



Multi-family settlement in the northern side of Potenza Italy

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The study is based on considerations related to the experiences, ideas and tools already investigated by researchers and designers of the seventies. The proposed project, reworks them in a modern, albeit with many references to the shape and functions of architecture carved out of the past (such as the underground structures of Matmata in Tunisia, Libya Gharyan, but also the cone-cities of Cappadocia in Turkey and the artificial cavities of the perfect ecosystem of Matera in Italy).

The semi-underground building type, the morphology of the building, the size of the building, the layout of the rooms and the operation in the bioclimatic have strongly guided the choice of the construction system of the building. The architectural object, is fully closed against the ground to the north-side and on the roof with a roof garden, (to exploit the thermal mass of the ground) but instead opens almost entirely to the south-side to obtain a high gain energy produced by solar irradiation.

The semi-underground building project, while applying bioclimatic "classic" techniques as the solar greenhouse (with external sun protection), passive ventilation (with underground channels that act as geothermal heat exchangers) and a review of the Barra-Costantini system (for preheated air distribution), offers a new interpretation of form, an aesthetic approach new and opposite: the convex volume of the solar greenhouse is reflective, modern and technological opposed to the , concave, opaque, archaic vernacular surface made with a ventilated stone wall.

The formal aspect of the building so generated is made differently depending on its exposure in a mixed type of turn and natural shelter. The difference between the two bodies is the "skin". It creates the architectural interface that is perceived as either plastic wrap and protective curtain rocky. The intersection try to patch up the balance disrupted by the initial volumetric displacement, creating new spaces for the resident. From a stand point of energy conservation, the solar green house with transparent facade of the first volume sets the contemporary and the past is described by the second volume.