



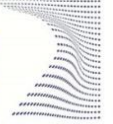
**Politecnico
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**UNIVERSITÀ
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Doctoral Dissertation
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Fostering value creation in architecture

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Abstract

In the perspective of a green and sustainable future, architectural choices, together with urban ones, should be made as clearly as possible in order to orient transformations towards environmental, economic and social sustainability. Indeed, these choices prove to be challenging as the architectural and urban context of reference is complex and characterised by multiple dimensions, objectives, interests, uncertainties and preferences to be considered and managed simultaneously.

Thus, an important issue is to understand how such choices can be supported and oriented to be in favour of an innovative and sustainable future. This point is related to the request of the European Commission (2020a), that encourages the development of integrated tools for design and decision-making in the context of developing a sustainable and circular built environment with the aim of taking impacts into account.

This request from the European Commission, in the context of sustainable architecture, could be answered in the identification of an evaluation method or methods to support sustainable architectural project evaluation, investigating its potential different characteristics with respect to: the public context of choice among design alternatives; and the private context of project approval and thus to support the design of alternatives. This gap is also highlighted in the sectoral literature and in current public and private real estate development processes. Indeed, in both public and private spheres, projects are not evaluated with respect to their ability to create value on all dimensions of sustainability; instead, primarily economic and environmental analyses are required. The process of developing design alternatives is configured as a decision-making process in which choices must be made: evaluation can make these choices transparent, explicit and shareable by permeating the selection phases of the components of the scenarios.

In this context, the objective of this thesis is to investigate the role of evaluation in the development of sustainable architectural designs and more specifically to understand how it is possible to support the development, measurement, and evaluation of architectural design projects so that they can be considered as sustainable and value creating projects. In this sense, the research intends to analyse the features and peculiarities of the problem at hand and to reflect on techniques for the architectural project and sustainability appraisal, investigating which assessment method can support the development of sustainable architectural projects able to create value. Therefore, it is envisaged to investigate the logic of value creation (economic, social, environmental and cultural) of the architectural transformation projects that will be introduced into the market, identifying a methodological evaluation path useful to support in the justified selection of the most appropriate valuation method or methods for the needs of the issue under analysis. This method or methods will be the output of the research and its potential usefulness could be in the selection and approval phase of the project, supporting the Public Administrations in the development of sustainable cities.