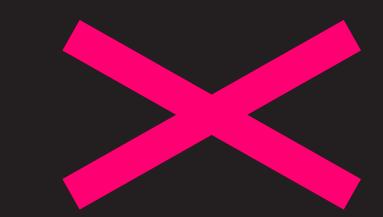
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Leisure / Hospitality / Exhibition_Three mixed-use projects for Milan, Olbia, Sanya, at the frontier of teaching, researching and professional design

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Introduction

This poster introduces the comparative study of the generative process of three architectural and landscape projects which share compositional logics, technological choices and morphological approaches. This contribution is aimed at investigating and making explicit, through diagrams and schemes, the mutual relations of necessity between construction systems, topographic context and its manipulation, morphogenesis of the artifacts, as elaborated on the frontier between academic research and professional practice.

Research

three projects investigate and represent the transition between theoretical speculation, teaching themes in Design Studios at the University and potentially direct applications into the operative professional realm of architecture. Developed between 2012 and 2016, they concern three sites prompted by complex functional programs pivoting aroundatypicalcontemporarymixsuchasleisure/tourism /exhibition,inMilan(Italy),Olbia(Italy)andSanya(China). Some common principles are imprisoned in the design process of these three works, although articulated in different yet comparable ways: 1_The ground as a matrix of the morphological operations applied to generating the geometry of the building. 2_The clear distinction between: a) the main building body shaped as a massive opaque block, b) a secondary cladding acting as a skin meant to both protecting from atmospheric agents and providing a compelling figure of the building, c) a variety of visible structural elements that convey and reveal the construction methods and procedures. 3 The assembled nature of the "independent" objects that animate the interiors and exteriors of the three complexes, from prefab parametric façade elements to interior design and urban furnishings, enhancing and confirming the character of a building constructed by successive layers, as a manufactured and mounted catalogue of industrially controlled pieces.

CCH, Capo Ceraso Hub, is the winning entry of an open competition on the radical reuse of an abandoned hotel in Sardinia. Entirely prepared simulating some typical Design Studio activities: rotational groups of interns and students alternatively focused on topography manipulation, Boolean control of volumes (by subtraction, addition, move) of the existing derelict building, intense digital and physical prototyping, parametric study of façade skin.

The unbuilt scheme of the Leisure center for the Chinese island of Hainan, Sky Court, came as a professional test on the findings of a semester of deep academic investigation carried within the frame of a Design Studio devoted to hospitality and related fields, eventually configured as a handy manual of practices, methodologies, design operations. Later on, a selected number of thesis students, set as a more operative research group, built upon such findings to update the result of informal, pedagogical exercises into a real world project.

The 2015 Milan Expo Cluster Design Workshop held at the Politecnico di Milano, a hybrid academic/ professional platform commissioned to prompt three tentative schemes for the Expo clusters, has been managing the design activity of a multidisciplinary team of students from Architecture, Engineering, Landscape Architecture, Interiors and Urban Design coming from international Universities. Groups of students were asked to investigate potential plans and 3D spatial schemes based on a reinterpretation of a tropical jungle, to come up with graphic metaphors on how the cocoa seeds are grown, processed and turned into final packed products. Such diagrams, conceptual models and texts served as a consistent basis for further professional development and the final implemented project.

The present study is aimed to explore and clarify how the following themes are covered under the umbrella of such a hybrid environment and how design process constantly commutes back and forth from academy to professional realm: a>the topics of the planned construction how the construction sequences, unveiling methodologies technologies would influence the of the design process. b>the main tools of form generation (form to program oriented), such as boolean operations, additions, subtractions, parametric developments of the "independent skin", transferred masses, varied geometries, perceptions, figures, image processing. c>the overlapping research areas of leisure, tourism, food, sport, hospitality, exhibition and their respective demands of spatial and compositive configurations; and how their apparently colliding needs produce emerging patterns of placemaking and livability.

