



ATHENS INSTITUTE

Abstract Book

**12th Annual International Conference on
Geography & Regional Studies
1-6 June 2026, Athens, Greece**

**Edited by
Jesus J. Lara & Olga Gkounta**

2026

Abstracts
12th Annual International
Conference on Geography &
Regional Studies

1-6 June 2026, Athens, Greece

Edited by

Jesus J. Lara & Olga Gkounta

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Preface

This book includes the abstracts of all the papers presented at the 12th Annual International Conference on Geography & Regional Studies (1-6 June 2026), organized by the Athens Institute.

A full conference program can be found before the relevant abstracts. In accordance with Athens Institute's Publication Policy, the papers presented during this conference will be considered for inclusion in one of the Athens Institute's many publications only after a blind peer review process.

The purpose of this abstract book is to provide members of the Athens Institute and other academics around the world with a resource through which they can discover colleagues and additional research relevant to their own work. This purpose is in congruence with the overall mission of the association. Athens Institute was established in 1995 as an independent academic organization with the mission to become a forum where academics and researchers from all over the world can meet to exchange ideas on their research and consider the future developments of their fields of study.

To facilitate the communication, a references section includes all the abstract books published as part of this conference (Table 1). I invite the readers to access these abstract books –these are available for free– and compare how the themes of the conference have evolved over the years. According to the Athens Institute's mission, the presenters in these conferences are coming from many different countries, presenting various topics.

Table 1. *Publication of Books of Abstracts of Proceedings, 2015-2026*

Year	Papers	Countries	References
2026	30	14	Lara and Gkounta (2026)
2025	41	21	Pellegri and Gkounta (2025)
2024	33	15	Pellegri and Gkounta (2024)
2023	47	19	Patricios and Gkounta (2023)
2022	42	20	Patricios and Gkounta (2022)
2021	26	13	Papanikos (2021)
2020	24	16	Papanikos (2020)
2019	35	22	Papanikos (2019)
2018	34	22	Papanikos (2018)
2017	18	14	Papanikos (2017)
2016	26	19	Papanikos (2016)
2015	31	17	Papanikos (2015)

It is our hope that through Athens Institute's conferences and publications, Athens will become a place where academics and researchers from all over the world can regularly meet to discuss the developments of their disciplines and present their work. Since 1995, Athens Institute has organized more than 400 international conferences and has published over 200 books. Academically, the institute is organized into 7 divisions and 37 units. Each unit organizes at least one annual conference and undertakes various small and large research projects.

For each of these events, the involvement of multiple parties is crucial. I would like to thank all the participants, the members of the organizing and academic committees, and most importantly the administration staff of the Athens Institute for putting this conference and its subsequent publications together.

Gregory T. Papanikos
President

Editors' Note

These abstracts provide a vital means to the dissemination of scholarly inquiry in the field of Geography & Regional Studies. The breadth and depth of research approaches and topics represented in this book underscores the diversity of the conference.

Athens Institute's mission is to bring together academics from all corners of the world in order to engage with each other, brainstorm, exchange ideas, be inspired by one another, and once they are back in their institutions and countries to implement what they have acquired. The *12th Annual International Conference on Geography & Regional Studies*, accomplished this goal by bringing together academics and scholars from 14 different countries (Brazil, Canada, Denmark, France, Germany, Israel, Italy, Panama, Poland, Portugal, Spain, Türkiye, UK, USA), which brought in the conference the perspectives of many different country approaches and realities in the field.

Publishing this book can help that spirit of engaged scholarship continue into the future. With our joint efforts, the next editions of this conference will be even better. We hope that this abstract book as a whole will be both of interest and of value to the reading audience.

Jesus J. Lara & Olga Gkounta
Editors

12th Annual International Conference on Geography & Regional Studies, 1-6 June 2026, Athens, Greece

Organizing & Scientific Committee

All Athens Institute's conferences are organized by the Academic Council. This conference has been organized with the assistance of the following academic members of Athens Institute.

Dr. Gregory T. Papanikos, President, Athens Institute & Professor (Adjunct), University of Tennessee, Knoxville, USA.

Dr. Jesus J. Lara, Head, Urban & Regional Planning Unit, Athens Institute & Professor, Michigan State University, USA.

Dr. Keshav Bhattarai, Academic Member, Athens Institute & Professor and Geography Program Coordinator, University of Central Missouri, USA.

Dr. Lampros Pyrgiotis, Research Fellow, Athens Institute.

FINAL CONFERENCE PROGRAM
12th Annual International Conference on Geography & Regional Studies, 1-6 June 2026, Athens, Greece

PROGRAM

Monday 1 June 2026

<p>08:30-09:15 Registration 09:15-10:00 Opening Speech and Welcoming Remarks Speaker: Gregory T. Papanikos, President, Athens Institute & Professor (Adjunct), University of Tennessee, Knoxville, USA.</p>	
<p>10:00-11:30 Session 1</p>	
<p>Session 1a Moderator: Jesus J. Lara, Head, <u>Urban & Regional Planning Unit</u>, Athens Institute & Professor, Michigan State University, USA.</p>	<p>Session 1b Moderator: Nicolas Rodriguez Terrazas, Teacher, Marbella Design Academy, Spain.</p>
<ol style="list-style-type: none"> 1. Andreea Nita, Professor, University of Granada, Spain. <i>Title: A Network-Based Framework for Unified Transport System Indicators.</i> 2. Pascal Ricordel, Associate Professor, Université Le Havre Normandie, France. <i>Title: Crowdsourcing and Proximity Mapping in the Evaluation of Urban Transformation Plans.</i> 3. Cem Kayatekin, Assistant Professor, IE University, Spain. Ujal Gorchu, PhD Student, Politecnico di Milano, Italy. <i>Title: The Persistence of the Line: Revisions of Linear Urbanism from Soria to Saudi Arabia.</i> 4. Sevgiye Sonmez Ozdemir, PhD, Urban Planner, Istanbul Technical University, Türkiye. <i>Title: Traces of Socio-Spatial Transformation in Istanbul from the Republican Era to the Present: A Historical and Cultural Analysis through Bakırköy Case Studies.</i> 	<ol style="list-style-type: none"> 1. Joanna Hadjicostandi-Anang, Professor, The University of Texas Permian Basin, USA. <i>Title: "Refugees' Lives Revisited: Ten Years Later."</i> 2. Joshua Barrett, Assistant Professor, Memorial University of Newfoundland, Canada. <i>Title: From Path Dependency to Path Renewal? The Reinvention of Local Economies in Rural Resource Communities in Newfoundland and Labrador, Canada, through Partnerships.</i> 3. Piotr Razniak, Assistant Professor, University of the National Education Commission, Krakow, Poland. <i>Title: The Importance of Command-and-Control Functions in Cities in the World Scale.</i> 4. Rafal Grulke, PhD Student, University of Lodz, Poland. Maciej Ziulkiewicz, Associate Professor, University of Lodz, Poland. <i>Title: The Role of Hyporheic Corridors in Water Exchange: Implications for Surface Water Quality.</i>
<p>11:30-13:00 Session 2 Moderator: Piotr Razniak, Assistant Professor, University of the National Education Commission, Krakow, Poland.</p>	
<ol style="list-style-type: none"> 1. Jesus Lara, Professor, Michigan State University, USA. <i>Title: Negotiating Belonging: Cultural Agency and the Reinterpretation of Urban Space.</i> 2. Gregorio Froio, Adjunct Professor, University of Calabria, Italy. <i>Title: Hybrid Teaching and the Project: The Realm of the Sacred in the Age of Hyper-Consumption.</i> 	

<p>3. Nicolas Rodriguez Terrazas, Teacher, Marbella Design Academy, Spain. <i>Title: A Multi-Scale Framework for Circular Design across Material, Urban, and Social Systems.</i></p> <p>4. Emil Maj Christensen, Urban Planner, Danish Cyclists' Federation, Denmark. <i>Title: Cycling-Friendly Urban Development Beyond Big Cities: Integrating Cycling in Low-Density Areas.</i></p> <p>5. Carlos Balsas, Lecturer, BSABE – Ulster University, UK. <i>Title: The (Biodiversity) Killings of the Academic Urban Growth Machine.</i></p>	
<p>13:00-14:30 Session 3 – A Microsymposium on “Rethinking Urban and Regional Futures in the Age of AI and Global Change” Moderator: Jesus J. Lara, Head, <u>Urban & Regional Planning Unit</u>, Athens Institute & Professor, Michigan State University, USA.</p>	
<p>1. Paulette Hebert, Professor, Oklahoma State University, USA. <i>Title: AI Implications for Design Education and Practice.</i></p> <p>2. Imge Akcakaya Waite, Associate Professor, Istanbul Technical University, Türkiye. <i>Title: The Politics of Urban Planning amid AI Assistance and Intrusion.</i></p> <p>3. Pascal Ricordel, Associate Professor, Université Le Havre Normandie, France. <i>Title: Urban Planning: A Critical Look at Crowdsourcing Resource for Governance.</i></p> <p>4. Cem Kayatekin, Assistant Professor, IE University, Spain. <i>Title: AI and the Rebirth of Smart City Hype.</i></p> <p>5. Gregorio Froio, Adjunct Professor, University of Calabria, Italy. <i>Title: The Importance of Drawing and Manual Modelling in the Age of AI.</i></p> <p>6. Ayse Glass, Interim Professor, Hafencity University Hamburg, Germany. <i>Title: Experiences from applied projects and teaching: AI and Digital Methods in Urban Planning and Building Science.</i></p> <p>7. Timothy M. Young, Emeritus Professor, The University of Tennessee, USA & CEO and President, T.M. Young Institute, LLC, USA. <i>Title: The Role of Humanity in an AI-Dominated World.</i></p>	
<p>Interventions</p> <p>1. Joanna Hadjicostandi-Anang, Professor, The University of Texas Permian Basin, USA.</p> <p>2. Myriam Teresita Calvo de Morales, Urban Planning and Development Director, City of Knowledge Foundation, Panama.</p>	
<p>14:30-15:30 Lunch</p>	
<p>18:00-20:00 Session 4 – Visit Aristotle’s Lyceum</p>	
<p>It requires pre-booking</p>	
<p>20:30-22:30 Athenian Early Evening Symposium (Sequence of Events: Ongoing Academic Discussions, Dinner, Wine and Water, Music, Dance)</p>	
<p>Tuesday 2 June 2026</p>	
<p>09:00-10:30 Session 5</p>	
<p>Session 5a Moderator: Carlos Balsas, Lecturer, BSABE – Ulster University, UK.</p>	<p>Session 5b Moderator: Konstantinos Manolidis, Athens Institute.</p>
<p>1. Jadwiga Urbanik, Associate Professor, Wrocław University of Science and Technology, Poland. Jerzy Ilkosz, Director, The Wrocław Museum of Architecture, Poland. <i>Title: Unwanted Heritage – The Wrocław Housing</i></p>	<p>1. Giulia Pellegrini, Vice Rector & Associate Professor, University of Genoa, Italy. <i>Title: From Data to Meaning: Interpreting Urban Complexity</i></p>

<p><i>Estates of the Schlesische Heimstätte Company from the Period 1933-1940.</i></p> <p>2. Imge Akcakaya Waite, Associate Professor, Istanbul Technical University, Türkiye. <i>Title: Many Voices, Different Pathways: Pluralist Urban Mobilities Across Theory and Practice.</i></p> <p>3. Edyta Naworska, PhD Student, Wrocław University of Science and Technology, Poland. <i>Title: RFG's Concepts of Building Rationalization and the Development of Modern Housing in Wrocław during the 1920s.</i></p> <p>4. Havi Livne, PhD Candidate, Tel Aviv University, Israel. Efrat Blumenfeld-Lieberthal, Professor, Tel Aviv University, Israel. Michal Gruntman, Professor, Tel Aviv University, Israel. <i>Title: Small Spaces, Big Potential: The Ecological and Planning Value of Shared Residential Yards.</i></p>	<p><i>in the Age of Digital Representation.</i></p> <p>2. Michela Scaglione, Assistant Professor, University of Genoa, Italy. <i>Title: Beyond Representation: Regimes of Visibility and Cognitive Conditions for the Acceptance of Environmental Infrastructures in Urban Design.</i></p> <p>3. Daniela Pittaluga, Associate Professor, University of Genoa, Italy. <i>Title: Sustainable Urban Assessment of Historic City Centers: YAZD City.</i></p> <p>4. Sara Eliche, Lecturer, University of Genoa, Italy. <i>Title: Representation, Surveying and the Culture of Space: Epistemology, Visual Thinking and Art – Architecture Contaminations for a Reflexive Technical Education.</i></p>
<p>10:30-12:00 Session 6 Moderator: Andreea Nita, Professor, University of Granada, Spain.</p>	
<p>1. Ayse Glass, Interim Professor, HafenCity University Hamburg, Germany. Jörg Müller-Lietzkow, Professor, HafenCity University Hamburg, Germany. Jörg Rainer Noennig, Professor, HafenCity University Hamburg, Germany. Zahra Rostami, Student, HafenCity University Hamburg, Germany. <i>Title: Scenario-Based Development of a Hybrid Digital Twin for Smart and Sustainable Urban Train Stations: The Case of Harburg Station.</i></p> <p>2. Andrea Giorgi, Head, Department of Graphic Design, Marbella Design Academy, Spain. <i>Title: Designing Coexistence: Speculative Design and Social Innovation within Degrowth Scenarios for 2045.</i></p> <p>3. Felix Merkelbach, Master's Student, Marbella Design Academy, Spain. <i>Title: Examining Social Innovation in Sim-Citizens and Augmented Stewards via Artificial Intelligence Applications.</i></p> <p>4. Line Nilsskog, Master's Student, Marbella Design Academy, Spain. <i>Title: Cultural Homogenisation in a Fully Standardised Society: Divergent Citizens in a Speculative Scenario Analysis.</i></p>	
<p>12:00-13:30 Session 7 Moderator: Ayse Glass, Interim Professor, HafenCity University Hamburg, Germany.</p>	
<p>1. Paulette Hebert, Professor, Oklahoma State University, USA. <i>Title: Exploratory Study of Historic Temple Pilgrims in Sri Lanka.</i></p> <p>2. Niel Teixeira, Full Professor and Researcher, Universidade Estadual de Santa Cruz (UESC), Brazil. Gil Strenzel, Full Professor and Researcher, Universidade Estadual de Santa Cruz (UESC), Brazil. Malena Miranda, Researcher, Universidade Estadual de Santa Cruz (UESC), Brazil. <i>Title: Annual Analysis of Shoreline Variation in the Municipalities of Ilhéus, Una, and Uruçuca (Costa do Cacaú), Bahia, Brazil.</i></p>	

3. **Isabel Maria Madaleno**, Researcher (Retired), University of Lisbon, Portugal.
Title: Cultural Landscapes and Flora in Sophia de Mello Poetry.
4. **Giada Terenziani**, PhD Student, Sapienza University of Rome, Italy.
Title: Urban Aridities: New Adaptation Strategies for Consolidated European Cities.
5. **Sofia Gabriela Fernandez Balmaceda**, PhD Candidate, Sapienza University of Rome, Italy.
Title: Viability of a Green-Blue Infrastructure Network for Rome: A Macro-Spatial Analysis Based on Its Urban Geography.

13:30-14:30 Lunch

16:30-19:30 Session 8

Old and New-An Educational Urban Walk

The urban walk ticket is not included as part of your registration fee. It includes transportation costs and the cost to enter the Parthenon and the other monuments on the Acropolis Hill. The urban walk tour includes the broader area of Athens. Among other sites, it includes: Zappion, Syntagma Square, Temple of Olympian Zeus, Ancient Roman Agora and on Acropolis Hill: the Propylaea, the Temple of Athena Nike, the Erechtheion, and the Parthenon. The program of the tour may be adjusted, if there is a need beyond our control. This is a private event organized by the Athens Institute exclusively for the conference participants.

20:30-22:30

Closing Remarks by Gregory T. Papanikos: “Wine, Words, and Wisdom: An Ancient Athenian Dinner Symposium” followed by an Ancient Athenian Dinner

Wednesday 3 June 2026
An Educational Visit to Selected Islands
or Nafplio & Mycenae Visit

Thursday 4 June 2026
Visiting the Oracle of Delphi

Friday 5 June 2026
Visiting the Ancient Corinth and Cape Sounion

Saturday 6 June 2026
10:00-11:00 - The Academic Discussion continues in the downtown open agora (close to the Aristotelian Lyceum)

Carlos Balsas

Lecturer, BSABE - Ulster University, UK

The (Biodiversity) Killings of the Academic Urban Growth Machine

Property development, roads, vehicles, and suburban sprawl cause biodiversity habitat fragmentation. Some herpetofauna are at risk from a conservation perspective. This phenomenon is simultaneously a road ecology and a public health problem. The article analyzes the impact of “campus-based growth machine” development on herpetofauna habitat fragmentation around various wetlands in uptown Albany, New York, U.S. This study fills an unresearched gap on the impact of campus-based growth machine, roads, vehicles, and suburban sprawl on biodiversity habitat fragmentation. The research methods comprised both qualitative and quantitative assessments of property development inventories, wildlife observations, student engagements and biodiversity auscultations at the University at Albany, the cataloguing of test-design and conservation measures, and the review of institutional planning regulations and roadway design features. The key finding is the need for more biodiversity conservation innovations to increase the continuity of habitats, uniform underground crossings, and the elimination of biodiversity road crossing deaths. The paper presents research and management practice recommendations. The paper is one of the first studies to establish a direct link between university expansion and biodiversity reductions on campus grounds. The paper also identifies potential mitigation measures and opportunities for community service collaborations.

Joshua Barrett

Assistant Professor, Memorial University of Newfoundland, Canada

**From Path Dependency to Path Renewal?
The Reinvention of Local Economies in Rural Resource
Communities in Newfoundland and Labrador, Canada,
through Partnerships**

Rural areas are predisposed with rich natural assets which are attractive to resource-based sectors, ranging from renewables, such as fishery to forestry, to non-renewables, including mining and oil and gas. Despite the potential benefit of these sectors to the local economy, rural communities often entrench themselves in a path dependent relationship with these commodities, creating barriers to facilitate economic diversification opportunities, paired with the cyclic nature of the boom-bust cycle. Using Newfoundland and Labrador, Canada, as a case study, this paper highlights ways that rural communities can reinvent their local economies by redefining their path dependency arrangements and experience path renewal. The Towns of Fogo Island, Bonavista, Grand Falls-Windsor, and the Great Northern Peninsula have been effective in utilizing economic development partnerships to help transform governance in their communities that has helped break path dependency. These findings have potential to assist resource-dependent communities in their rural economic development activities.

Emil Maj Christensen

Urban Planner, Danish Cyclists' Federation, Denmark

Cycling-Friendly Urban Development Beyond Big Cities: Integrating Cycling in Low-Density Areas

While cycling is often associated with dense urban areas, most new urban development in Denmark still takes place in low-density environments such as detached housing districts. The project *Cykelvenlig Byudvikling* (Cycling-Friendly Urban Development) by the Danish Cyclists' Federation explores how cycling can become a natural and attractive part of everyday mobility even in these suburban contexts.

Through multiple rounds of mapping and analysis of 34 development areas across Denmark, the project combines geodata, urban form assessment, and socioeconomic context to identify spatial and behavioural barriers to cycling. The work results in a set of planning recommendations tailored to different density levels—low, medium, and high—highlighting how design principles such as network connectivity, proximity to destinations, and integration of daily services can significantly improve cycling rates regardless of density.

The findings demonstrate that cycling-friendly planning is not only relevant for major cities but can be systematically embedded in suburban and small-town development. This broadens the scope of cycling policy and supports a more equitable, sustainable urban transformation.

The project shows that targeted planning principles increase cycling levels in both dense urban and low-density suburban areas. It delivers concrete design recommendations that help planners and policymakers create future housing areas where cycling is convenient, safe, and accessible for all residents.

Many European countries face similar development patterns with expanding low-density suburbs. The project's evidence-based recommendations and typology-based approach can easily be adapted to different geographical and cultural contexts to support everyday cycling beyond the major cities.

Sara Eriche

Lecturer, University of Genoa, Italy

**Representation, Surveying and the Culture of Space:
Epistemology, Visual Thinking and Art – Architecture
Contaminations for a Reflexive Technical Education**

Representation and surveying constitute a complex epistemic field within technical education, where perceptual, geometric and design competences converge into a unified cognitive process. Far from being merely operative skills, they function as mediating devices between experience, thought and project. In parallel, the evolution of twentieth-century visual culture – from the historical avant-gardes to the digital turn – has profoundly reshaped the conception of space, materiality and form. These transformations offer a fertile theoretical background for rethinking the pedagogy of representation.

This paper develops an integrated framework connecting epistemological foundations, laboratory-based methodologies, digital innovation and the cultural legacy of art–architecture contaminations. Through a critical review of cognitive models, design theories and spatial experimentations, the study proposes a reflective and inclusive approach to teaching representation. The argument is supported by methodological insights and applied experiences, highlighting how visual thinking, surveying practices and digital modelling can foster meaningful learning and design awareness. The paper aims to advance a pedagogical paradigm capable of forming technically competent, culturally aware and critically autonomous professionals.

Sofia Gabriela Fernandez Balmaceda

PhD Candidate, Sapienza University of Rome, Italy

Viability of a Green-Blue Infrastructure Network for Rome: A Macro-Spatial Analysis Based on its Urban Geography

The “Environmental System” (*Sistema Ambientale*), one of the three founding pillars of Rome's current Regulatory Plan (NPRG, 2008), reflects, in the Plan's cartography, both the current situation and the forecasts regarding green spaces, landscape heritage, and the city's physical-naturalistic (in Italian, *fisico-naturalistici*) assets.

One of its components is the so-called “Ecological Network” (*la Rete Ecologica del Piano*), defined by the plan's “Technical Implementation Rules” (*Norme Tecniche di Attuazione*) as «the set of the main ecosystems in the municipal territory and their connections».

This component of the Plan stipulates the rules (which are prescriptive in nature) for the implementation of urban plans, programs, and projects with a view to strengthening the ecosystem of this “Network”.

On this prescriptive basis, this contribution proposes a macro-spatial analysis on what Lelo, Monni, and Tomassi (2021) refer to as the “Compact City” (*la Città Compatta*), that territory with the highest population density in the city, which accounts for almost a 40% of its population, a territory that links the historical fabric of the city with that of the 20th-century urban expansion and with the city's protected park areas (*Aree a Parchi Istituiti*).

In this macro-spatial study, with the support of open source geographical information systems (GIS), the author analyses the possibilities for integrating Green- Blue Infrastructure into the connecting routes between areas designated for green spaces and public services by the Plan.

Taking into account the proximities between the urban fabric and the urban basin system, Green-Blue infrastructures will be analyzed as potential instruments for urban spatial reconnection from a systemic planning perspective and as potential drivers for a progressive configuration of a network of sustainable rainwater absorption areas.

Gregorio Froio

Adjunct Professor, University of Calabria, Italy

Hybrid Teaching and the Project: The Realm of the Sacred in the Age of Hyper-Consumption

This essay critically reflects on the teaching of sacred architecture in a contemporary academic context. Specifically, it examines the research lineage established by Professor Franco Purini at the Faculty of Architecture in Rome between 2004 and 2012. This pedagogical experiment aimed to address the theme of the 'sacred' not as an isolated refuge, but as a dimension fully immersed in the 'era of hyper-consumption'. In a society defined by digital immediacy and image consumption, the text argues that the concept of the sacred must embrace contamination, blending spaces of prayer with the vital flows of commerce, culture and social interaction.

The essay establishes a theoretical framework based on the etymology of 'sacred' (from the Latin *sacer*, meaning 'separate' or 'set apart') and its antithetical relationship with the profane. Drawing heavily on the theological writings of Romano Guardini, the text defines liturgy as an 'objective' phenomenon. Guardini asserts that the subject of liturgy is not the individual 'I', but the collective 'We' – the body of the Church. Consequently, liturgical architecture must transcend personal stylistic preferences to achieve universality and solemnity. This approach demands a severe, measured style in which space, colour and sound are derived from elemental spiritual forces rather than decoration.

The text links this theological perspective with the work of 20th-century architectural masters, particularly Rudolf Schwarz and Mies van der Rohe. Schwarz is quoted as saying that the church is a 'living structure', and that the act of building is a form of prayer in itself. Similarly, influenced by Guardini, Mies van der Rohe sought to harmonise the new forces of civilisation (technology) with the internal structure of the human spirit, aiming for an objective, civilising architecture.

A crucial conceptual shift in the text is the evolving perception of the human body. In the contemporary era, the body is no longer the static model of humanism or the 'machine for living' of early modernism. Instead, it is a hybridised entity, modified by genetics and extended by technology – a body suspended between physical, organic reality and the immateriality of cyberspace. The essay argues that architectural education must address this 'disarticulated' body, where the physical and digital realms converge.

Against this theoretical backdrop, Purini's design workshops put forward a radical idea: the design of a 'Centre for the Spirit' situated within a large shopping mall complex on Rome's Great Ring Road (GRA). The juxtaposition of a multi-faith religious centre and spaces for mass commerce and leisure was intentional. The aim was to create friction, with the sacred playing a paradoxically 'desacralising' role against the forces of globalisation.

The pedagogical method was structured into three phases to foster critical awareness and the development of a personal design language. In a first phase, *The Morpheme*, students began by designing an elemental formal configuration (a 'genetic code' for the project) conceived as a standalone work of art; in a second phase, *The Master Plan*, an abstract form was then evolved into a complex urban strategy; a final phase is the *Architectural Theme*, where specific buildings were detailed.

The essay concludes with an analysis of a specific Master's thesis from 2007–2008 that exemplifies this approach.

Andrea Giorgi

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Spain

Designing Coexistence: Speculative Design and Social Innovation within Degrowth Scenarios for 2045

This study explores the potential of speculative design as a catalyst for social innovation within economic and territorial paradigms inspired by degrowth principles. In an era increasingly defined by environmental crises and social polarization, the research projects itself into a speculative 2045 scenario to analyze the structural tensions between social groups holding antithetical values regarding growth, technology, and resource management.

Rather than adopting a deterministic view that treats conflict as a malfunction to be eliminated, this research interprets social friction as an inherent and structural condition of future societies. The theoretical framework is grounded in Ezio Manzini's principles of social innovation, where design evolves from the delivery of closed solutions to the development of enabling platforms for collaborative processes and collective action.

The research employs a qualitative speculative methodology, integrating trend analysis, future personas, stakeholder mapping, and the creation of complex visual scenarios. The primary output is a conceptual framework titled "*The Mediator / Equilibrium Engine*". This system is conceived as a systemic infrastructure designed to operate as a space for social negotiation. It does not aim for a definitive resolution of opposites; instead, it serves as a tool to render trade-offs visible and to facilitate dialogue between diverging worldviews.

The findings suggest that the intersection of speculative design and social innovation can foster the creation of new political and social agency. Ultimately, the study redefines the role of the designer and the planner as responsible mediators, capable of architecting the relational infrastructures necessary for building sustainable futures and managing the dynamic balances of divergent communities.

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Jörg Müller-Lietzkow

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Jörg Rainer Noennig

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&

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Scenario-Based Development of a Hybrid Digital Twin for Smart and Sustainable Urban Train Stations: The Case of Harburg Station

Urban rail stations face contexts that are characterized by dynamic passenger flows, congestion, and changes in operations. This research proposes a scenario-based methodology for developing a hybrid Digital Twin of Harburg Train Station by integrating artificial intelligence, real-time sensor data, and predictive modeling. Data from multi-source sensors such as 5G-connected devices, UWB tracking, and cameras are integrated with structured field observations, or “data walks,” capturing 98 different passenger archetypes. The analyses of passenger behaviors and mobility characteristics were used in simulations at macro, meso, and micro scales. We demonstrate how scenario-based Digital Twins can support real-time decision-making, optimize station operations and improve passenger experience in the context of sustainability and human-centered design. The findings provide recommendations toward expansion of hybrid Digital Twins for other urban transport hubs.

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&

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The Role of Hyporheic Corridors in Water Exchange: Implications for Surface Water Quality

The protection of water resources and the preservation of high surface water quality constitute one of the most pressing challenges of contemporary environmental research, particularly in regions exposed to increasing anthropogenic pressure. A crucial role in the natural self-purification capacity of river systems is played by the hyporheic zone, which forms an interface of intensive exchange between surface waters, groundwaters, riverbed sediments, and alluvial deposits. Biogeochemical processes operating within this zone promote both the transformation and retention of dissolved substances, while their intensity is markedly enhanced within hyporheic corridors developed along meandering reaches of lowland rivers, where hydraulic conditions favour the development of complex subsurface flow pathways. The main objective of this study was to demonstrate the existence of river water flow along hyporheic corridors within meandering sections of a small lowland river and to evaluate its significance for exchange processes between the river channel and alluvial valley-floor sediments. Particular attention was paid to the transport of conservative ions and to hydrochemical conditions conducive to the transformation of selected biogenic compounds. The analysis was based mainly on chloride concentrations measured in river water, hyporheic water, and groundwater sampled from piezometers installed within the meanders. The study was conducted in central Poland within the Moszczenica River, a small lowland river draining suburban areas of a major urban agglomeration (Łódź), using cyclic measurements performed at two-month intervals during the 2025 hydrological year. During the study period, river discharge ranged from 400 to 800 dm³ · s⁻¹. The investigated river flows through a region characterized by a transitional climate and an elevated background of geochemical salinity. Spatial variability in chloride concentrations enabled the identification of interactions between river water and groundwater and allowed for an assessment of the functioning and spatial extent of hyporheic corridors. At the scale of an individual meander, the peripheral zone of the hyporheic corridor exhibited a pronounced hydrochemical signal, with piezometers

showing elevated chloride concentrations relative to river and hyporheic waters, indicating a substantial contribution of groundwater to the chemical composition of this zone. When analysed across a sequence of meanders, this pattern became less distinct: peripheral piezometers did not consistently display elevated chloride levels, while localized concentration maxima were recorded within several in-channel profiles. The observed patterns of water exchange are partially mirrored in the distribution of selected biogenic forms, underscoring the role of the hyporheic zone not only in the transport of conservative tracers but also in the transformation of nitrogen and phosphorus compounds. These relationships correspond in part with the spatial distribution of hydraulic gradients within the meanders, indicating the predominance of downwelling zones along outer bends and upwelling zones along inner bends. The integration of hydrochemical data with the configuration of the groundwater table confirms the presence of active sub-meander hyporheic flow within the investigated river reaches.

Joanna Hadjicostandi-Anang

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Refugees' Lives Revisited: Ten Years Later

This presentation is based on using in-depth interviews in 2026 to revisit refugees' social action after ten years of leaving their home country and moving to a new environment facing the trials and tribulations of a new social and environmental reality.

The original qualitative research was conducted in Kavala and Lesbos, Greece since 2016, on multiple occasions. The issues that refugee individuals and families faced were critically examined. The individuals interviewed had provided a critical and multifaceted collection of personal narratives and the analysis of these narratives illustrated the disparities and enable us to witness the rich, dynamic and diverse historical trends of human suffering and empowerment in those regions and the similarities in their experiences, since they were all affected by a male dominated paradigm of Border-crossings. Thus, more than one levels of Border-crossings were examined in a theoretical analysis of multidimensional intersectionality, including the role of the geographic locations, in view of the changing economic and political situations not only in Greece and Europe, but also in the U.S. and the Global economy. Given the changes in the political systems in Greece, and globally, the effects of various national policies on refugee settlement and resettlement are analyzed here with regard to social action and solidarity in the new refugee social and geographic reality.

Paulette Hebert

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&

Aditya Jayadas

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Exploratory Study of Historic Temple Pilgrims in Sri Lanka

Pilgrimages to sacred shrines hold significant meaning across many religions and cultures (Di Giovine & Garcia-Fuentes, 2016; Griffin & Raj, 2017). Pilgrims and tourists, may influence historic, religious sites, i.e., through their physical presence and activities, sometimes resulting in physical alterations to these sites. Usage patterns of visitors may shift from ancient to modern times. Previous researchers have studied particular pilgrimage sites in relation to changes in their historical urban fabric over time (Maroufi & Rosina, 2017). Some of the world's most sacred temples are in thriving cities, or in areas that have evolved into urban centers, while others remain in less-developed regions. In the current study, researchers aimed to determine the demographics and motivations of visitors to the ancient Mulkirigala Cave Temple (built in 3rd century B.C.E.), a somewhat remote site, in Southern Sri Lanka. This temple is the largest cave temple in the Southern province with a unique collection of paintings and sculptures from the *Kandyana* Era (Helbig, 2019). According to the Gazette of the Democratic Socialist Republic of Sri Lanka (1988), this temple is listed as a protected monument by the Archeological Department of Sri Lanka. Widely published and recognized as a known Buddhist pilgrimage site (Godakumbura, 1969; Wijayawardena, 2012), the temple attracts both religious and cultural interest. As part of a broader exploratory study, a questionnaire was developed to query temple visitors regarding the purpose of their visit and to ascertain demographics. The study was reviewed and approved by the Institutional Review Board (IRB). In June 2024, questionnaires were administered within the temple site during a one-day study period. Ten visitors-respondents completed questionnaires which were analyzed utilizing descriptive statistics. Self-reported religious affiliations of 100% of visitor-respondents were Buddhist, 100% were Sri Lankan citizens and 100% indicated they were of Asian origin. The age range of visitors-respondents was found to be 18-76 years old with an

average age of 46.90 years (standard deviation of 18.08). Five (50%) of the visitors-respondents were female and five (50%) were male. Regarding education, one visitor-respondents (10%) reported "high-school graduate"; "six (60%) reported "some college"; one (10%) indicated "Two Year Degree"; one (10%) reported "Masters Degree"; one (10%) reported "Five Year Degree". Occupations varied and included: "priests" (2, 20%); "housewives" (2, 20%); "doctor" (1, 10%); "retired clerk" (1, 10%); "nursing officer" (1, 10%); "teacher" (1, 10%); "sales" (1, 10%); and "driver" (1, 10%). Responses regarding the purpose of their visits varied: three (30%) specifically indicated "pilgrimage"; two indicated "visit" (20%). One each indicated: "business" (10%); "educational" (10%); "official visit" (10%); "resident" (10%); or chose not to answer (10%). For almost two-thirds of the visitors-respondents (60%) this was a repeat visit. Two (20%) participants indicated this was their initial visit. In response to "How many times have you previously visited this place?", one visitor-respondent (10%) responded "over 100 times"; two (20%) indicated "resident"; one (10%) answered "twice". Majority of visitors-respondents (6, 60%) chose not to answer. Understanding current visitors-respondents' demographics and motivations can be important for urban studies and facilitate preservation of historic temple sites and future urban planning decisions.

Cem Kayatekin

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&

Ujal Gorchu

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The Persistence of the Line: Revisions of Linear Urbanism from Soria to Saudi Arabia

From the late nineteenth century to the present, the concept of the Linear City has resurfaced in urban thought as both utopian promise and critical provocation. Beginning with Arturo Soria y Mata's Ciudad Lineal (1882)—a pragmatic synthesis of mobility, hygiene, and suburban expansion—the linear model evolved into a recurring architectural speculation on infrastructure and social order. Edgar Chambless's Roadtown (1910) extended the idea into a technological fantasy of continuous habitation aligned with transit. Mid-century reimaginings by Peter Eisenman and Michael Graves (1965) reframed linear urbanism as formal and disciplinary experiment, while Superstudio's Continuous Monument (1969) and Rem Koolhaas's Exodus (1972) transformed it into ironic critique: the city as endless diagram, enclosure, or escape. The twenty-first-century revival of this vision in Saudi Arabia's The Line exposes both the enduring allure and the contradictions of linear urbanism—its conflation of efficiency, surveillance, and ecological rhetoric. This paper traces the persistence of the linear city as a conceptual figure through modernity, revealing how each iteration reinterprets the relationship between infrastructure, ideology, and the spatial imagination of progress.

Jesus J. Lara
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Negotiating Belonging: Cultural Agency and the Reinterpretation of Urban Space

Urban neighborhoods are continually reshaped by the social and cultural negotiations that occur between residents, institutions, and the built environment. This presentation examines how immigrant and minority communities assert cultural agency by transforming ordinary urban spaces into meaningful places of belonging. Moving beyond the dichotomy of top-down versus bottom-up planning, it highlights how spatial practices – ranging from informal adaptation to collective cultural initiatives – mediate the relationship between policy structures and lived experience.

Through comparative case studies of immigrant neighborhoods, the research investigates how symbolic expression, economic activity, and everyday encounters contribute to the redefinition of public space and community identity. These processes reveal the cultural dynamics that sustain resilience and continuity amid gentrification, displacement, and social fragmentation.

The study further considers how planners and designers can engage with these intercultural dynamics through participatory frameworks that foreground equity and spatial justice. Recognizing urban space as a site of negotiation rather than imposition underscores the potential for planning to become an inclusive and interpretive practice rooted in human experience.

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&

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Small Spaces, Big Potential: The Ecological and Planning Value of Shared Residential Yards

Private open spaces in urban environments hold significant potential for enhancing biodiversity and fostering human-nature interactions. Yet, despite their spatial prominence (covering between 20% and 40% of urban land according to several studies. (Loram et al., 2008; Mathieu et al., 2007) . Indeed, in the last 2 decades there has been growing scholarly attention to residential yards; however, most research still concentrates on privately owned yards in single (Goddard et al., 2010; Kevin, 2008; Lerman & Warren, 2011) family dwellings, while neglecting the ecological and planning significance of shared residential yards. These collectively owned and jointly managed open spaces differ fundamentally from private yards in terms of governance, spatial configuration, and social dynamics. Their hybrid status, neither fully private nor public, renders them critical, yet underexplored, components of urban ecological systems.

This study addresses this gap by examining the biodiversity potential of shared residential yards in Givatayim, a highly compact city where such yards occupy approximately 31% of the total municipal area. Using a typology-based approach, all residential parcels and buildings in the city were classified into six morphological types, integrating parameters of lot size, built form, and potentially vegetated area (PVA). In spring 2022, wild plant surveys were conducted across 56 randomly selected lots (9-10 from each typology), accompanied by systematic assessments of open-space size, PVA, maintenance intensity, and proximity to large urban nature areas.

Findings reveal a strong positive relationship between PVA and wild species richness, alongside a clear negative correlation between maintenance intensity and biodiversity. The typology with the highest levels of native plant diversity was a large "Block" typology (> 1500 m²) with low maintenance levels, while the lowest plant diversity was found in a tower typology characterized by highly manicured landscaping. These results illustrate how minimally maintained lots act as biodiversity

refuges within dense urban fabrics. As the tower typology represents the most recent and rapidly proliferating residential typology in Israel's metropolitan landscape, this trend raises concerns about the long-term erosion of urban biodiversity. Beyond the Givatayim case, the typological framework and analytical method are being extended to five additional cities across the Tel Aviv metropolitan area, enabling a broader metropolitan-scale evaluation of urban yard ecology. By linking morphological structure with ecological function, this research highlights shared residential yards as a vital yet overlooked layer of urban green infrastructure. The findings call for planning and management policies that reconcile aesthetic preferences with ecological functionality, promote low-maintenance regimes, and embed biodiversity criteria within urban renewal and densification strategies.

Isabel Maria Madaleno

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Cultural Landscapes and Flora in Sophia de Mello Poetry

Sophia de Mello Breyner Andresen enjoyed travelling. In 2019 her son, Miguel Sousa Tavares, also a known Portuguese writer said in an interview that for her “to travel is to observe” as announced to him in Rome (Barros, 2019). This brings us to the reason why I’ve chosen the poet as a study object in my quest for the research question: Are novels objects of investigation in landscape geography? Etymologically Geography is the description of the Earth, the planet we inhabit together with a big array of living beings like plants. Therefore, this quest is being done in several locations around Portugal and the world, usually using novels as case studies, as with Agustina Bessa-Luís (Madaleno, 2021), Almeida Garrett, and the Brazilian Jorge Amado (Madaleno, I.M., 2025).

More recently a new essay was presented at a conference, in Italy (2025), analyzing not only theatre plays but also poetry, as was the example of Luíz Vaz de Camões, from the 16th century. Following this line of research, here is the examination of three of the poetry books published by Sophia during her long life, 85 years from 1919 to 2004. They were written in three decades with about twenty years of difference between them (1947, 1967, 1989). Sophia has written about several countries, cities and countryside lending another path to the research, as she mixed Greek mythology with her wonderings around the world. So, the research question is: Can poetry books also become objects of research in Geography? This paper will argue that is the case.

Felix Merkelbach

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Examining Social Innovation in Sim-Citizens and Augmented Stewards via Artificial Intelligence Applications

This research addresses the socio-technical crisis emerging from a bifurcated reality, where mass migration into virtual environments has resulted in the severe social isolation of the remaining physical labor force. Consequently, the study aimed to develop a conceptual social innovation strategy that reconfigures solitary maintenance labor into a site of collective engagement and ethical interdependence. Utilizing speculative design methodologies and technological script analysis, the investigation mapped the behavioral impacts of artificial intelligence optimized infrastructure on human operators. The research subsequently synthesized principles of participatory design with gamification strategies to construct a new interface for resource exchange. The analysis indicated that current efficiency models systematically erode social connectivity by hiding the material cost of digital existence. The resulting design proposal, a reciprocal protocol, demonstrated that translating physical degradation into digital currency forces a necessary interaction between the two diverging populations. This mechanism successfully transformed invisible servitude into a visible, shared responsibility. Ultimately, the findings posit that long-term systemic resilience relies not on seamless automation, but on the deliberate design of obligatory collaboration, offering a scalable framework for preventing the collapse of essential material support systems.

Edyta Naworska

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RFG's Concepts of Building Rationalization and the Development of Modern Housing in Wrocław during the 1920s

After World War I, Germany faced a severe housing crisis, which became one of the key social and economic challenges of the young Weimar Republic. Under conditions of limited economic resources and growing social needs, the state authorities undertook a number of initiatives to improve living standards and rationalise residential construction. One of the most significant undertakings of this period was the establishment, in 1926, of the National Research Society for Efficiency in Building and Housing (Reichsforschungsgesellschaft für Wirtschaftlichkeit im Bau- und Wohnungswesen - RFG). This organisation, active until 1931, brought together architects, scientists, politicians, and representatives of the social housing sector. Its main objectives included conducting research on the economisation of construction processes, developing model urban and residential solutions, and supporting experimental housing estates that tested new technologies, materials, and functional layouts.

The RFG contributed to the development of several innovative housing estates, including Weissenhof in Stuttgart, Dammerstock in Karlsruhe, Törten in Dessau, and WuWA in Wrocław. Although not all of these projects received direct financial support from the Society, their designers often followed its recommendations regarding the rational use of space, optimal sunlight exposure, and healthy living conditions. The RFG's activities, carried out in close cooperation with architects associated with the Bauhaus and the Werkbund, influenced the formation of the principles of modern housing based on functionalism, simplicity of form, and economic efficiency.

The aim of this article is to examine the influence of the ideas and guidelines of the RFG on the development of residential construction in Wrocław during the Weimar Republic. The analysis focuses on the largest housing estates built during this period - Sępolno, Popowice, Grabiszyn, Tarnogaj, Szczepin, and Księża Małe - with particular attention to urban design principles, the shaping of apartment sizes and layouts, and the use of modern materials and construction technologies. The research is based on the hypothesis that the RFG's recommendations concerning the rationalisation of housing design, the functional organisation of living spaces, and the application of innovative technologies were reflected in the design of Wrocław's residential estates

from the late 1920s. The author seeks to determine to what extent these ideas were actually implemented in architectural and construction practice, and whether they contributed to shaping a local model of modern housing. The Wrocław housing developments of this period may thus be seen as examples of how modernist concepts and the RFG's postulates were translated into architectural reality, confirming the Society's significance as one of the key institutions shaping modern architectural thought in interwar Europe.

Line Nilsskog

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Cultural Homogenisation in a Fully Standardised Society: Divergent Citizens in a Speculative Scenario Analysis

Interior architectural environments shaped by long-term efficiency-oriented design practices have become increasingly standardised, prioritising symmetry, predictability, and emotional regulation. These conditions do not emerge from explicit attempts to control emotion, but from cumulative optimisation processes that normalise repetition and behavioural stability. When projected into a consolidated future context -set in the year 2072- such spatial logics narrow emotional tolerance, producing a societal condition in which the loss of affective variation and ambiguity remains largely unrecognised. This study examines the social consequences of emotional standardisation through a speculative design research methodology. A future scenario is constructed by extrapolating present-day architectural trajectories and analytically structured around two differentiated social groups: the Technologised Citizens, whose affective dispositions align with emotionally stabilised environments, and the Archive of Imperfection, whose cognitive and emotional functioning depends on sensory variation and spatial irregularity. The methodology combines scenario development, social group differentiation, and conceptual mediation modelling to analyse how identical architectural systems generate uneven conditions of compatibility and belonging. The analysis demonstrates that emotionally optimised interiors operate as affective filtering mechanisms, producing cumulative exclusion through implicit tolerance thresholds rather than explicit spatial barriers. The project contributes a conceptual framework that reframes architecture as an affective infrastructure with ethical responsibility for sustaining emotional plurality. Rather than presenting a dystopian future, the study reveals how well-intentioned architectural optimisation can incrementally erode the conditions necessary for difference, resilience, and human plurality.

Andreea Nita

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A Network-Based Framework for Unified Transport System Indicators

Transport systems are vital components of urban development, regional functionality, and economic performance. However, evaluation frameworks across road, rail, air, and public transport infrastructures remain highly heterogeneous, resulting in fragmented assessment practices and limited comparability of outcomes. This research proposes UNI-TRANS, a unified network-based framework designed to consolidate the categorization and measurement of transport system indicators through the integration of graph theory, AI semantic analysis, and multi-criteria expert validation. The methodology begins with the exploration of leading international transport sustainability and safety frameworks, mobility strategies, and infrastructure rating systems. Using AI-driven semantic processing, we extract and normalize recurring objectives, grouping them into a coherent set of macro-indicator categories: (1) network performance and connectivity, (2) infrastructure resilience, (3) environmental sustainability, (4) mobility and accessibility, (5) safety and security, and (6) socio-economic impact. Each macro-category is then modeled as a multi-layer transport network, where structural and functional relationships are quantified via connectivity, centrality, modularity, and robustness measures. This network representation supports the detection of systemic weaknesses – for example, identifying highly central components whose failure would disrupt multiple transport modes. To address subjective bias and ensure methodological reliability, indicators and their interdependencies are validated using Delphi-Fuzzy expert analysis. A case study of a European metropolitan transport system demonstrates that the integrated network approach captures complex multimodal interactions more effectively than isolated infrastructure evaluations. The results highlight how indicator misalignment between agencies can produce inconsistencies in strategic planning, and how unified metrics enable clearer prioritization of investments aligned with sustainable mobility objectives. UNI-TRANS offers policymakers and transport authorities a transparent, scalable, and data-supported decision framework capable of: harmonizing heterogeneous transport evaluation tools, improving multimodal performance comparability, strengthening resilience and sustainability policies, and supporting integrated mobility planning across governance levels. Future work will expand the model to dynamic

transport data and scenario-based simulations, enabling proactive planning in response to climate change, digitalization, and evolving mobility demands.

Giulia Pellegrini

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From Data to Meaning: Interpreting Urban Complexity in the Age of Digital Representation

The increasing reliance on data-driven approaches in urban studies has profoundly transformed how cities are analyzed, represented and governed. Digital twins, geospatial datasets, AI-based simulations and immersive visualization platforms are now widely used to model urban systems and support decision-making processes. While these tools offer unprecedented levels of precision and scalability, they also raise a fundamental question: does more data necessarily lead to better understanding of urban complexity?

This paper critically addresses this issue by focusing on the gap between data production and knowledge construction in contemporary urban representation. It argues that the current paradigm of data-driven urbanism risks overemphasizing quantitative accuracy while underestimating the role of interpretation in shaping meaningful insights about cities.

The research adopts a human-centered perspective, examining how urban knowledge emerges not simply from the accumulation of data, but from processes of selection, organization and interpretation. Through the analysis of complex and stratified urban environments, the study shows that digital representations—such as point clouds, 3D models and georeferenced datasets—often remain semantically ambiguous unless they are mediated by interpretative frameworks.

Particular attention is given to the role of visual representation as a cognitive and analytical tool. Rather than being neutral outputs, urban visualizations actively structure understanding by highlighting certain relationships, filtering information and constructing spatial narratives. In this sense, representation becomes a critical interface between data and interpretation.

The paper also discusses the growing influence of artificial intelligence in urban analysis. While AI systems can process large datasets and generate predictive models, they lack the capacity to contextualize information within social, cultural and spatial frameworks. This limitation highlights the continued importance of human interpretative practices in urban research.

The findings suggest that a shift is needed from purely data-driven approaches to more integrative, human-centered models of urban representation. Such models recognize that urban knowledge is not only

produced through measurement and computation, but also through interpretation, perception and critical reflection.

By reframing representation as an interpretative process rather than a purely technical one, the paper contributes to ongoing debates on digital urbanism and proposes a more balanced relationship between technological innovation and human understanding in the study of contemporary cities.

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&

Niloofar Khakbazan

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Sustainable Urban Assessment of Historic City Centers: YAZD City

YAZD city is located in central part of Iran and it is also recorded in UNESCO because of its traditional and vernacular architecture. Because of its location which is between sandy desert it has dry and hot climate and the most important feature of its architecture is building with earth. The traditional architecture of this city is particularly interesting and blends beautifully into the surrounding landscape. It stems from a millennia-old tradition that has skillfully utilized the local resources in the most appropriate manner for the climate. The preservation of this place is now threatened by several factors: on the one hand, climate change, and on the other, the changing mentality of people who often fail to appreciate the value of these buildings and prefer to live in modest homes built with current technologies. The study presented here seeks an answer to these questions with a multi-level project featuring interconnected strategies.

Piotr Razniak

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The Importance of Command-and-Control Functions in Cities in the World Scale

The existing literature contains numerous studies of large cities in terms of their global functions, such as command and control, world city, and global city functions. However, there are currently no studies of cities that would provide a more comprehensive picture of their international impact and the importance of the command and control function for global and world cities. Therefore, an attempt was made to fill this research gap. The aim of this study is to demonstrate the interdependencies between the command and control, world, and global functions of cities.

Taking into account the share of command and control, world, and global functions, four types of cities were distinguished. These types take into account the dominance of one function or the balance of all three. Cities were divided into types based on the dominance of one function or its absence:

Type 1. Dominance of the command and control function, Type 2. Dominance of the global function (global city), Type 3. Dominance of the world function, Type 4. Cities with the most balanced functions: Harbin, Stockholm, Houston, Rio de Janeiro, Dublin, Kolkata, Abu Dhabi.

Based on research, it can be concluded that cities with the highest control and management functions, such as Beijing, New York, London, Tokyo, and Paris, do not belong to any type. Failure to qualify as a type 1-4 does not necessarily disqualify a city. Despite its dominance in the global economy in terms of control and management functions, other functions with international reach are quite well-developed. Cities dominated by one of these functions (types 1, 2, and 3) may be internationally known for that function, which can generate a degree of recognition important from a marketing perspective. On the other hand, if a dominant function in a given city experiences a crisis, the decline in its importance can be significant. In such a case, it would be more advantageous to be classified as a type 4 city, where no function clearly dominates the others. Perhaps in this situation, the city's recognition is not exceptional, but if one function declines, the remaining functions will maintain the city's relatively unchanged global position.

Pascal Ricordel

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Crowdsourcing and Proximity Mapping in the Evaluation of Urban Transformation Plans

Recent work introducing spatial analysis to evaluate the quality of urban regeneration plans presents methodological difficulties in terms of segmentation and changes in scale resulting from disaggregation: weak theoretical references and increased endogeneity. The analysis of proximity interference highlights the problem of identifying dependency structures: rigid spatial weight matrices, expert bias. Regenerative artificial intelligence (AI) tools are a disruptive innovation that can push back these methodological limits in the analysis of a “good urban plan.”

Through their ability to map and indicator networks, take into account changes in scale and spatial heterogeneity, and finally reveal associated proximity dependency structures or even reconstruct data through text mining and machine learning, without expert bias, AI tools offer disruptive methodological opportunities. However, AI tools have limitations in terms of their usability for researchers, presenting numerous biases related to the conditions for effective collective intelligence, sample biases, algorithm biases, etc.

The paper analyzes the opportunities and limitations of integrating crowdsourcing, defined as the use of collective intelligence (CI) resources, which forms the basis of AI tools in assessing the quality of urban transformation plans. It illustrates the methodological developments currently underway through an example of application to cities associated with maritime territories.

Nicolas Rodriguez Terrazas
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A Multi-Scale Framework for Circular Design across Material, Urban, and Social Systems

This paper presents the pedagogical and research methodology developed for the module Circular Economy Applied to Design (MA 72_2) within the Master's in Innovative Design at Marbella Design Academy. The study explores a "Speculative Circularity" method, which utilizes research-through-design to bridge the gap between material innovation and systemic socio-economic change. The methodology operates across three nested scales: the material (micro), the urban (meso), and the social/economic (macro).

The Material Scale: Students utilize AI-assisted speculation to evolve the physical and chemical properties of both biodegradable and technical materials. By tracing historical trajectories and projecting future composites, the material is treated as the foundational "DNA" of a speculative society.

The Urban Scale: The research reinterprets the city as a complex urban metabolism. Through consumption pathway mapping, students identify strategic points of integration where their speculative materials can optimize resource flows, transforming the built environment into a responsive interface.

The Social & Economic Scale: Moving beyond simple recycling, the method applies circular principles (biological vs. technical cycles) to design regenerative social models. This phase focuses on stakeholder viability and the social impact of repair, reuse, and remanufacturing, ensuring that the proposed economy serves the community's specific consumption dynamics.

The final output is a 4,000-word case study that synthesizes practical experimentation with theoretical reflection. By integrating AI-driven forecasting and speculative scenarios, the module fosters a critical paradigm shift: viewing the circular economy not merely as a waste-management tool, but as a visionary driver for urban renovation and social equity.

Michela Scaglione

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Beyond Representation: Regimes of Visibility and Cognitive Conditions for the Acceptance of Environmental Infrastructures in Urban Design

Contemporary urban planning is increasingly confronted with conflicts related to the integration of environmental infrastructure in urban and peri-urban contexts. Despite the technical efficiency of these systems, their implementation is often hindered by dynamics of social rejection, attributable not only to functional factors but also to perceptual and representational modalities that condition their acceptance.

Within this framework, the paper proposes a theoretical and methodological advancement of previous research focused on the relationship between perception, representation, and waste-management infrastructures, shifting attention from visibility as an objective to visibility as an operational condition of planning. The central question, therefore, becomes: under what conditions does representation contribute to making infrastructures environmentally and socially negotiable?

To address this question, the research introduces the concept of a regime of visibility, defining representation as an active configuration that structures the relationship among infrastructure, urban space, and the observer. From this perspective, visibility is not a neutral datum, but a device that affects the construction of meaning and the possibility of integrating infrastructures into the urban landscape.

The paper proposes a model articulated through perceptual thresholds – recognizability, nameability, discussability, and negotiability – through which an infrastructure may shift from a removed or stigmatised element to an integrated component within urban processes. This model is conceived as a theoretical tool for interpreting acceptance dynamics within planning processes.

At the methodological level, the research develops an operational protocol integrating visual analysis and eye-tracking techniques to investigate the relationship between image structure and cognitive processes. A typology of environmental representations is defined (global cumulative, local comparative, stratified, and operational), and these configurations are related to specific cognitive effects and different levels of perceived agency.

Through the identification of Areas of Interest (AOIs) and the analysis of observation patterns (time to first fixation, fixation duration,

and transitions), four synthetic indicators are developed – perceived operability, institutional trust, visual stigmatisation, and landscape compensation – enabling a systematic description of the role of representation in meaning-making processes. The objective is not to demonstrate a direct causal relationship between images and behaviour, but rather to provide an interpretive and operational model capable of supporting urban planning practices. In this sense, representation is redefined as an interface between data, perception, and design, contributing to the development of more effective strategies for integrating environmental infrastructures into contemporary urban contexts.

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Traces of Socio-Spatial Transformation in Istanbul from the Republican Era to the Present: A Historical and Cultural Analysis through Bakırköy Case Studies

This paper examines the socio-spatial transformations experienced by the Bakırköy district, located on the western side of Istanbul, through a set of selected case studies. The study aims to reveal how different historical periods – from the Ottoman era to the Republican period, from liberal economic policies to neoliberalism and globalization – have shaped the district’s spatial configuration. Historically, Bakırköy has maintained an uninterrupted spatial presence from the Byzantine era to the present day. Situated at the intersection of Istanbul’s industrial, residential, transportation, and cultural spheres, the district constitutes a unique case for tracing urban transformation.

The research is structured around five selected sites within Bakırköy: (1) the transformation of İskender Çelebi Farm during the Ottoman period into the planned modern residential district of Ataköy in the Republican era, illustrating the role of state-led housing policies in shaping urban morphology; (2) the conversion of the Basmahane (Sümerbank) Textile Factory site into the luxury housing project Pruva 34, symbolizing the shift from production-based to consumption-oriented urban functions; (3) the redevelopment of the Seed Oil Extraction Factory area into the Carousel Shopping Mall, highlighting how neoliberal policies since the 1980s prioritized commercial spaces; (4) the replacement of the 19th-century sea baths, once a vital public space, by privately owned luxury projects along the coastline in the 2000s, illustrating the privatization of public space; and (5) the transformation of Atatürk Airport, a 20th-century emblem of international air transport, into a large-scale “Nation’s Garden” (Millet Bahçesi) in the 2020s, reflecting the impact of global functional shifts on local urban fabric.

Methodologically, the study combines historical maps, demographic data, planning decisions, and legal frameworks to evaluate functional transformations in both spatial and social contexts. Historical maps visualize how the district’s boundaries and land-use patterns have been reshaped across different periods; demographic data reveal the impacts of population mobility, migration waves, and social differentiation on urban space; planning decisions trace the strategic interventions of local and central authorities in reshaping urban morphology; and legal frameworks clarify the institutional settings that enabled these

transformations. This approach not only documents functional changes in physical space but also examines their implications for social identity, belonging, and collective memory. In particular, the case studies demonstrate how the transformation from industrial facilities to housing and commercial complexes, and from public to privatized spaces, has reshaped everyday practices, spatial attachments, and urban memory. This comprehensive methodology allows socio-spatial transformations to be understood not only through quantitative indicators but also within their cultural, social, and historical contexts.

The findings point to three major turning points in Bakırköy's urban development. First, state-led industrialization and planned housing production during the Republican period, supported by early transportation investments such as the railway and coastal road, established a modern urban district. Second, neoliberal policies after the 1980s deepened spatial segregation as industrial functions moved outward and were replaced by service and commercial sectors; this process was reinforced by the accessibility provided by the E-5 highway and its connecting axes, positioning Bakırköy as a new hub for residential and commercial projects. Third, globalization and large-scale urban transformation projects after 2000, combined with new transportation investments such as Marmaray and the Metrobus line, triggered interventions that reshaped social memory across the district – from the coastal strip to the former airport site.

In conclusion, the analysis of Bakırköy's historical case studies demonstrates that urban transformation in Turkey must be interpreted not only through economic and demographic parameters but also through cultural and social dimensions of belonging. By focusing on the privatization of public space, the conversion of industrial heritage into residential and commercial developments, and the historical trajectory of planned housing production, the study provides critical insights for urban planning and policy-making. The Bakırköy case serves as a vital laboratory for understanding the interplay between past and present in shaping Istanbul's socio-spatial transformation.

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Annual Analysis of Shoreline Variation in the Municipalities of Ilhéus, Una, and Uruçuca (Costa do Cacau), Bahia, Brazil

The purpose of this study is to estimate the sediment budget of the shoreline (SL) in the municipalities of Ilhéus, Una, and Uruçuca, located along the Cocoa Coast, Bahia, Brazil, between 2018 and 2024. The analysis aims to identify annual trends of erosion and accretion, as well as the beaches most susceptible to these processes. The SL is an extremely dynamic feature, and engineering works, such as the construction of ports, can significantly alter its natural morphodynamics. The adopted methodology involved the analysis of the mean high-water line along approximately 90 km of coastline, using monthly PlanetScope satellite images (Dove and SuperDove) with 3-meter resolution, as a viable alternative for large-scale monitoring. Annual variations in the SL were estimated using the Digital Shoreline Analysis System (DSAS), applying the statistical metrics Net Shoreline Movement (NSM), End Point Rate (EPR), and Linear Regression Rate (LRR). Almost all analyzed years (2019 to 2024) exhibited average erosion rates based on the LRR, indicating a general trend of shoreline retreat. The year 2020 was the most critical, showing the greatest negative sediment budget (NSM of -12.41 m and EPR of -13.67 ± 0.91 m/year). The results highlight the increasing vulnerability of beaches to erosion, supporting the emergency decrees issued by the Ilhéus city government. The findings provide relevant input for coastal management, urban planning, and public policy aimed at risk mitigation. This research stands out for its application of satellite imagery in sediment monitoring, contributing to the identification of the most vulnerable beaches and guiding targeted monitoring efforts.

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**Urban Aridities:
New Adaptation Strategies for Consolidated European Cities**

Rising temperatures, heatwaves and prolonged droughts are increasingly exacerbating the fragilities of urban environments, especially when they emerge in consolidated contexts that are not historically related to dryness, disrupting the premises through which they have been imagined and inhabited and challenging the adaptability of their inherited spatial devices. Morphological, environmental and historic conditions translate in highly differentiated urban structures, which influence risks and performances, and potentials for improvements and interventions. In urban constrained conditions, the fast-approaching changes dictated by a global climatic instability often encounter limited availability of land for blue-green infrastructure and the impracticality of great urbanistic transformations. That's the case of many European cities, dense and rigidly structured in both vegetal and mineral spaces, solid in their relations with water and often tied to ideals of lushness and permanence, now unsettled by shifts that cause more than immediately measurable impacts.

To host and guide inexorable changes where extreme and traumatic interventions are not realistic, especially in the short-medium term, the paper proposes the possibility for a different adaptive trajectory, where aridity becomes a structural component of ecologies, aesthetics and behaviours, shaping intermittent and adaptive landscapes that integrate the existing palimpsest of practices, relations, memories, and attachments. Something more challenging on a cultural level than in terms of just technical feasibility.

Through a critical global survey of contemporary practices that approach aridity as a design and cultural parameter in urban landscapes, rather than addressing it with compensatory or infrastructural solutions, this contribution offers a comparative framework of both explicitly articulated practices and implicit accommodation of aridity through devices, materials and everyday uses, in order to investigate the relevance, and the implications, of these strategies inside the constraints of European compact cities. Without overlooking potential catastrophic outcomes, or building a generalized model, landscape architecture can overturn the conventional image of care and produce outcomes that may appear dissonant, hybrid, or unresolved, but which offer a more resilient adaptation pathway. This requires a profound shift from imaginaries still

massively influenced by turf-and-tree models, that associate comfort, security and even spiritual meanings with lushness and stability, and misread anything different as neglect or deprivation. But engaging with irreversible changes as structural parameters of design, experimenting with scarcity and intermittence, can be the key to interpret and support emerging environmental regimes, cultural expectations and low maintenance practices, allowing us to inhabit change itself.

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Unwanted Heritage - The Wrocław Housing Estates of the Schlesische Heimstätte Company from the Period 1933-1940

Following the change of government in Germany, all architectural work was controlled by the Reich Ministry of Propaganda under the law of September 22, 1933. The Reich Chamber of Fine Arts (Reichskammer der bildenden Künste) was established for architects, under the control of the NSDAP. Membership in this section was a requirement for architects to obtain a work permit.

After 1933, from 1933 to 1936, during the early years of the Third Reich, the new political climate promoted the concept of small housing estates and their own homes (Kleinsiedlungs- und Heimstättengedanke) within the fringe settlements (Stadtrandsiedlungen), thus repeating the crisis solutions of the early Weimar Republic. Tying urban workers to the land and providing them with food from their own plots of land was intended to alleviate the impact of the economic crisis. The idea of small settlements was ideologically motivated. As early as 1931, they were intended for the unemployed and workers working part-time. From 1934, the housing offer was primarily used by full-time workers with four or more children. The estates consisted of monotonous rows of identical detached houses on utility plots, aligned east-west or north-south.

From 1936 to 1940, so-called "people's apartments" (Volkswohnungen) were built for workers in factories implementing the Four-Year Plan and for members of the Wehrmacht, in the form of estates reminiscent of garden cities. Streets were designed with soft, smooth lines. These were affordable apartments with minimal floor space and amenities. The Act on the New Formation of German Cities (Gesetz zur Neugestaltung deutscher Städte) of October 4, 1937, was a new legal act concerning the formation of the 41 cities of the Reich listed in the Führer's decree and all the capitals of the individual regions. Wrocław was also included on this list. Redevelopment plans concerned not only the city center but also housing estates located on the outskirts of the city, catering to families living in the city center.

At that time, the following housing estates were built in Wrocław: Maślice Małe (Klein Masselwitz, 1937), Żerniki "Nad Ługowiną"

(Neukirch "Am Flossgraben", 1932 - 1934), Pilczyce (Pilsnitz, 1935 - 1937), Stabłowice (Stabelwitz, 1935 - 1938), Małe Stabłowice (Kleinsiedlung Stabelwitz, 1934 - 1937), Stabłowice "Waldwinkel" (Stabelwitz "Waldwinkel", 1934 - 1937), Żerniki (Neukirch, 1931 - 1934), buildings at Jana Stanisławskiego Street 19 - 36 (former Aschenbrödelweg, 1937 - 1938), buildings at Kielecka Street 12 - 28 (formerly Liebauer Straße, 1933-1936).

These estates and houses complexes still exist today and are inhabited, and what's more, they enjoy the residents' sympathy. Unfortunately, the houses are in poor technical condition. The question arises: how can we save this unwanted legacy of the Nazi era?

An important goal of this research is to prepare a study consistent with the long-term strategy of the European Union. Particular attention has been paid to historic buildings and historic urban complexes. This exceptional political and social interest stems from an awareness of the significant role of heritage in shaping the identity of Europeans, countries, and regions. This is reflected in the Davos Declaration, "Towards a high-quality Baukultur for Europe," signed in 2018.

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Many Voices, Different Pathways: Pluralist Urban Mobilities Across Theory and Practice

As cities seek to transition toward more equitable and sustainable mobility systems, pluralist approaches that foreground *participation* and *inclusion* have emerged as essential for addressing the political, institutional, and social barriers embedded in urban transport decision-making. Rather than treating mobility as a set of technical fixes, pluralist urban mobilities scholarship emphasizes that mobility systems are socially constructed; they reflect and reproduce power relations, norms, and exclusions that shape who moves, how, and with what opportunities. Under this lens, inclusive and participatory urban mobility is understood not simply as adding stakeholders to a process, but as reconfiguring institutional practices, redistributing voices, and shaping outcomes that respond to diverse lived experiences across social groups, spatial contexts, and institutional hierarchies.

This study develops a conceptual framework that links *pluralist urban mobilities* with *participatory governance mechanisms* and uses it to comparatively examine two urban mobility interventions in Maltepe, Istanbul: the ACCTRA street experiment and the TOPUK (Women Accessing Public Transport) project. Both cases employ participatory methods and seek to advance more inclusive mobility outcomes, yet they foreground different forms of inclusion, engage distinct stakeholder constellations, and navigate structural constraints in unique ways. The framework draws on (i) multi-stakeholder engagement theory, which emphasizes deliberation, power sharing, and co-production in planning; (ii) mobility justice literature, which centers equity and recognition of diverse mobility needs; and (iii) institutional learning theory, which highlights how organizational practices evolve through experimentation and reflexivity.

More specifically, supported by JPI Urban Europe's ERANET Cofund, the ACCTRA project approaches pluralist urban mobilities through a multi-stakeholder governance framework that combines negotiated participation with experimental planning practices. Conceptually, ACCTRA undertakes inclusion as the coordination of diverse actor rationalities and institutional mandates; methodologically, this is operationalized through stakeholder mapping and participatory workshops embedded in the planning, design, and evaluation of street experiments. These methods enable the articulation, negotiation, and

partial alignment of competing mobility claims, while simultaneously supporting institutional learning within formal decision-making structures. By contrast, the TOPUK project, supported by the EU-funded KAVSAK Network, grounds pluralism in gendered and intersectional mobility justice perspectives. Here, participation is both a theoretical commitment to recognizing marginalized mobility experiences and a methodological strategy implemented through participatory street experiments, design workshops, and community-based engagements. These practices center women and other vulnerable groups—such as children, older adults, and persons with disabilities—in defining mobility problems and co-producing spatial interventions.

Comparative analysis reveals both convergences and divergences in how pluralist mobilities are enacted. While both projects leverage participatory tools to redistribute voice and knowledge, ACCTRA emphasizes *structured multi-stakeholder negotiation* and institutional integration, whereas TOPUK emphasizes *experiential inclusion of marginalized mobility users* and transformative design practices. Together, these cases illustrate that pluralist urban mobilities are not a singular method but a spectrum of engagement logics that reshapes planning practices, redistributes power, and expands the possibilities for more inclusive, context-responsive mobility transformations. By clarifying how different participatory rationales align with specific institutional settings and policy objectives, the study offers actionable insights for public authorities and practitioners seeking to design, evaluate, and scale inclusive urban mobility policies.

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