



# ITRUVIO

International Journal of  
Architectural Technology and Sustainability



## CIRCULAR ARCHITECTURE

Interview to **BENEDETTA TAGLIABUE**



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# Editorial

The contemporary scenario gives an increasingly higher complexity to the project of the built environment, determined by the quantity of factors involved and by the crisis that afflict them. Architecture has always followed the evolution of contexts and people, but today it is called upon to absorb radical changes that do not only concern formal or functional aspects but the survival of the planet and of men. If *firmitas* remains an invariable factor, even if it acquires complexity for the risks given by natural disasters, *utilitas* and *venustas* are destined to broaden their meanings. In fact, today the usefulness of a building is not only directly proportional to the possibilities of using it immediately but also compared to the possibilities that it can offer in the future (considering the conditions of the economic and health crisis). The concept of beauty of architecture has also overcome formal issues to be realized through the harmony between building systems, natural cycles of ecosystems and the quality of human life. It is no longer enough giving or giving back architectural quality to the building but it is urgent to seek a 360° quality, reconsidering the relationship between nature and buildings. The current reality configures particularly articulated demand frameworks, to whom rather than deciding if to demolish, transform or preserve we have to 'design' sustainable development processes of building systems and contexts as a whole. In the design activity, besides having to consider with particular attention requirements such as adaptability and flexibility because they are fundamental to prolong the life of buildings, it is necessary to bring the concepts of reuse and recycle back to the works to be carried out (both for new and existing buildings). Therefore the project can no longer only respond to the intervention needs of the present but must provide a predisposition to the evolution processes to satisfy future needs. Architecture should not only be built to become a real estate but it must also be built to externalize the character of a "built organism" and combine with natural cycles. The material-constructive choices should also consider among the available resources, those that can give not only excellent technical results but also advantages for people and for the planet. In this direction, the problems resolution can become the trigger for sustainable development processes if it is possible "to put into operation" the resilience capacities of places and individuals.

The writings in this issue of Vitruvio (*Circular construction, technology and architecture*), decline in different directions the need to find new and shared design approaches, dictated by the just described scenario. The issue of circularity is faced, both in material terms (products and technical solutions) and in immaterial terms (performance of the spaces), at different scales and contexts.

Reflections are proposed on the relationship between the sustainability of the built environment and the ability of building systems to meet evolving needs. The circularity of the building is also addressed, presenting patented technical solutions able to simplify and speed up assembly and disassembly operations, to promote systems that can be reused and change location, with particular reference to emergency situations or the living needs. With this in mind, the project of adaptability becomes the key for defining and implementing resilient solutions. The articles also offer a critical reading of the (linear) architecture built before the development of the circularity concepts, to focus on the actions necessary to achieve a performance adjustment of public housing. Still with reference to this type of building, reflections are developed and studies are presented on the theme of regeneration aimed at achieving adaptive solutions to the scales of individual environmental units, accommodations, buildings and public spaces. Then they present material-construction solutions oriented towards circularity that is to trigger development processes through a project aimed at sustainability, adaptability, disassembly and recycling. Characteristics of sustainability are also found in some examples of traditional Turkish architecture which reveal excellent functioning in terms of comfort (temperature, ventilation, natural lighting) with consequent minimum energy consumption. For these buildings, analyses and developments are presented to re-propose the principles of sustainability in a new circular architecture. Another central issue of circular architecture that is dealt for the abandoned buildings and networks (as a result of processes of deindustrialisation), such as the disused railway heritage. Building reuse therefore becomes an important issue and acquires new roles as it allows “on standby” resources to be put back into operation and to design architectures that hopefully should never go “on standby».

The articles contained in this issue bring out various aspects and lines of research that can be further investigated and expanded to promote a complete development of the circular architecture concept.

Donatella Radogna