

## RESILIENCE AND BUILT ENVIRONMENT

Starting from the definition of resilience as the capacity of a system of regenerating and/or re-organizing itself after adverse events, the Call aims at deepening the original relation between the built environment – mix of forms, functions, inhabitants – and the need of adaptation/ transformation to the impacts coming from natural and human made changes, that could modify performances and efficiency.

In this perspective, the correspondence between risk and resilience is very important. Resilience, indeed, is here intended as both hazard and site specific condition, aimed at reducing vulnerability of the assets exposed to impacts and of the potential losses. Whilst the differences concerns risk typologies (natural, human made, social and economic) the concept of resilience is expressed by specific indicators aimed at understanding weakness and vulnerabilities of the context and the load of those determinants by which operating in order to redevelop the system efficiency, working on the production process and the project, on the performances required, on the construction material and on building products. According to this, two different approaches could be distinguished: one is based on the adapting strategies, focused on the systemic condition of the project and of the processes connected by: such kind of approach operates on the form and on the inner characteristics of the built environment in order to create new layouts and new uses, so that the system arises the adequate performances; the other approach is based on mitigation strategies, focused on technological innovation (products, processes, projects), aimed at minimizing impacts coming from extreme events, at reducing resources exploitation and at reducing greenhouse gases emission.

Within these two main classes of strategies, the Call aim at pointing out paradigmatic scenarios of “resilience thinking”, through which border the position of the Architecture Technology and the advances done in the last decade. The general aim is to give back the debate on resilience developed into the field of Architecture Technology - even with contributions coming from other disciplines – focusing on both the specificity of the research tradition and the thematic approach developed within the Technological Society (SITdA clusters).

In particular, the relation between the built environment and resilience is expressed in a specific field of thinking that invests both the technological/ spatial and environmental conditions of the project, both the material/ constructive aspects of the existing heritage, both the demand for new performances for dwelling, including consolidated practices for conservation and the production of anthropic spaces.

Therefore the specific aim of the Call is to deepen the theoretical and methodological aspect, as well as the on field research focused on the following concerns of resilience:

- **as multi-scaling and multi-sector condition**, connected to risk adaptation and risk mitigation, structured through the updating of the knowledge production processes and of projects, both aimed at organizing set of requirements, varied and transversals, fit to facilitate actions for fostering and recovering urban system functions after disasters; resilience is also intended as condition for improving quality, intended as the capacity of acting on the built environment by integrated ways (the quality of the technological-spatial solutions, as well as qualities of ecological systems and of social governance);
- **as "hazard-specific"/ "site-specific" condition**, caring at providing methods and protocols for assessing stress tests for the vulnerability of the built environment, including not-physical vulnerabilities such as the historical identity of the place and/ or the material and not-material assets; focusing on providing methods for understanding and for assessing specific criticalities/ vulnerabilities of the built environment, including those connected to physical and functional obsolescence (performances, qualities, stress-tests); aimed at producing digital interfaces as well as methods for selecting indexes and indicators correspondent to different project scales for identifying integrated scenarios;
- **as engine of circular processes**, for defining potentialities in the co-evolution of the built-environment and inhabitants through new design methods; for highlighting, and reinforcing both temporal and indeterminateness critical dimensions (referred to projects and processes) through ex-ante and ex post evaluation best practises; for generating both green and circular economies;
- **as condition of innovation**, referred to the projects and/ or to the creation of technological systems (or sub-systems or components) able at adapting to strains and stresses; referred to the creation of products aimed at reducing resource exploitation and the environmental impacts; referred to life cycle design solutions and to the vulnerability reduction of the built-environment.

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Authors are invited to send an abstract of **4000 characters** (spaces included) in Italian (or English, in case of foreign author). The abstract is intended to report the main contents planned to be proposed in the article. The abstract has to be written in a clear and

concise manner, showing an effective correspondence to the topic of the call. Furthermore, the abstract has to follow the following structure:

- object of the proposal and aim of the article;
- approach and/or methodology.

Authors are invited to specify if their contribution is targeting the “research and experimentation” or “essays and viewpoints” section.

In particular, the “research and experimentation paper has to outline:

- results: analytical aspects, proposals, debates;
- originality: by explaining what is new and for whom;
- limits of the research and significative results;
- cultural implications (practical or socio-economic) when present;
- reference to research/researches, relevance of the topic, subjects involved, fundings.

In the case of an “essays and viewpoints” proposal, attention has to be given to:

- cultural and scientific background with regard to the proposed topic;
- analytical aspects, the state of the art of the critical fields and debates on the topic.

For both sections, the abstract has to be introduced by specific keywords, reflecting the essential elements of the paper. The abstract has to be sent to [redazionetechne@sitda.net](mailto:redazionetechne@sitda.net) by **September, 8th 2017**, using the sheets attached to this call. The authors of the accepted abstract will receive information by the Editorial Team by **September, 25th 2017**.

Once the abstract has been accepted, the authors are invited to submit the paper by **October, 27th 2017**. The paper has to respect the limit of **max 20.000 characters**, spaces included, in the case of single author; **max 24.000 characters**, spaces included, in the case of multiple authors. The papers will be submitted to a double blind review and the authors, whose papers have

been accepted, will receive further information by **December, 1st 2017**. The final version of the paper, integrated with the suggestions given by the referees, will have to be submitted by **December, 18th 2017**.

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Section	Research and experimentation	Essays and viewpoints
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