

La Biennale di Venezia
19th International Architecture Exhibition
Intelligens. Natural. Artificial. Collective.
curated by Carlo Ratti



Ten Thematic Pathways through Biennale Architettura 2025

Note: While the thematic lists below are not exhaustive, their goal is to encourage multiple explorations of the Exhibition to discover possible resonance among the multiple actors that compose Biennale Architettura 2025. These **thematic pathways** also suggest connections between the 19th. International Architecture Exhibition and the National Participations and Collateral Events.

1. Tree Tech: Architectures Learning from Nature

These projects embrace trees, forests, and plants as central actors in the design of cities and buildings. Whether as climate regulators, spatial frameworks, or cultural symbols, vegetal systems are treated as architecture and infrastructure. Strategies range from reforestation and urban greening to poetic and material uses of plant intelligence—proposing a shift toward multispecies urbanism and the rewilding of human-made environments.

Selected participants:

1. Architecture as Trees, Trees as Architecture (OLA Office for Living Architecture, Green Technologies in Landscape Architecture, Technical University of Munich)
2. Cool Forest (Kate Orff, SCAPE Landscape Architecture; Marco Scano, Harvard GSD Department of Landscape Architecture)
3. Revival of Ordinary Trees (Dong Gong, Vector Architects)
4. Re-Leaf (Senseable City Lab MIT: Martina Mazzarello, Fabio Duarte, Pietro Pagliaro, Umberto Fugiglando Diego Morra; Jae Joong Lee; Computer Science and Artificial Intelligence Lab: Sara Beery)
5. Domino 3.0: Generated Living Structure (Kengo Kuma, SEKISUI HOUSE – KUMA LAB, The University of Tokyo; Yutaka Matsuo, Matsuo – Iwasawa Lab, The University of Tokyo; Norihiro Ejiri, Ejiri Structural Engineers; Minoru Yokoo, Kengo Kuma & Associates)
6. Soft Infrastructure (Jaakko Heikkilä, Emil Lyytikä) Biennale College Architettura
7. Arbor.Pilae (Maria Kuptsova)

Selected National participations and Collateral Events:

8. Building Biospheres (Belgium Pavilion)
9. ARCHI/TREE/TECTURE (Lithuania Pavilion)
10. Rooted Transience (Diriyah Biennale Foundation, Collateral Event)

2. Alliances for the Chthulucene: Building Beyond Humans

Reframing architecture as a shared space among humans, animals, plants, and ecosystems, these projects dissolve the anthropocentric lens of design. They propose architectures that respect and host other forms of life, from elephants to trees to crickets, forging new ethical and spatial relations. Kinship becomes a strategy for coexistence and resilience.

Selected participants:

1. Talking to Elephants (Marc Sherratt Sustainability Architects, Franco Schoeman, Rory Hensman Conservation and Research Unit (RHCRU), Refraime AI)
2. Song of the Cricket (University of Melbourne with: Alexander J. Felson, Filippo Maria Buzzetti, Miriama Young, Will Carter, Alice Kesminas, Jagannath Aryal, Michael Kearney, Ary Hoffmann, Enzo Moretto, Esapolis Grande Museo Vivente degli Insetti)
3. Elephant Chapel (Boonserm Premthada)
4. The Other Side of the Hill (Beatriz Colomina, Roberto Kolter, Patricia Urquiola, Geoffrey West, Mark Wigley, Scott Chimileski, Desirée Moffitt, Joshua Rosenstock, Hunter Wolff, Kou Yamamoto)
5. The Living Orders of Venice (Studio Gang)
6. Sea Oasis: Survival Architecture (Dotdotdot)
7. Stonecrust: The Microplanetary Infrastructure of Lithoecosystems (Andrés Jaque / Office of Political Innovation, Gokce Ustunisik)

Selected National participations and Collateral Events:

8. Home (Australia Pavilion)
9. In-between (Japan Pavilion)
10. Emerging Assemblages: Navigating Shifting Ecologies (Kosovo Pavilion)

3. Radical Shelters: Architectures of Hope in a Harsh Environment

This cluster focuses on how architecture can serve as a form of protection and refuge amid climate volatility, social unrest, and systemic instability. Projects range from lightweight emergency shelters and amphibious dwellings to cultural repairs and climate-resistant structures. They frame architecture not as permanence, but as strategic adaptation—offering shelter, continuity, and care in a turbulent world.

Selected participants:

1. Hope on Water (SO? Architecture and Ideas: Sevince Bayrak, Oral Göktaş; Technical Collaborators: Metal Yapı, Fibrobeton; Consultants: Ayfer Bartu Candan, Selami Gürel, Muhammed Maraşlı)
2. Deserta Ecofolie (Pedro Ignacio Alonso, Pamela Prado; Eco-technical section drawing by Francisco Salas)
3. Alternative Skies (Wesam Al Asali, Sigrid Adriaenssens, Romina Canna, Robin Oval; Collaborators: IWLab, D-Lab, IE School of Architecture and Design; Technical Collaborators: Salvador Gomis Aviñó, Carlos Fontales Ortíz)
4. Spacesuits.us (Emily Ezquerro, Jerónimo Ezquerro, Charles Kim, Stephanie Rae Lloyd, Emma Sheffer, Sam Sheffer)
5. Vessels for Liminal Dialogues, (Fundación Organismo, Alice Grandoit-Sutka)

6. Carosello (John Lin, Christopher Roth, Lidia Rățoi, Davide Spina, Kaiho Yu)
7. Local Resource / Collective Knowledge (3XN, GXN, CITA – Centre for Information Technology and Architecture)

Selected National participations and Collateral Events:

8. STRESSTEST (Germany Pavilion)
9. Living With (French Pavilion)
10. (Fr)Agile Systems (Pakistan Pavilion)

4. Architecture Beyond Architects: Networks for Participatory Design

This cluster focuses on democratizing architectural practice. It includes works that engage communities directly, activate public spaces, and challenge institutional gatekeeping in architecture. From protest infrastructures to cooperative housing initiatives, to mapping informal architecture, these projects expand the authorship of space and invite new actors into the architectural conversation.

Selected participants:

1. Voice of Commons (Giulia Foscari, UNA / UNLESS; Ambassadors: Johan Rockström, The Potsdam Institute for Climate Impact Research; Sylvia Earle, Mission Blue & The Sylvia Earle Alliance; Xiye Bastida, Fridays For Future; Technical Collaborators: Falegnameria Capovilla, European Space Agency, Cassina, Artemide, Studio Vedèt)
2. Speakers' Corner (Christopher Hawthorne, Johnston Marklee, Florencia Rodriguez; Supported by the Lincoln Institute of Land Policy)
3. Bursting Bubbles (VOLUME, With the support of Creative Industries Fund NL Archis, Nieuwe Instituut Foundation for Architecture)
4. Data Clouds (Martina Mazzarello, JOURNEY, Gareth Doherty, Fabio Duarte, Washington Fajardo, Umberto Fugiglando, Diego Morra)
5. Protest Architecture From German Climate Protests In Hambach Forest (Oliver Elser, Deutsches Architekturmuseum (DAM), Forest Collective from Hambach Forest Something Fantastic, MAK – Museum of Applied Arts)
6. HouseEurope! (s+ (station.plus, D-ARCH, ETH Zurich), b+ Prototypen, CCA – Canadian Centre for Architecture)
7. Alternative Urbanism: The Self-Organized Markets of Lagos (Tosin Oshinowo, Oshinowo Studio)
8. The Kitintale Collective (Priscilla Namwanje)

Selected National participations and Collateral Events:

9. Agency for Better Living (Austria Pavilion)
10. Deep Surfaces (UNESCO, Collateral Event)

5. Robotic Constructs: New Human-Machine Alliances

Architecture meets automation in this group of projects that explore how robotics, sensors, and data systems can reshape urban design. From AI-driven design tools to cybernetic feedback loops, these works suggest a future where buildings and cities become adaptive, self-organizing systems.

The projects raise important questions about authorship, control, and the ethical use of emerging technologies.

Selected participants:

1. Machine Mosaic (Daniela Rus)
2. A Robot's Dream (Gramazio Kohler Research, ETH Zurich, MESH, Studio Armin Linke)
3. Co-Poiesis (Philip F. Yuan, Bin He; Tongji University, Hangzhou Unitree Science and Technology, Shanghai Fab-Union Technology, Shanghai Research Institute for Intelligent Autonomous Systems)
4. Ancient Future: Bridging Bhutan's Tradition and Innovation (Bjarke Ingels Group, Laurian Ghinitoiu, Arata Mori)
5. A Real-Time Twin in Venice (Zhang Li, Urban Ergonomics Lab, School of Architecture, Tsinghua University, Xie Qixu, Deng Huishu, Wang Ziheng, Pang Lingbo, Chen Yuhong, Mei Xiaohan, Ye Yang)
6. Recycling Intelligences (Lluís Ortega, Enrique Romero, Julia Capomaggi, Nil Brullet; Angel García, Roger Adam, Jordi Moya, Andrés Flajszer; Technical Collaborators: Xavier Prat, Cristina Valle, Miquel Oller)
7. Am I A Strange Loop? (Takashi Ikegami, Luc Steels)
8. Building as collective prototyping (Vicente Gualart, Daniel Ibañez)

Selected National participations and Collateral Events:

9. Pseudonature (Bulgaria Pavilion)
10. Reflective Intelligences (Chile Pavilion)

6. Networked Cities: AI, New Energy & Digital Tech

This cluster focuses on the convergence of digital technologies and energy systems to create smart, responsive urban environments. Projects explore how interconnected networks of sensors, data, artificial intelligence, and energy can transform cities into adaptive, efficient spaces. By integrating intelligent infrastructure and real-time feedback loops, these works help shape cities that are more responsive to the needs of their inhabitants and the environment.

Selected participants:

1. Housing Stock: Automated Layouts (Ramon Elias Weber, Yuhang Zhang, Leah Mary Altman, Frederic Lam, Linc Ruiz-Truong, Sihyeok Yang, Mia Wilson, Emma Nakaoka, Noël Fäh)
2. Data Centres and the City (Grimshaw Architects, Arup Australia)
3. Reservoirs of Venice (Dietmar Offenhuber, Orkan Telhan, Lingwei Kong, Joel Murphy, Northeastern University Team)
4. Atlas of Popular Transport (Civic Data Design Lab, MIT, Norman B. Leventhal Center for Advanced Urbanism, MIT)
5. The Curse of Dimensionality (Laura Kurgan, Adeline Chum, Michael Krisch, Adam Vosburgh, Jia Zhang)
6. Machine View of the City (Certain Measures)
7. Doxiadis' Informational Modernism (Farzin Lotfi-Jam, Mark Wasiuta)

Selected National participations and Collateral Events:

8. Microarchitecture through AI (Armenia Pavilion)
9. The Next Earth (Palazzo Diedo, Collateral Event)

7. Staying Cool: Negotiations of Sun and Shade

Focusing on thermal comfort and energy futures, this group spans solar technologies, traditional cooling practices, and experimental energy systems. Projects address rising global temperatures, proposing both high- and low-tech strategies to cool cities and structures. Together, they advocate for a broader climate-responsive design ethic and promote energy literacy in the built environment.

Selected participants:

1. Terms and Conditions (Transsolar, Bilge Kobas, Daniel A. Barber, Sonia Seneviratne)
2. After the End (Liam Young, Natasha Wanganeen, Alexey Marfin, Andrew Hu, Luis Garcia Grech, Orin Torati, Neasden Control Center, Sam Osborne, Annie Forster, Iwiri Choir, and more)
3. Climate Realignment: Tactical Adaptations to Urban Heat (Roofscapes Studio)
4. Solar Cooker (GRACE-Uzbekistan)
5. Manameh Pavilion (Rashid Bin Shabib, Ahmed Bin Shabib, Amna Abulhoul, Vladimir Yavachev, Yusaku Imamura, Jonathan Shannon)
6. In the Fold of Shadows: Prosthetic Dialogues (Mahwish Khalil, Laura-India Garinois)
7. The Ecological Semiotics of Heat and Pollution in Athens (Jon Goodbun, Aran Chadwick, Flora McLean, Rosa Schiano-Phan, Juan Vallejo)
8. 14°C (Imma Sierra, Clémence Althabegoïty)

Selected National participations and Collateral Events:

9. Heatwave (Bahrain Pavilion)
10. Pressure Cooker (UAE Pavilion)

8. Circular Matters: High & Low Tech Materials for Repair & Reuse

Architecture must move from a model of extraction and waste to one of reuse and regeneration. These projects, both low-tech and high-tech, reimagine building materials, construction processes, and domestic systems through circular principles. Using waste, low-carbon, and bio-based resources, they demonstrate how a circular mindset can be both ecologically responsible and culturally inventive.

Selected participants:

1. Material Bank: Matters Make Sense (Stefano Capolongo, Ingrid Maria Paoletti, Margherita Palli Rota, Konstantin Novosëlov)
2. Circularity Handbook (PILLS, Jin Arts, Typo_d, Archi-Neering-Design/AND Office, Róng Design Library, Valeria Tatano, Massimiliano Condotta, Xiaoqing Cui, Zhengwei Tang, HDA Shenzhen Handu Lighting Design Consultant Co., Trojan Art Services Co., We Exhibit)
3. Circularity on the Edge (Kateryna Lopatiuk, Herman Mitish, Yana Buchatska, Orest Yaremchuk, Oleksandr Sirous, Roman Puchko; Authorial Collaborators: Roman Sakh, Kostiantyn Kuchabskyi, Anastasia Lopatiuk, Svitlana Usychenko, Ivanna Lipych, Esper Bionics)

4. Metabolic Home (Lydia Kallipoliti, Areti Markopoulou, Post-Spectacular Office, Stergios Galikas, Veria, Greece, Elli Christaki, Evelina Garantzioti; Technical Collaborators: VETA SA, Theodoros Rantos, Vasilis Bilis, Despoina Linardou, Theocharis Michailidis, Andrea Tivadar, Bigoli Studios)
5. Earthen Rituals (Lola Ben-Alon, Natural Materials Lab, Columbia University GSAPP; Technical Collaborators: WASP, Penmai Chongtouna, Keenan Bellisari, Christopher Tillinghast Sherman, Trella Isabel Lopez, Kelechi Iheanacho, Neil Potnis, Sherry Aine Chuang Te, Nikoletta Zakynthinou Xanthi)
6. VAMO (Circular Engineering for Architecture, ETH Zurich, Digital Structures Group, MIT Morningside Academy for Design, Anku)
7. Necto (SO-IL, Mariana Popescu, TheGreenEyl, Riley Watts)

Selected National participations and Collateral Events:

8. Build of Site (Denmark Pavilion)
9. Let me warm you (Estonia Pavilion)
10. Lavaforming (Iceland Pavilion)

9. Taking on Water: Designing for Too Much & Too Little

This cluster explores the multifaceted role of water in shaping urban life, climate resilience, and territorial identity—through the lens of Venice and beyond. Projects investigate both infrastructural and cultural dimensions of aquatic space, proposing new forms of coexistence with rising seas, tidal dynamics, and marine ecologies. Through speculative imaginaries, heritage reframing, and ecological restoration, they advance water-sensitive urban design and political ecologies of the sea.

Selected participants:

1. Canal Café (Diller Scofidio + Renfro; Natural Systems Utilities; SODAI; Aaron Betsky; Davide Oldani)
2. Gateways to Venice's Waterways (Norman Foster Foundation; Michael Mauer, Porsche; Miguel Kreisler, BAU + Empty; Ragnar Schulte, Porsche; Christopher Hornzee-Jones, Aerotrope)
3. AquaPraça (CRA-Carlo Ratti Associati, Eric Höweler and J. Meejin Yoon, Höweler + Yoon)
4. Proxy Ocean (Florian Kilian Jaritz, Franziska Gödicke) Biennale College Architettura
5. Venice Forever: From Reality to Imagination (Cibic Workshop, Andrea Rinaldo)
6. Oceanic Refractions (AM Kanngieser, Mere Nailatikau, Laisiasa Dave Lavaki, Tumeli Tuqota, Joseph Kamaru, Elise Misao Hunchuck)

Selected National participations and Collateral Events:

7. 53.86% (Uruguay Pavilion)
8. TERRÆ AQUÆ (Italy Pavilion)
9. Chinampa Veneta (Mexico Pavilion)
10. Catalonia in Venice_Water Parliaments: Projective Ecosocial Architectures (Institut Ramon Llull, Collateral Event)

10. Out of this World: Design in Speculative Spaces

This cluster gathers projects that engage with science and speculative design to reimagine architecture's future roles. They propose radical visions inspired from outside our planet — whether through space habitats, atmospheric imaginaries, or reconfigured ecologies. These works use designs not as escapism but as a tool for probing emerging realities and ethical questions in an age of transformation.

Selected participants:

1. Oxyville (Jean-Michel Jarre, Maria Grazia Mattei, MEET Digital Culture Center, Antoine Picon)
2. Space Garden (Aurelia Institute, Heatherwick Studio, Brent Sherwood)
3. A Satellite Symphony (Space Caviar, Robert Gerard Pietrusko, Ersilia Vaudo)
4. Impermanences Tractatus (New-Territories_S/he_F. Roche, Emanuele Coccia, Dave Pigram, Shirley Tam, Damien Sorrentino, Mika Tamori)
5. The Third Paradise Perspective (Fondazione Pistoletto, Cittadellarte, Armona Pistoletto, Nazarena Capellaro)
6. Lunar Ark (IVA AIU City, Korea Aerospace Research Institute)
7. Living Architecture: Biophilia (Refik Anadol)

Selected National participations and Collateral Events:

8. Sonic Investigations (Luxembourg Pavilion)
9. NON-Belief: Taiwan Intelligens of Precarity (National Taiwan Museum of Fine Arts, Collateral Event)
10. *un*Earthed / Second Nature / PolliNATION (The Virginia Tech Honors College, Collateral Event)