

BAUHAUS ● EARTH

# RECONSTRUCTING THE FUTURE



# FOR PEOPLE AND PLANET

conference program

09. - 10. June 2022

The Pontifical Academy of Sciences (PAS) has a track record of eminent events addressing anthropogenic global warming, biodiversity loss, social inequality, forced migration and other burning issues related to the imminent sustainability crisis of our civilization. PAS also supports the worldwide discourse initiated by Laudato si', Pope Francis' game-changing encyclical on the "care for our common home".

The built environment is a crucial factor in the climate equation: buildings and infrastructures are directly responsible for roughly 40% of the global greenhouse gas emissions, if one adds up the effects of construction, operation, and demolition. The dysfunctional distribution of cities and villages in space causes significant further emissions, especially by forcing people to commute over long distances using vehicles powered by fossil fuels. Beyond the environmental dimensions, contemporary settlements often divide, rather than unite, social strata and leave the "bottom billions" of human beings behind in slums and favelas.

The Pontifical Academy of Sciences and Bauhaus Earth are bringing together world-renowned practitioners and thinkers on crucial dimensions of the built environment. Join the conference via Zoom [here](#).

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Thursday, June 09

**Session 1 - Opening** \_\_\_\_\_ 09:00 - 10:40  
Prof. Dr. Joachim von Braun

Words of Welcome \_\_\_\_\_  
Prof. Dr. Joachim von Braun & Card. Peter Turkson, PAS Chancellor

Saving the World by Construction \_\_\_\_\_  
Prof. Dr. Hans Joachim Schellnhuber

Assessing the massive carbon footprint of the built environment in the Anthropocene and envisaging how, better ways of construction, urban development, and spatial planning shall boost the green transformation.

The New European Bauhaus Vision \_\_\_\_\_  
President Ursula von der Leyen

Presenting the vision of the New European Bauhaus initiative as the soul of the European Green Deal, emphasizing the key criteria sustainability, inclusion, and beauty.

Sustainable Architecture \_\_\_\_\_  
Diébédo Francis Kéré

Reflections on how we can settle people worldwide and especially on the unsustainability of the western construction approach.

Coffee Break \_\_\_\_\_ 11:00 - 12:50

Session 2 – Construction Challenges and  
Solutions Across the Globe \_\_\_\_\_ 11:00 - 12:50  
Bishop Marcelo Sánchez Sorondo

Critical Appraisal of Building Materials \_\_\_\_\_  
Prof. Dr. Andreja Kutnar

Presentation of the various construction materials used in different regional and cultural contexts. Assessment of the respective sustainability costs and benefits.

African Context \_\_\_\_\_  
Wanjira Mathai

In 2100, the continent is projected to host the world's top-three mega cities: Lagos, Kinshasa, and Dar es Salaam. This presentation explores the specific realities of the built environment across the "young" African continent, addressing, inter alia, the generational gulf of dreams and ambitions between the public and its government leaders, and the legacies of colonial extractivism.

Asian Context \_\_\_\_\_  
Xu Tiantian

The Asian continent faces rising greenhouse gas emissions, water scarcity, deforestation, and land degradation. This presentation explores how changes to the how we build can fit into a world where these challenges are met.

Latin-American Context \_\_\_\_\_  
Ana María Durán Calisto

The LATAM region is the second most urbanized region in the world, suffering from entrenched inequities, with roots in imperialism, slavery, and ethnic cleansing. This presentation traces the erasure of indigenous building knowledge and the effects of the western development paradigm across the continent to identify better construction and planning approaches to the future.

MENA Context \_\_\_\_\_  
Wael Al Awar

The MENA area is one of the most vulnerable regions regarding increasing climate stresses, especially those brought about by rising temperatures and inhomogeneous precipitation. This presentation will especially explore how to build and settle in carbon-neutral or even carbon-negative ways in extreme climates.

Discussion \_\_\_\_\_

Lunch \_\_\_\_\_ 12:50 - 13:50

**Session 3 – Meeting the New Bauhaus** \_\_\_\_\_ 13:50 - 16:30

**Challenges - Sustainable, Inclusive, Beautiful**

Prof. Dr. Philipp Misselwitz

Climate-Smart Construction and Urbanization \_\_\_\_\_

Prof. Bjarke Ingels

Bird's eye view on how building and planning in the 21st century can address the climate mitigation and adaptation imperatives in the pertinent sectors.

Sustainable Digitization and Data Democracy for Urban Transformation \_\_\_\_\_

Prof. Dr. Francesca Bria

A detailed look into how data democracy co-evolves with the transformation of urban environments and settlement structures in space.

How to “Build” Equity \_\_\_\_\_

Prof. Edgar Pieterse

Colonialism, imperialism, extractivism, and the contemporary global system of consumption have generated massive social inequalities at all scales. These disparities are heavily reflected and cemented by the built environment. This presentation explores whether and how human equity and ecosystems integrity can be promoted by architecture, as well as dedicated urban and rural design.

Discussion \_\_\_\_\_

**Break** \_\_\_\_\_ 15:00 - 15:20

Life, Growth, Death, and Sustainability from Organisms to Cities and Society \_\_\_\_\_

Prof. Dr. Geoffrey West

Analyzing and quantifying the spatial patterns that emerge from largely self-organized urbanization and exploring the potential connections between settlements/landscapes geometries and sustainability.

The Popularity of Beauty \_\_\_\_\_  
Prof. Lesley Lokko

Discussing the nexus between functionality and aesthetics in the built environment with a special focus on “beauty” as a social value beyond elite identity.

Regulations 4 Future \_\_\_\_\_  
Klaus Mindrup

Assessing how regulations, standards, incentives, subsidies etc. shape the built environment and how appropriate reforms would foster sustainable development of that sector in Europe and worldwide.

Discussion \_\_\_\_\_

**Panel Discussion and Conclusions** \_\_\_\_\_ **16:30 - 17:45**  
Prof. Dr. Veerabhadran Ramanathan

With Federal Minister Klara Geywitz, Vicente Guallart, Prof. Alan Organschi,  
Monica Tanuhandaru

Retrospective discussion on the day’s discussions and further input from participants.

\_\_\_\_\_ **Friday, June 10**

**Session 4 – From Mining to Gardening** \_\_\_\_\_ **09:00 - 10:20**  
Sandrine Dixson-Declève

50 Years since The Limits of Growth \_\_\_\_\_  
Sandrine Dixson-Declève

Reflection on the 50 years anniversary of the publication of “The Limits to Growth” report by the Club of Rome, an introduction to the role of the minerals-extracting economy in constructing the modern world and the necessity to replace that economy by a fully regenerative version of value creation.

Mauritanga: Activating Transformations for an Ecological Urbanism \_\_\_\_\_  
Prof. Dr. Amanda Yates

Presentation of transformative action tools for systems change - towards holistic socio-cultural-ecological well-being.

Towards a Circular Bioeconomy \_\_\_\_\_  
Dr. Elspeth MacRae

Reflection on the necessity of overcoming the extractive-linear economic approach and outlining realistic trajectories towards a planetary economy based on renewable resources & energies that sustains almost-closed regional circles.

Paradise Found \_\_\_\_\_  
Andrea Gebhard

Exploration on how anthropogenic and natural elements can be composed and entangled in cities and landscapes in the sense of wise gardening.

Discussion \_\_\_\_\_

**Break** \_\_\_\_\_ 10:20 - 10:40

**Session 5 - Natural and Digital Resources** \_\_\_\_\_ 10:40 - 11:50  
Prof. Dr. Edgar Pieterse

Farmer-led Fight against Desertification \_\_\_\_\_  
Tony Rinaudo

Presentation on traditional and innovative approaches to the restoration of degraded land.

## Sustainable Forest Management \_\_\_\_\_

Dr. Marc Palahí

Presentation on the state of the art of sustainable forestry concepts and practices with special emphasis on the climate crisis and the supply of organic building material.

## The Power of Digitalization \_\_\_\_\_

Prof. Dr. Carlo Ratti

Exploration of the options, opportunities and risks of advanced digital tools and concepts for the green transformation of the housing-infrastructure-mobility complex.

## Discussion \_\_\_\_\_

## Break \_\_\_\_\_

11:50 - 12:00

## Session 6 – Settling the Unsettled \_\_\_\_\_

12:00 - 13:10

Prof. Dr. Vyjayanthi Rao

## The Challenge of Informality \_\_\_\_\_

Sheela Patel

Presentation on the right to dignified living for unserved communities, which requires a new social contract for the built environment. Special emphasis should be given to the question whether informality and sustainability can be reconciled.

## Emergency Architecture \_\_\_\_\_

Shigeru Ban

A deep look into the challenge of regenerative rapid building practices for populations facing calamity such as natural disasters, resource depletion or forced migration.



Rebuilding Ukraine \_\_\_\_\_  
Olena Vozniak

Presentation on the role of built-environment education in the current and future reconstruction of Ukraine as illustrated by CANactions.

Discussion \_\_\_\_\_

**Lunch** \_\_\_\_\_ 13:10 - 14:10

**Session 7 – Conclusion** \_\_\_\_\_ 14:10 - 15:30  
Prof. Dr. Joachim von Braun and Prof. Dr. Hans Joachim Schellnhuber

The Christian Perspective \_\_\_\_\_  
Archbishop Paul Gallagher

Reflection on the Christian perspective on the built environment and its transformation towards sustainability, inclusion, and beauty.

Discussion and Conference Statement \_\_\_\_\_