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VERBALE DI GIURIA

SUSTAINABLE ARCHITECTURE AND TECHNOLOGIES

Gold Medal

__Oltre l'argine maestro. Un progetto per le ex fornaci Etna e Totti a Villanova Marchesana (RO)
BEYOND THE MAIN EMBANKEMENT. A project for the Etna and Totti furnaces in Villanova Marchesana (RO)

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An industrial ruin from the late 19th century in the 40-hectare floodplain of Villanuova Marchesana in the province of Rovigo is to be revived. In the floodplain, now completely abandoned, nature has reclaimed its space and the anthropogenic artefacts it contains are overgrown with trees and plants so that they are barely visible. The aim of the intervention is for the population to return to this place to live and work. The existing buildings are mighty brick kilns with 5 floors and very beautiful factory buildings, which bear witness to the high culture of early industrial construction.
The idea of preserving the existing structures and using them for new purposes is generally to be welcomed in terms of sustainability. The former Totti furnace will house a germplasm bank, a food production center and a point of sale for products from the surrounding countryside and from the NFT hydroponic growing center inside the building. The seeds, which are considered rare plants in the regional red list, are stored there and then cultivated in the nursery and then planted in the planting basins of the botanical garden. Then they are processed in the former Etna furnace, transformed into a multifunctional center with a cooking school and accommodation for tourists and scientists. The new use is convincing and conclusive, because it makes sense to establish agricultural production in this water-rich area.
The goals include the production of energy from renewable sources with a water wheel and with photovoltaic panels on the new roofs. A water-water heat pump together with geothermal probes is used for the heating energy. Water is collected in 3 tanks to meet the water needs of the buildings.
The project documents provide little information about the structural measures and sustainable building concepts. In any case, the work offers a very nice and innovative approach to the topic: dealing with historical buildings and shows the immense urban and sustainable potential of this place. The illustrations and the creative elaborations are excellent

Silver Medal

__STEM_Architecture for developing countries
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The growth of cities in developing countries presents the affected regions almost impossible tasks. How can it be possible to provide housing for the exploding urban population very quickly and very cheaply? The STEM project adopts a well-known approach developed by Chilean architect Alejandro Aravena. The self-construction should move back into focus. The idea is very simple: a small cell, covering basic living needs, is built by the general public and sold to the future resident at an affordable cost. These cells are arranged in such a way that further construction and densification is possible. This can be done by their own.
The project was developed for the African town of Nyandiwa on Lake Victoria and uses the "mud and stick" construction method commonly used there, made of wooden profiles in combination with clay. The roofs are covered with the usual corrugated iron sheets.
The project deals with an important topic, the solution is correct, the presented buildings suggest a possible future scenario. Even if the result does not correspond to the architectural images we are using and have learned in school and even if many questions remain unanswered in connection with the construction and the organization of such a project, the discussion about the topic and the result must be recognized.

Honorable Mention

__Architetture per i Paesi in Via di Sviluppo. Nuovo Centro Amministrativo di Nyandiwa, Kenya
A new administrative center of Nyandiwa, Kenya
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An existing community center in Nyadiwa, in a village in Kenya on Lake Victoria, which consists of individual buildings housing a police station and the municipal administration, is to be expanded and reorganized. A large, folded roof summarizes all functions, resulting in

a striking building with a shaded courtyard that serves as a communication space with flexible usability. A real center is created with a striking architectural expression. The formal language is based on the existing building without copying it and something completely new with a high degree of conciseness and recognizability is created. The constructions are simple, local materials in combination with common industrial products result in a familiar yet independent design language without being obtrusive. A project that is appropriate for the context with the right constructive measures and high ecological standards. This is expressed in the attempt to ventilate the rooms naturally and to design the roof as a rainwater collector. All in all, a spatially beautiful and, in principle, well thought-out building that integrates perfectly into the existing situation.

__ESCOLA DO SOL - Progettazione Clever Tech tra innovazione e tradizione: sviluppo di spazi per l'istruzione a Farim in Guinea Bissau
ESCOLA DA SOL-clever tech planning between innovation and tradition

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ESCOLA DA SOL is located in a small village called Farim in Guinea Bissau. The project is based on a long-standing collaboration with the Politecnico di Milano, which has already produced three buildings.
The concept presented forms the end of the existing courtyard, which is bordered by these existing buildings. The concept is characterised by the decision to construct the new buildings according to the principle of adding basic modules that give rise to different types of spaces that adapt to different functional needs.
The buildings are equipped with porches and overhanging roofs that reduce solar radiation in the dry season and protect the raw floor infill from washout. The planimetric distribution of the various buildings is in dialogue with the existing natural and built elements. In this particular case, bamboo becomes the protagonist of the building project. Beams, pillars and the deck are made of Oxytenanthera Abyssinica, a species of bamboo well suited to the construction of structural elements.
The main building forms the backdrop of the existing courtyard and is the only two floor building that houses all the collective functions to support the mission and the new connected areas.
The project is a comprehensive design that combines social aspects and requirements with environmental and local conditions. The innovation of this project lies in the consistent implementation of the basic construction principles and the interplay of the bamboo structure and envelopes, the concept of the rigid raw earth wall and the bioclimatic strategies of the technical installations.

__Sperimentare un approccio progettuale partecipativo per l'economia circolare durante l'era del distanziamento sociale. Il Pagliaru Novu: un'architettura auto-costruita per il turismo esperienziale.
PAGLIARU NOVU - a self-built architecture for an experiential tourism

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The project " PAGLIARU NOVU deals with the attempt to rethink traditional shelters located in different places in Sicily as a starting point for an innovative design. The focus of the considerations is to re-describe the user experience in a tourist context.
The experience of nature is made accessible to the visitor in a special way. A key element here is the integration of windows into a traditional basic form.
The main components for the PAGLIARU NOVU are the water reed layer and the triangular frame structure. The wooden layer is a structure based on gabions filled with stones.
The basic structure and the components are constructed as a kit in such a way that self-construction is possible, thus ensuring the greatest possible participation.
In terms of material and morphology, the PAGLIARU NOVU is somewhat further removed from the traditional structure. The most striking feature is the design of the windows and the entrance. As the PAGLIARU NOVU is meant to be an integral part of the tourist experience, the concept revolves around the idea of enjoying the surrounding landscape also from inside the architecture.
By adding the word "novu", the author wants to summarise and specify the innovation concepts, showing that the presented design is an evolution of the classic Pagliaru, but remains strongly based on the traditional patterns.

URBAN AND LANDSCAPE SUSTAINABLE DESIGN

Gold Medal

__UN/ARIDSCAPE - A water development model for the desert, rural villages in the Arava Valley and a case study of kibbutz Elifaz (Israel)

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2019/2020

Israel lies in a transition zone between the hot and arid southern part of West Asia and the relatively cooler weather of the northern Mediterranean region. The country's fertile land resources are very limjted. Two thirds of its territory is classified as hyper-dry and arid areas, with 57 percent of the territory covered by the Negev and Arava Valley Deserts.
Due to this the country is characterized by scarcity of natural water resources and faces various challenges regarding water supply. Despite a crisis of water scarcity, implementation of centralized programs has allowed Israel to achieve water security. This has been achieved through a massive increase in the production of non-conventional water sources and a legal framework that asserts strong governmental control over water resources and boosts public awareness about water conservation. Nevertheless, rapid urbanization, intensive agriculture, polluting industries, and extensive afforestation's accelerate the phenomena of desertification and threaten the desert ecosystems and new sources of water are needed. This gold medal winning project reaches beyond: Where do we get more water and how can we manage with less?
UN/ARIDSCAPE suggests 10 different typologies of water intervention like flood control dam, grey water treatment systems, swale systems, septic tanks, purification ponds, etc. There are several examples of how to create new agricultural fields and oasis in the desert areas by implementing different systems. The virtue of the project is that the results are not only suitable for Israel but can easily be adapted to other regions in the world that lack water.

Silver Medal

__Belgrade - An exaptation project as a response to climate change

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Anno Accademico
2019/2020

In June 1988 The New York Times published an article entitled “Global Warming Has Begun, Expert Tells Senate". For the first time in the world there were talks of global warming in a newspaper and for the first time scientists met with the United States Senate to talk about the problem of climate change. The testimony was brought to the Senate by James Hansen, an American astrophysicist and climatologist, who showed his studies on three possible future scenarios predicting that temperatures would increase in the period between 1988-2017 by 0,8 degrees. Today, it is clear that Hansen’s predictions were true. The entire planet is facing the consequences of climate changes.
This silver medal awarded project tries to give new answers to different types of floodings both on an urban and architectural scale, through design experimentations of exaptation. The proposed design strategies involve a former industrial area in the dock north of the Sava River. The design strategy aims at the creation of a bioswale, a green/blue infrastructure designed to concentrate and transport water. The system is mainly based on 4 phases: a first phase of RESISTANCE to flooding along the river, a DELAY phase through rolling tanks, a phase in which rainwater and flooding is STORED in the bioswale, and a final phase of RELEASE.
The project aims at generating new life between nature and man on the riverfront, able to counteract floodings and to re-establish a relationship with the natural cycles of river and terrestrial biodiversity through 24 different park programs, realized in four phases.

Honorable Mention

__Wild Commons in Rome
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This project offers strategies to create wild commons in Rome, a city that has over time had several different nicknames, including l'Urbe (the city), caput mundi (the capital of the world), and today la Città Eterna (the eternal city). Nicknames that more than abundantly suggest that it is a city that can only be changed with difficulty.
The strategies for the areas of Borghetto Strenetino and Pianoro della Capre are divided into four phases of six months each: 0. Legal and administrative initiation, 1. Spatial initiation, 2. Social initiation, and 3. process initiation. A total of 24 months. The project offers interesting and surprising bids for interventions in a city that is the cultural heritage of all nations in the world.

SUSTAINABLE INDUSTRIAL DESIGN

Honorable Mention

__La compatibilità paesaggistica degli insediamenti produttivi. Strategie di mitigazione degli impatti per l'agroalimentare in Emilia-Romagna
TOOLKIT- landscape compatibility of factories

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The aim of the project is to mitigate the impact of factories on the landscape and to improve the corporate image and competitiveness of the company.
The study developed a toolkit that combines the three landscape dimensions (social impacts, environmental impacts, perceptual and aesthetic impacts) with an integrated assessment and design approach. As a result, two main tools have emerged:
Tool 1 is a rating system to measure impacts by integrating the LEED protocol. LEED certification was developed by the US Greeen Building Council and provides a framework for the design, construction, operation and performance of green buildings.
Tool 2 is a collection of best practices that includes a catalogue of design tactics to structure and visually represent operations and project phases.
The TOOLKIT is an excellent demonstration of how it can be made available to planners, decision-makers, authorities and investors and can be used as an iterative process in addressing complex and multi-faceted issues and requirements.
The study contains a collection of best practices and many case studies covering all assessment categories and general tactics.
An example of the use of the TOOLKIT shows the sequences of the different scenarios. The application of such a case study in different phases and stages is presented and evaluated using the example of the leading agri-food company Orogel, based in Cesena, Italy.

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La Giuria

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