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iCAD
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GREEN

CREATIVE

COLONICA

IN THE **M**ETAVEVERSE

COURSE **O**VERVIEW



iCAD International Course on Architectural Design Master Degree Course
B018894 – Architecture and Environment Lab Class | 18 CFU

Rural Tuscan architecture embodied the qualities outlined by Giuseppe Terragni and his colleagues in the Rational Manifesto of 1926 – it was pure, simple and logical, but above all it was flexible.

A. Lensi, 'Razionalismo nelle vecchie costruzioni', in *L'illustrazione toscana*, Jan 1934, 26-28

The loggia, portico, and cortile of the rural house represented the honest naked communication between man and the countryside.

B. Sanminiatielli, 'Case Coloniche in Toscana', in *Civiltà*, Jan, 1942, p.85)

D. Medina Lasansky *Hidden Histories. The alternative Guide to Florence+Tuscany*, Dida Press, Firenze, 2018

https://issuu.com/dida-unifi/docs/lasansky_web

KEY WORDS



Ottone Rosai, Paesaggio, 1935
Grande tempera inside the railway station of Santa Maria Novella in Florence

COLONICA Presenting the photographic exhibition «Italian Rural Architecture», held in 1936 at the Milan Triennale, the curator arch. Giuseppe Pagano wrote of the importance of the 'casa colonica' (the farmhouse) for an education in aesthetics, functionality and compositional clarity of architecture. This exhibition represented the most evident moment of a current in the rising Italian Rationalism which saw in Italian vernacular architecture the very essence of avant-gard design as well as the clearest example of the synthesis of three factors determining architecture: climate, economy, and culture (Antonio La Stella, 'Rural architecture', in Cesare deSeta ed., *Giuseppe Terragni Photographer*, Einaudi Milano 1972, pg 16).

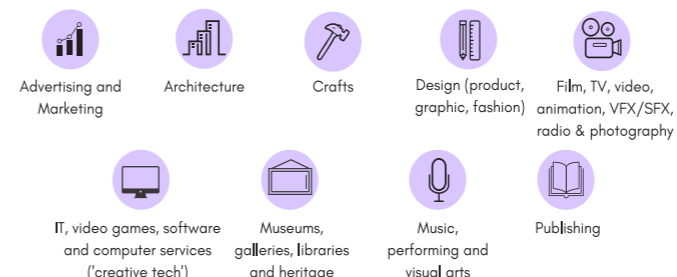
The Tuscan farmhouse was born in the Medieval and Renaissance period to accommodate the workers involved in working the land and then developed in the 1700s with the agrarian reforms during the Granducato di Toscana. With the migration of the owners to the city these buildings remained in use by the peasants, in exchange for labor who added more and more rooms around the already extant buildings. Thanks to the durability of the materials and the recent restoration works carried out after the 1970s, these buildings now constitute an important heritage that is intimately integrated with the landscape, highly contributing to the identity of the Tuscan landscape.

The Tuscan farmhouse was born in the Medieval and Renaissance period to accommodate

The UK's Creative Industries



WHAT ARE THE CREATIVE INDUSTRIES?



CREATIVE INDUSTRIES

The Creative Industries refers to a range of economic activities which are concerned with the generation or exploitation of knowledge and information. Especially in Europe, they can include and/or overlap cultural industries. Most recently they have been denominated as the Orange Economy in Latin America and the Caribbean. According to the UK Government Department for Culture, Media and Sport (DCMS) Creative Industry can be defined as "industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property" (DCMS 2001, 4)

As of 2015 the DCMS definition recognizes nine creative sectors as shown in the figure of the previous page. It has also been argued that gastronomy and education industry, including public and private services, belongs in such a list. In addition, several fields of engineers can be regarded as highly creative, inventive and innovative because their contribution in creation of new products, processes and services. The Creative Industries is an emerging concept dealing with the interface between creativity, culture, economics and technology in a contemporary world dominated by images, sounds, texts and symbols. For these reasons and increasingly, Creative Industries is being replaced by the term 'Creative and Digital Industries' because of the importance of digital content and online services within these sectors and recognized as one of the fastest growing industries in the world economy providing new opportunities for socio-cultural and economic development. Today, the Creative Industries has been included in the agenda of important international organizations such as UNESCO (United Nations Educational, Scientific and Cultural Organisation) and UNCTAD (United Nations Conference on Trade and Development) who are promoting international actions in the crossroads of the arts, culture, business and technology.





The Cultural Industries are defined by UNESCO as ‘industries that combine the creation, production and commercialisation of contents which are intangible and cultural in nature; these contents are typically protected by copyright and they can take the form of a good or a service.’



GREEN Green is no longer just a color, but also a term used to refer to anything that benefits the environment. It is a color that labels a worldview and a behavior of using in a responsible way natural resources and preserving them for future generation. Currently Green is considered just one aspect of Sustainability which, in addition to natural resources preservation, also concerns for social equity and economic development. Although these two additional aspects represent an important goal of the design, in this case it is our intention to focus, above all, on the relationship of the built with the natural environment and human health.

With this attribute and in a broader way, the interest is aimed at the ways in which forms and materials of the buildings integrate with the surrounding landscape and how the landscape must necessarily represent an essential element of the architectural design which brings a sense

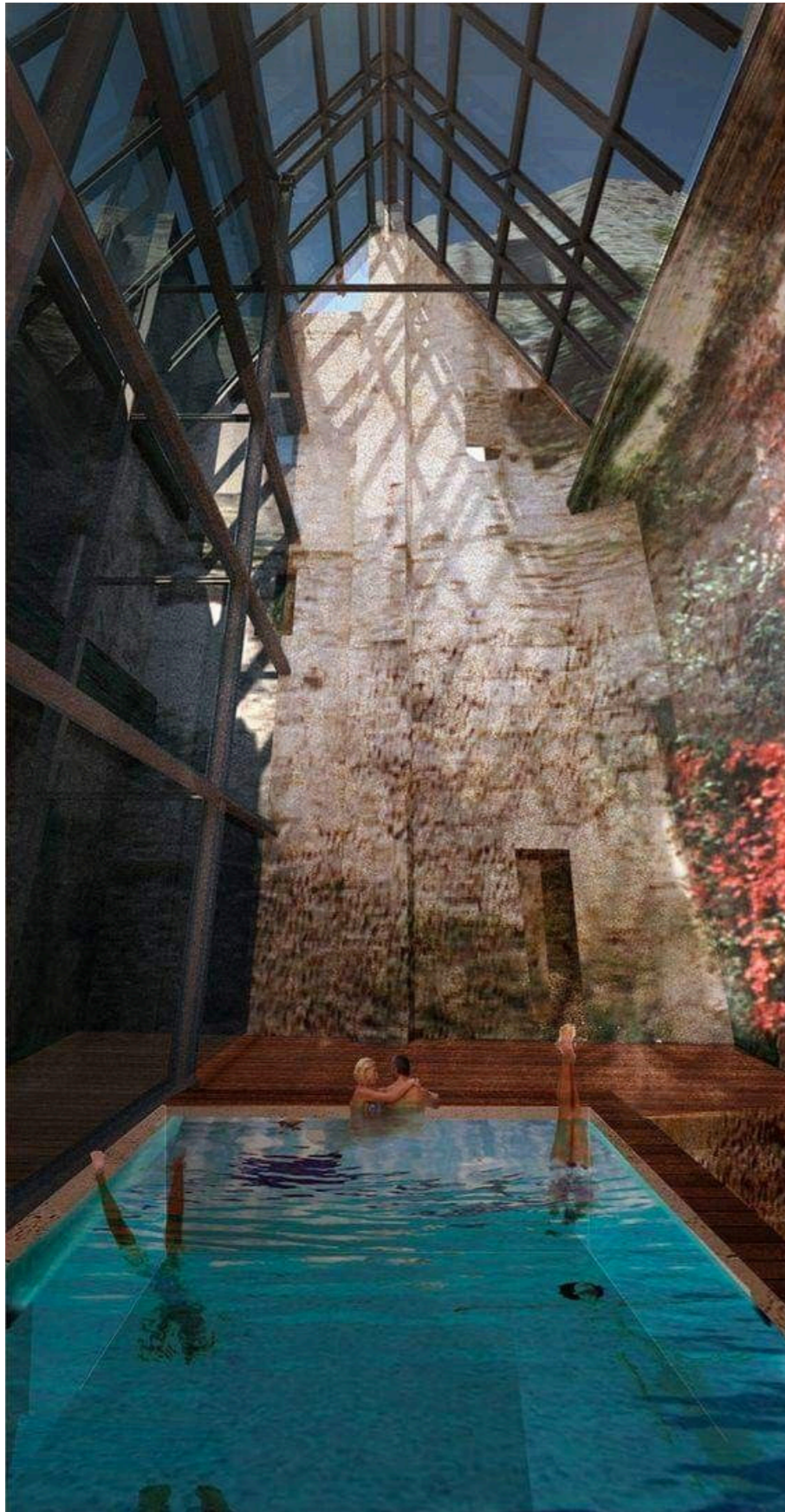
of hope, health, adventure, and renewal, as well as self-control, compassion, and harmony. Green, therefore, wants to lead to the pursuit of a sense of balance, integration and harmony between the built and natural environment, recognizing how climatic agents, nature of the materials, colors and atmospheres of the place must be considered as decisive agents of design as well as how those elements are directly connected to the needs of humanity in carrying out their own activities and living.



METAVERSE The term metaverse was coined by Neal Stephenson in 1992 in his science fiction novel *Snow Crash* to describe a virtual reality-based successor to the internet where humans, as programmable avatars, interact with each other and software agents, in a three-dimensional virtual space. Therefore, Metaverse can be described as metaphor of the real world, a virtual infrastructure available to build a parallel life. The first realization of this metaphor was *Second Life*, a multimedia platform created and owned by Linden Lab based in San Francisco in 2003, where users can have a second life and interact with places, objects, and people as avatars. After a big deal of media attention *Second Life* slowly declined even if more than one million of users are still using this platform. Other contribution to the Metaverse came from

videogames such as *Minecraft*, *Roblox*, *Active Worlds*, *Te Palace*, and *Fortnite* implementing massive technologies for multiplayer online games and offering immersive experiences in a virtual world generated by the active contribution of users. Recently the Metaverse revamped thanks to the initiative of Mark Zuckerberg, founder and CEO of Facebook who, on October 28, 2021, changed the name of his company in Metaverse and planning huge investments and big developments for the future.

In our case Metaverse represents the occasion to build a virtual environment where projects can be conceived and designed. It means that, first and in harmony with the project, the site must be designed, modeling and characterizing it according to the patterns and perceived qualities of the landscape of the Tuscan countryside. This means the overturning of the traditional approach to the architectural design where the current practice of analyzing the intervention site to, compatibly, place buildings will require, the study and understanding of the connective traits of the Tuscan landscape in order to generate a similar virtual metaphor that will accommodate your buildings.



DESIGN THEME

Project purposes

The design theme of the course is an extension of an existing 'casa colonica' intended to accommodate activities belonging to the Creative Industries sector.

The choice between the different possible functional destinations is free and the integration of different functions of the sector is also allowed. In addition to the primary 'productive' and functional service activities, supplementary and complementary activities are also required such as: accommodation (private and / or collective), socialization, eating meals, communication with the public (exhibition rooms and / or conferences), private study and meetings, relaxation and recreation, personal care and well-being. All spaces must be conceived as indoor places in continuity with external spaces to enjoy the surrounding landscape.

Project tasks

The project will have to be carried out covering the following tasks:

- analysis of the hilly agricultural landscape of Tuscany and generation through terraforming process of a hilly intervention site informed of the patterns and characteristics previously detected;
- choice of an existing farmhouse among those made available (see next page) or freely chosen from other sources;
- preliminary modeling of the selected farmhouse in BIM technology and placing it on the generated terrain;
- study of the activities and spaces relating to the selected functions and analysis of case studies in order to define the building program, preliminary project objectives and architectural references;
- analysis of the climatic characteristics and the environmental determinants acting on the project;
- development of alternative design schemes to be selected also on the basis of energy-environmental assessments, and observing volumetric and other architectural constraints that will be established in class;
- definition of the project with functional and distributive schemes and scaled drawings, extracted from the BIM model, useful for evaluating architectural and used materials qualities, and the environmental integration as well;
- technological study aimed at illustrating the active and passive architectural devices designed to guarantee a mainly passive behavior of the building;
- computational modeling to validate the energy behavior of the building, the quality of lighting and natural ventilation;
- realization of scale models.

Methodology & Evaluation

The course integrates three different disciplinary modules and takes place by alternating lessons, intermediate credits and periodic reviews.

Lectures and design activities will be held favoring the presence in the classroom but for motivated reasons accepted by the professors they can also be carried out remotely. In any case, attendance is required and punctuality is a requirement to be observed with respect to colleagues and professors. A 15% of absences on the total number of lessons will result in failing the course.

All the required materials will be made available during the lessons and accessible on-line.

The development of the project must be carried out in groups of no more than three components that the students will take care to communicate at the beginning of the course. The composition of the groups, except for admissible reasons recognized by the professors, cannot be changed.

The final evaluation will be carried out jointly as an average of the three teaching modules.



Available farmhouses to be modeled and used as an existing building to be redeveloped and extended

