

HOLISTIC VISIONS: ENVIRONMENTAL SUSTAINABILITY

Friday, 20 May 2022
4 p.m. – 6:30 p.m.

Also broadcasted through the
AHA Forum virtual platform.
Access at ahamadrid.org

Key words: environment, location; ecology, building
design, green buildings, green cities, climate change
and energy efficiency; pandemic and health;
unoccupied housing; right to housing.

The UIA 2022 International Forum “Affordable Housing Activation: Removing Barriers” accelerates previous discussions on access to housing and provides an action-oriented declaration as an outcome of the Forum to be held in Madrid, Spain from 18 to 20 May 2022. The Forum is organized by the International Union of Architects (UIA) and the Superior Council of Colleges of Architects of Spain (CSCAE).

The Forum’s main objective is to contribute to improving access to decent and adequate housing throughout the world, through the generation of global networks and alliances that promote shared knowledge. The AHA Forum identified 6 barriers to affordable and adequate housing: mismatches (housing needs, demand and supply), financing, policies & regulations, promotion & production, ownership & tenure and urban design.

This session on environmental sustainability serves to bring issues of environment into all above mentioned “barriers” in order to support their solving. This session considers how environmental sustainability can be ensured in urban design (barrier 4); in the housing legislation (barrier 2) or environmental sustainability when planning financial investment into real estate (barrier 3), as well as environmental sustainability in the production of housing (barrier 5), and others. In recent years, the environmental dimension has become one of the most prominent components of affordable and sustainable development in delivering quality of life for communities.

The main theme of this discussion is the protection of natural resources and ecosystems based on the notion of fostering mindful ecological responsibility, while also ensuring that human development preserves or improves people’s living environment. We will be analysing exemplary buildings based on their environmental sustainability, and experts on the subject will showcase how to respect the environment by using architectural materials and techniques that also help to reduce emissions while contributing to energy efficiency, responsible habits, the promotion of renewable energies and the circular economy.

While the fundamental principle linking innovation and affordability relates to the reduction of material costs, it is also associated with the reduction of construction costs, in terms of labour and the time taken to carry out the work. Similarly, there is a whole range of innovation related to the production of alternatives that can be implemented by people through self-construction processes, or construction systems and materials that take into account raw materials and local cultures, and, more recently, under the perspective of environmental sustainability, the climate and energy efficiency of materials, as well as their life cycle.

The latest report by the United Nations Intergovernmental Panel on Climate Change (IPCC) confirms that housing is essential to adaptation and that healthy, decent, affordable and sustainable housing must be at the core of the climate transition.



HOLISTIC VISION:

Speakers come from a range of backgrounds, from national and local governments, United Nations agencies and programmes, other international organizations, and academia, and will provide answers on how to address environmental sustainability in the housing sector and provide information on best practices globally. In addition to a moderated discussion, well known architects in the field of sustainable architecture will present their works from around the globe, showcasing new design practices.

Objective of the session

Propose three priority actions to accelerate the crossing of the environmental sustainability barrier in relation to affordable housing.

Guiding Questions

- What could be the most effective ways to embed environmental sustainability in all housing regulatory frameworks?
- Improving, adapting, or extending the existing housing stock seems to have several advantages from an environmental perspective – reuse of something already created, avoiding the production of new materials, density of cities vs sprawl, land management, etc. How to translate this positive environmental impact into incentives for developers and public-private-people collaboration?
- How to coordinate and streamline the delivery of energy and water services in the planning of affordable housing in the upcoming decades, especially for those most vulnerable?
- How to incentivize the use of locally produced and available materials in adequate and affordable housing?

Agenda of the session

- 4 p.m. Opening intervention of the Chair's session.
Carlos Sallé, international expert in energy transition and sustainability, Spain
- 4.15 p.m. Initial proposal of priority actions to face the barrier by each speaker:
- *Eugenie L. Birch*, Lawrence C. Nussdorf Professor of Urban Research and Education, University of Pennsylvania
 - *Washington Fajardo*, Rio de Janeiro City Planning Commissioner
 - *Carl Hensman*, Senior Program Officer, Gates Foundation
 - *Susana Saiz*, director, Sustainability and Energy, ARUP
 - *Bruno Sauer*, CEO, Green Building Spain
 - *Cassie Sutherland*, programme director, energy, and buildings, C40
- 4.45 p.m. Reactions from the Chair/speakers to the introductory remarks and first round of guiding questions to focus the discussion on specific proposals.
- 5.00 p.m. Presentation by *Francesca Cesa Bianchi*, Stefano Boeri Architetti, Partner and Project Director
- 5:20 p.m. Reflections on the case presented and second round of guiding questions
- 5.30 p.m. Presentation by *César Ruiz Larrea*
- 5.50 p.m. Reflections on the case presented and third round of guiding questions
- 6.00 p.m. Wrap-up and summary of priority actions proposed for the AHA Forum Madrid Declaration
- 6.30 p.m. End of the session

Biographies of invited chair and speakers

Carlos Sallé, international expert in energy transition and sustainability, Spain. Carlos Sallé is Industrial Engineer from the ETSII (School of Industrial Engineering) in the Universidad Politécnica de Madrid. He worked in areas related to system operation in Red Eléctrica de España (the Spanish Transmission System Operator). He was Director of Electricity at the energy regulator in Spain. He was also a member of the management team in charge of launching and setting up the Market Operator Company, as Operations Manager. He worked in the consultancy firm NERA as Associate Manager for the Energy Area. In 2001 he joined IBERDROLA Group as Regulation Vice-President, and in 2014 was appointed as Vice-President of Energy Policies and Climate Change directly reporting to the Chairman. Carlos is Member of the Business Advisory Board in the Public-Private-Partnership unit at UNECE (Geneva) dealing with Sustainable Development Goals. He was one of the founders of Energía Sin Fronteras, an NGO specialized in water and electricity projects in rural areas of non-developed countries. He is President of the Energy Commission at Spanish Commerce Chamber.

Eugenie L. Birch, Lawrence C. Nussdorf Professor of Urban Research and Education, University of Pennsylvania. She teaches courses in global urbanization and the doctoral seminar and serves as chair, Graduate Group in City and Regional Planning, co-director, Penn Institute for Urban Research, co-editor, *City in the 21st Century Series*, University of Penn Press and co-editor, *SSRN Urban Research* e-journal. With Penn IUR she recently completed a project “Entrepreneurship & Innovation in Connecticut’s Higher Education System” for the state of Connecticut. Professor Birch has been active in the field’s professional and civic organizations in the United States and abroad. She is president, General Assembly of Partners (GAP), the engagement platform for the implementation of the UN’s *New Urban Agenda* and associated global agreements, co-chair, Sustainable Development Solutions Network (SDSN) Thematic Group on Cities, and an Associate Editor, *Journal of the American Planning Association*. In the past, she has been president, Association of Collegiate Schools of Planning; president, Society of American City and Regional Planning History; president, International Planning History Society; and co-editor, *Journal of the American Planning Association*. She has been a member of the Planning Accreditation Board, having served as its chair from 2004-2006. She has been a member of the editorial boards of *Planning Theory and Practice*, *Journal of Planning History*, *Journal of Planning Education and Research* and *Planning Perspectives*. In the early 1990s, she was a member of the New York City Planning Commission, and in 2002, she served on the jury to select the designers for the World Trade Center site. She has chaired the Board of Trustees of the Municipal Art Society of New York and is currently a member of the Board of Trustees of the Regional Plan Association of New York. Professor Birch lectures widely. She has been Visiting Scholar, Queens University Ontario, Canada; Foreign Scholar, University of Hong Kong and Visiting Professor, University of the Witwatersrand, Johannesburg, South Africa.

Washington Fajardo, Rio de Janeiro City Planning Commissioner. Architect and urban planner graduated from the School of Architecture and Urbanism of the Federal University of Rio de Janeiro - UFRJ. He is the author of the architectural design of the Arena Carioca in Pavuna; author of the architectural design of the revitalization of Imperator - Centro Cultural João Nogueira, in Méier; conceived the mechanism that dedicated 3% of the value of CEPACs for Cultural Heritage in the Port; created the Pro-APAC edict recognized in 2014 with the Rodrigo Melo Franco de Andrade Award (IPHAN), and created the Open Laboratory of Urban Archaeology. Since 2015, he has been an advisor to the Council of Architecture and Urbanism of Rio de Janeiro - CAU-RJ. In 2016, he was selected as curator of the Brazilian pavilion at the Venice International Architecture Biennale. In 2018, he became a Loeb Fellowship at the Harvard Graduate School of Design. Also, since January 2021, he is

the municipal secretary of Urbanism of Rio de Janeiro, as well as president of the Pereira Passos Institute.

Carl Hensman, Senior Program Officer, Gates Foundation. Previously he was with the Water, Sanitation and Hygiene team at the Bill & Melinda Gates Foundation where he operated broadly across investments in the WSH Program Strategy but specializes in technology discovery and development for the Transformative Technology initiative. In addition, he was also an Energy Program Manager for King County, WA, focusing on resource recovery in the Wastewater Treatment Division. Other past roles include: Chief Technology Officer for Asemblon; Chief Scientist/Engineer, Principal, and Director on the Board of Frontier Geosciences Inc. and has also been an employee of DowElanco, Exxon. and British Coal. He has also served as a scientific advisor at the state and federal level. Carl received his doctorate from New Mexico State University in Chemistry and spent two and a half years as a postdoctoral fellow at The Ohio State University.

Susana Saiz, director, Sustainability and Energy, ARUP. An architect by training, she brings more than 20 years of experience as a sustainability consultant with strong skills in systems thinking and integrated design. Susana has managed the certification of more than 50 projects worldwide. With more than 14 years working as a LEED Accredited Professional (AP), she believes that sustainability frameworks are essential to quantify and measure sustainability performance and pave the way towards restorative design. As the first WELL AP & Faculty accredited professional in Spain, she led the certification process for Spain's first WELL Core & Shell certified building. Susana lectures in several universities on sustainability in the built environment. She is also part of the group of Activists within the Europe Region helping to promote and embed the UN Sustainable Development Goals (UNSDGs) in our daily practice, driven by innovation and acknowledging the demands from our people, our clients and our environment.

Bruno Sauer, CEO, Green Building Spain. He is an architect and town planner by training. Graduating at Henry van de Velde Antwerp, he completed his education with a master degree in architecture and criticism and a master degree in urbanism, both at the Technical University of Cataluña. After six years of professional practice in Barcelona he started his own office in Valencia. From 2009 a specific department of applied research was developed in the office, focusing on proposals and projects for the EU, Climate KIC, Qatar Foundation, BID and the World Bank, most of them related to climate adaptation and mitigation on an urban scale. He has been teaching on urban planning, urban design and sustainable building since 2003, first at the Technical University of Valencia, and currently at the European University of Valencia, where he has been elected Director of the Master Degree Programme in Architecture. In 2011 he joined the Green Building Council Espana as Technical Director. Later, in 2015 he was elected CEO of GBCE.

Cassie Sutherland has been program director for energy and buildings at C40 Cities since March 2020, overseeing support to cities on reducing energy consumed by existing buildings. She ensures new buildings are efficient from the start and cleaning up the energy supply to buildings and beyond. Sutherland brings over ten years of experience in climate change and energy. Previously, she was the project manager for the London Environment Strategy (2018) at the Greater London Authority where she also led the climate adaptation and sustainable development team. Before that, Sutherland worked at the U.K. energy regulator Ofgem for more than three years. She has also developed a national government policy on smart energy systems. She graduated from Newcastle University with an MSc in Clean Technology and holds a BSc in Environmental Geoscience from Edinburgh University.

Case studies

Francesca Cesa Bianchi, Stefano Boeri Architetti, Partner and Project Director. Graduated in 2005 in architecture at Milan Politecnico. In 2008 she attended a first level master on collective housing at the Escuela Politécnica de Madrid. Since 2006, within her collaboration with different architectural firms in Milan and Madrid, she manages complex multi-purpose projects from competition phase, through concept, preliminary and detail design, to construction documentation. Francesca Cesa Bianchi is currently Partner of SBA (since 2019) and Project Director; she coordinates urban regeneration and architecture projects in Mexico, Russia, Netherlands, Egypt, and Qatar. Since 2015 she has played a key role in the management of all architectural projects and strategic plans in Albania.

César Ruiz Larrea has its Ruiz-Larrea & Asociados, based in Madrid, founded by him and Antonio Gomez in 1997. A large team of collaborators from different disciplines in a permanent professional transversality, the office is developing mid-scale proposals and patents, enriching its research in the field of architecture and urbanism. Courses, lectures, masters are also a constant exchange that fuel the research and design processes carried out at the office. César Ruiz-Larrea has lectured at the most prestigious national and international universities.

