

REthinking Sustainability TOwards a Regenerative Economy

RESTORE FINAL ONLINE CONFERENCE 3RD DECEMBER 2020

Note:

1) The title should be as brief as possible; 2) Your abstract must not be longer than 300 words, and it should state briefly and clearly the purpose, methods, results and conclusions of the work; 3) Please provide a short CV + Foto for upload on www.eurestore.eu/restore-final-conference/.

Title:

Characterization of a regenerative indoor environment

Author & affiliation:

Dr. Lorenza Pistore
Department of Environmental Science, Informatics and Statistics
University Ca' Foscari of Venice
Scientific Campus, via Torino 155, 30172 Mestre (VE), Italy
lorenza.pistore@unive.it

Abstract: (max. 300 words)

In the last decades, buildings construction and cities development have focused mainly on fulfilling functional and aesthetical needs, along with comfort and energy efficiency goals, driven by a rapid increase in population growth and industrialization. Consequently, buildings have progressively lost their role as a mediator between human and natural environments, with a gradually stronger hegemony of the human habitat over the other ecosystems. The damage brought by this process has eventually come to the extent that there is now the necessity to go beyond "doing less bad" to "doing more good" for the environment. In this direction, the aim of a regenerative design is to restore ecosystems, enabling the social and ecological share to maintain a healthy state and co-evolve, targeting indoor spaces which empower and improve occupants' health and wellbeing. The new "generation of health", expressed with the term salutogenesis, finally makes wellbeing a key part of the new paradigm.

With these premises, the purpose of our task has been to identify Key Performance Indicators (*KPIs*) for indoor spaces, so as to support a radical shift from merely limiting health-related impacts, to newer regenerative performances. KPIs are meant to fully embrace the meanings of health and wellbeing in indoor design, construction and technologies. Several aspects have been considered for achieving high indoor environmental quality (*IEQ*), from the conventional comfort areas to more innovative ones connected with human-nature environmental values. On this inspirational journey, the starting point consisted in the current standards, where different requirements for the same indicator coexist and an uncertainty over standardization complicates the interpretation of regulations and the understanding of the required performance levels. The final goal has been to define a set of KPIs to provide designers and practitioners with a tool for the definition of better and regenerative indoor environments, and for their assessment.

Keywords: (max.5, please use semicolons)

Regenerative design; indoor environmental quality; Key Performance Indicators; salutogenesis; wellbeing











REthinking Sustainability TOwards a Regenerative Economy

RESTORE FINAL ONLINE CONFERENCE 3RD DECEMBER 2020

Short CV: (max. 100 Words + Foto)

Dr. Lorenza Pistore is a post-doctoral research fellow at the Department of Environmental Science, Informatics and Statistics of the University Ca' Foscari of Venice. After a master degree in Architecture in 2015 at University Iuav of Venice, in 2019 she obtained her PhD in Sustainable Energy and Technologies from the Free University of Bolzano.

In 2017 she spent a period at the Center for the Built Environment of the University of Berkeley in California, where her contribution concentrated on Post Occupancy Evaluations for Indoor Environmental Quality and lab tests on human CO2 self-exposure.

She has been contract professor of building physics at the University Iuav of Venice.

Her research activities concentrate mainly on Indoor Environmental Quality, with a deeper interest in thermal comfort and indoor air. She has deeply worked on educational buildings, focusing both on occupants' wellbeing and productivity, and energy efficiency retrofit. Her work generally includes monitoring campaigns, laboratory tests in controlled climatic chambers and simulation modelling.

Within the EU COST Action RESTORE "Rethink Sustainability Towards a Regenerative Economy", she has participated in WP4 as leader of the Task "Technology-related parameters that make an indoor environment regenerative", and she supervised the organization of the training school "Rethinking technologies for regenerative indoor environment" held in Venice. She is currently WP leader in the H2020 project CULTURAL-E "Climate and cultural-based solutions for Plus Energy Buildings".









