careful evaluation to mitigate the environmental impact of the built environment. Sustainable architecture necessitates an interdisciplinary approach and the adoption of AI-based digital tools, which are emerging as catalysts for methodological transformation in the construction sector. The implementation of advanced digital tools, combined with a data-driven approach, is redefining design methodologies, enhancing the energy efficiency and sustainability of built structures. The use of generative AI further expands the possibilities of design exploration, enabling the development of more resilient and adaptive buildings capable of dynamically responding to climatic and energy challenges.

Technological innovation and the role of design extend far beyond the architectural domain, also finding applications in mobility and industrial design. *Gregor Andoni* examines the phenomenon of hyper-personalization in automotive design, demonstrating how emerging technologies are redefining the relationship between humans and machines. The integration of artificial intelligence, machine learning, and predictive analytics enables the creation of tailored solutions for each user, transforming every vehicle into a highly adaptive environment. The automotive experience is no longer limited to aesthetic configuration but extends to intelligent ergonomic systems, advanced sensory interfaces, and interactive dynamics capable of anticipating the driver's needs. At the same time, *Andoni* reflects on the ethical and environmental implications of extreme personalization, questioning the impact of custom component production on the sustainability of product life cycles. His study suggests that hyper-personalization is not merely a technological innovation but a design challenge with profound implications for 21st-century mobility.

The investigation into models of design transformation extends to the field of architectural rehabilitation, with the contribution of *Armela Lamaj and Flogerta Krosi* on the reconfiguration of modular façades in large, prefabricated buildings. Applying the principles of Gestalt theory, the authors analyze the perceptual and functional implications of modifications made to existing structures, highlights how the visual and spatial quality of building surfaces affects their integration within the urban context. The contribution underscores the need of a design approach that considers the relationship between aesthetics and functionality, adopting criteria of symmetry, rhythm, and formal coherence while avoiding discordant interventions that may compromise architectural language consistency. Among the key topics examines, the research analyzes the ability of modular façades to maintain a cohesive visual identity despite the introduction of new elements, demonstrating that

compositional strategies based on Gestalt principles can serve as effective tools for the revitalization of the built environment. Furthermore, critical reflection on the role of design extends to the field of artistic and performative practices, emphasizing their potential as instruments of social transformation.

Francesco Scasciamacchia analyzes the concept of repoliticization in performative art through *What Struggles Do We Have in Common? by the collective Chto Delat?* exploring the relationship between aesthetics and activism within contemporary art institutions. His study illustrates how the group subverts the conventions of art galleries by transforming them into spaces of political experimentation, employing Brechtian learning play to investigate the dialectic between depoliticization and repoliticization. Through a Marxist dialectical framework, the performance does not merely expose the conflict between artists and activists but reconfigures it to stimulating new forms of social and political participation. The author critiques the performative turn, highlighting how many artistic practices have been assimilated into neoliberal logics without challenging their underlying power structures.

In contrast, *Chto Delat?* employs Brechtian estrangement to activate a critical reflection on contemporary contradictions and the possibilities for collective action. This contribution provides critical insights into how art can function as a tool for social transformation, redefining the boundaries between representation, participation, and power. In a context increasingly dominated by cultural commodification, *What Struggles Do We Have in Common?* emerges as a political experiment that rethinks the role of art between activism and public space.

The issue also extends to education and the role of academic institutions, with a particular focus on the Third Mission of Universities, namely their contribution to society beyond teaching and research. These contributions outline a complex panorama in which design, architecture, and art emerge as instruments of innovation, experimentation, and social critique. This edition of *Forum A+P* thus provides a space for reflection on ongoing transformations, questioning not only the potential of technology and design but also the ethical, environmental, and political implications of design choices. Design is never a neutral act: whether in the creation of built environments, the development of new human-machine interfaces, or its intersection with artistic practices, it actively participates in the redefinition of cultural models and social dynamics. The future is not an abstract entity but a process in continuous development, which design is called upon to shape consciously, reflecting on its responsibilities and transformative potential. *Besnik Aliaj, Aleksandër Xhuxvani, Xhiliola Bixheku, and Mira Idrizi* analyze the role of the Third Mission in Albanian higher education, focusing on the need for a stronger link between Universities and society and the identification of new indicators to measure the impact of academic institutions on the labor market and the community. Their study analyzes the challenges faced by higher education institutions (HEIs) in Albania in aligning with international standards for the Third

Mission, which was structured around three main areas of activity: lifelong learning, technology transfer and innovation, and social engagement.

The analysis highlights how, despite being recognized as a strategic component in European universities, the Third Mission remains underdeveloped in Albania, with incomplete measurement of its activities and insufficient integration into institutional planning. Despite growing awareness of its importance, Albanian higher education struggles to adapt to socio-economic changes and labor market demands. This has led to a proliferation of degree programs that often replicate similar content, resulting in excessive competition among graduates and a misalignment with the actual employment needs of the Country.

Furthermore, the contribution highlights the need for a more structured regulatory and funding framework to support the development of the Third Mission in Albanian universities. Currently, the absence of a clear national employment system for first-degree graduates has led to a continuous enrollment in further study cycles, often without a genuine professional necessity. Concurrently, the dissemination of technological advancements and innovation remains constrained, with limited synergies between universities and the business sector, particularly in non-metropolitan areas. To address these challenges, the authors propose a system of indicators and methodologies to evaluate the contribution of the Third Mission in Albanian universities, drawing inspiration from best European practices. The adoption of consistent evaluation tools could enhance the ability of higher education institutions (HEIs) to respond to societal needs, strengthening their role not only as educational institutions but also as agents of economic and social development. Thus, the research not only provides a critical overview of the current state of higher education in Albania but also suggests strategies for more effectively integrating the Third Mission into university governance and national policies for education and innovation.

The workshops of the Tirana Design Week provide a setting for experimentation and learning on emerging themes in the fields of design and architecture, promoting innovative methodologies and advanced technological tools. Among these, the Drones for Architectural Scenarios workshop, led by *Giuseppe Di Salvo*, *Artan Kacani*, *Kejsi Veselagu*, and *Armela Reka*, introduced students to the use of drones in architectural design, explored both technical and regulatory aspects. During the five-day workshop, participants examined the structural and electronic components of drones, acquired skills in remote control and the use of the *DJI Fly* app. Practical sessions focused on flight training in urban environments, video capture techniques, and collaborative content production, allowing students to experiment with concrete applications in architectural and urban surveying. A crucial aspect of the workshop was the in-depth exploration of safety procedures and operational protocols, with particular attention to equipment verification, pre-flight checks, and emergency management. Additionally, the workshop included discussions on ethical implications

and responsibilities associated with the use of drones for architectural purposes, encouraging a critical reflection on the integration of these technologies within the construction sector.

The Finishing Technology of the Building workshop, led by *Albi Alliaj*, *Merita Guri*, and *Mirela Klllogjri*, delved into the applications of Building Information Modelling (BIM) in façade design and structural optimization. The workshop combined theoretical lessons with practical exercises, including factory visits and presentations by industry experts, such as professionals from Saint Gobain. Students developed an advanced understanding of BIM applied to innovative façade design, explored algorithms for structural element optimization, and used computational tools for modeling and evaluating construction performance. The methodological approach included practical activities involving the modeling of walls based on Saint Gobain specifications, alongside the application of algorithms to determine optimal sections and structural reinforcements. This educational pathway enabled students to acquire industry-aligned competencies, preparing the next generation of designers to integrate digital technologies and advanced processes into architectural practice.

The *CHIC-ETIC* workshop, coordinated by *Esmeralda Marku* and *Andreas Reiter*, enabled an interdisciplinary dialogue among architecture and urban planning students on social responsibility in the production of consumer goods. The initiative highlighted the urgency of an ethical and sustainable approach in both design and business management. The main objective of the workshop was to heighten participants' awareness of the fundamental need to integrate business practices that uphold human rights and environmental stewardship within product design and manufacturing. The discussion addressed the persistent disconnect between designers and producers, emphasizing the importance of inclusive and responsible decision-making frameworks. The pedagogical approach was rooted in direct engagement between students from various disciplinary backgrounds, fostering critical analysis on the challenges and prospects of a more ethical industry. Through roundtable discussions and collaborative brainstorming, participants explored case studies and devised strategies for the development of sustainable business models. Particular attention was given to the intersection of aesthetics and responsible production, highlighting how a product's value depended not only on its formal attributes but also on the conditions under which it was produced and the narratives embedded in its creation.

The reflections emerging from the workshop prompted a broader examination of the economic and social implications of increasing consumption. While rising demand for goods stimulated production and employment, it also risked undermining labor rights and ethical manufacturing standards. Participants underscored the necessity of fostering business strategies that prioritized sustainable employment practices, equitable wages, and worker well-being. Among the workshop's key conclusions is the fundamental role of corporate storytelling in strengthening the relationship between

consumers and producers. Integrating workers' accounts into product communication enhances an emotional connection with the public, thereby improving brand perception and value. Moreover, discussions reinforce the critical importance of fair wage models, transparent and safe working conditions, and the proactive engagement of companies in fostering positive social impact. These reflections extend beyond the scope of individual workshops, emphasizing the broader necessity of rethinking design as a tool for ethical and sustainable transformation.

This perspective aligns with the central themes of *Tirana Design Week 2023*, where interdisciplinary dialogue has underscored the need to redefine design practices not only in response to climate emergencies and digital transformation but also to address the deep social inequalities that still shape the built environment. *The New Worlds* imagined today must be open and accessible spaces where technological innovation and sustainability translate into more equitable and inclusive environments, capable of responding to the cultural, economic, and physical diversity of communities. In this scenario, rethinking urban planning and architecture through an integrated perspective - one that intertwines technology, sustainability, and inclusivity - is not merely a design requirement but an ethical imperative. The design of the future cannot be limited to solving technical problems; it must create opportunities for collective participation and the development of spaces that ensure well-being, accessibility, and representation for all. Redefining the relationship between the built environment and society means dismantling both physical and symbolic barriers that continue to exclude vulnerable groups, transforming design into a tool for equity and social justice.

References

- Lechner, N. (2015). *Heating, Cooling, Lighting: Sustainable Design Methods for Architects*. Wiley.
- Butera, F. M. (2021). *Affrontare la complessità*. Ed. Ambiente, Milano.
- Grosso, M. (2017). *Il raffrescamento passivo degli edifici*. Maggioli, Rimini.
- Di Salvo, S. (2020). *New Technologies for Adaptive Architecture*. Springer International Publishing.
- Fry, T. (1999). *A New Design Philosophy: An Introduction to Defuturing*. UNSW Press.
- Omar, O., & El Sayary, S. (2024). The Resilience Principles of the Built Environment in Light of Climate Change and the Post-pandemic Era. In *Resilience vs Pandemics: Innovations in Public Places and Buildings* (pp. 137-152). Singapore: Springer Nature Singapore.