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Exploring Modernity beyond boundaries

Foreword by Cristina Donati

Renato Severino's work spans decades of pivotal changes in architecture that have seen the rise, twist and fall of Modernism. He has witnessed the establishment of the Modern Movement, its revisited blueprint by the International Style, its critical revision by the Post-Modern paradigm and its ultimate reassessment by the sustainable culture of the Third Millennium.
However, it is not just the historical setting and its significant time frame – from the middle to the end of the 20th century – but it is the geo-political and multicultural context of Severino's work that make its contribution quite unique. Even more so, coming from an Italian architect, who was born in Cagliari and graduated in Florence. Hardly any architects from similar backgrounds have built internationally as he did.
Building in the Western Hemisphere is therefore more than a catchy title and the book is more than a glossy monograph. Severino writes his own professional autobiography and turns his architecture into a storytelling of memories and anecdotes that subtly reveal the development of a period of great changes. A beautiful journey where life and work mix with authenticity and defiance. Masters such as Oscar Niemeyer, Adalberto Libera and Pier Luigi Nervi are part of his career as mentors, business partners, and friends. Severino tells the tale of his projects, their fortunes and misfortunes, with honest and forthright intentions, dodging any pretentious critical superimposition. He is upfront and unequivocal as a practitioner who has always been an independent front runner and who managed his office more as an 'Italian studio' than a 'business firm', in order to have the freedom to select his commissions without having to compromise his design principles.

He practised Modernity worldwide but always sought the correct balance between philosophy and context, between an overarching idea and a hands-on approach. As a result, each building has a recognizable identity, thanks to a placemaking and site-specific design that aims to cultivate a social or technological upgrade.
On graduating from architecture school, he cut his teeth on two housing projects in Rome and Cagliari commissioned by his family. They were slotted into a tight site in the speculative fashion of the time but show a promising control of their urban interface delivered in clearly ordered façades. He was only 28 years old when he won the Italsider International competition, which had Bruno Zevi and Ernesto Rogers as members of the Jury. The Italsider children's resort stands out as a masterpiece that pays tribute to the Modern Movement while introducing new technologies that allow for a lighter and more fluid sense of space. To this end, each floor is conceived as an open plan divided by glass partitions that let natural light filter thorough the building. Centrally placed, an imposing cylindrical core hosts services, lifts and stairs, integrating architecture and technology. The innovative approach is evident in the effort to apply the rules of European Modernism to a lightweight type of construction rooted in Mies Van Der Rohe's American legacy. More to the point, Severino's interest in steel technology began in the US when he was granted a scholarship to study there, and afterwards, during his first work experience at the office of Nervi in Rome. Coincidentally, Italsider was one of Europe's largest steel producers; it is therefore no surprise that the skeleton of the building was to be made entirely in steel. In the early '60s, steel construction was a rather ubiquitous way of building in Italy and as Severino recalls «although it was the winning bid, the project was initially received with a mix of surprise and doubts by the local Establishment». Despite these mixed feelings at the start, once built, the project was acclaimed as a considerable success that deserved to be featured in the prestigious *Lotus Architectural Annual 1963*.
The '60s marked the beginning of Severino's fully-fledged career with an office in Rome large enough to deal with his first urban-scale projects in West Africa. Quite coherently, the architecture acknowledged the language of Modernity without compromising with the more conservative African

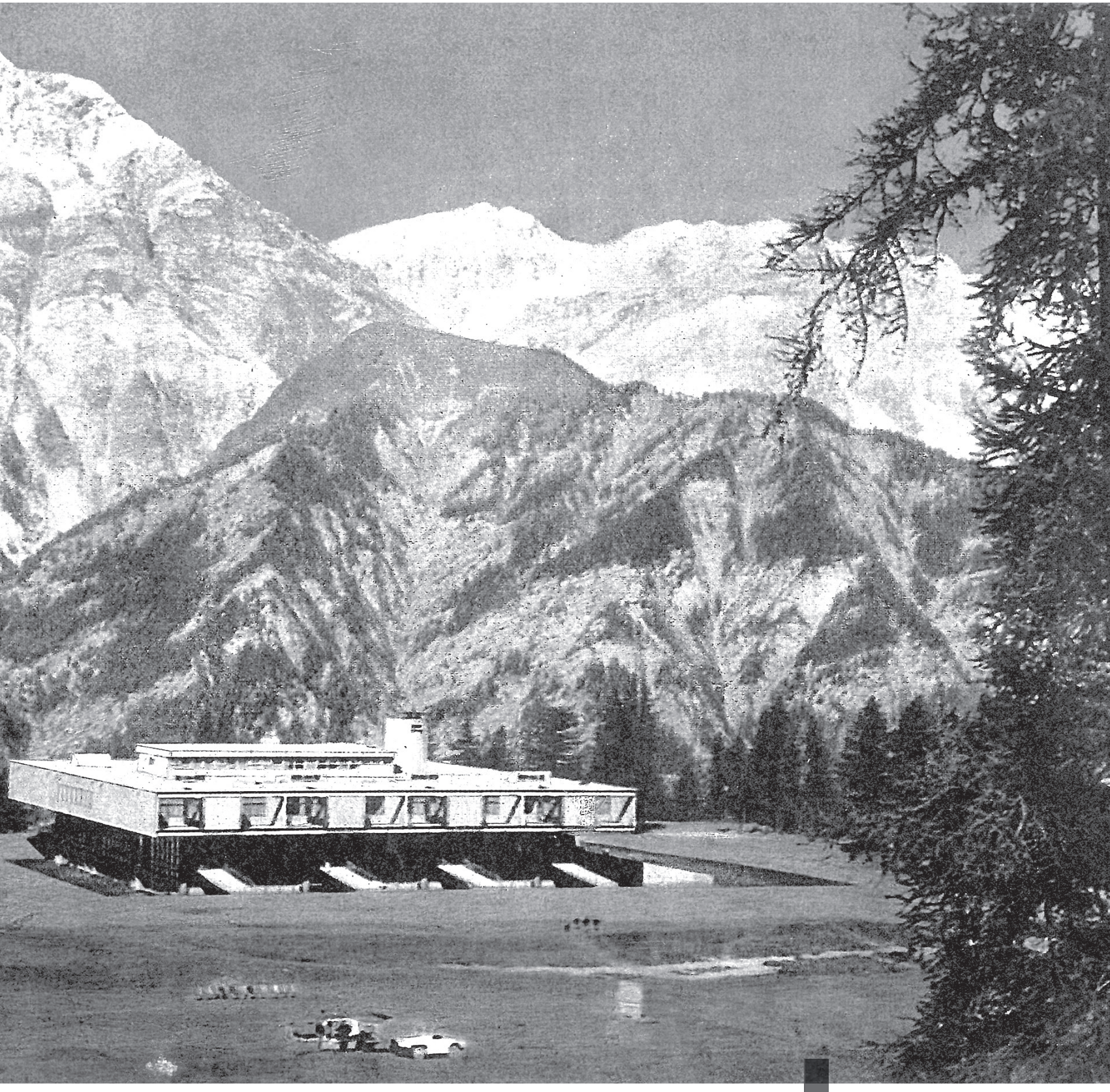
style. In doing so, Severino faced the issue of technology in the developing world, and in an essay on this topic, he stated: «The dilemma arises from the wish to defend tradition while enjoying all the advantages of progress. [...] It is obvious that the most difficult task will be that of preserving the cultural traditions of these countries which must in no way be lost in the homogenizing process. It is also clear, however, that a true and valid culture is international because it is composed of contributions originating from every part of the world».
Severino's interest in technology is embedded in his design, with two significant objectives of research: the industrialization of the construction process and the implementation of environmental and energy-saving strategies. Although this was only in the early sixties, both university campuses in Ghana are designed to minimize mechanical cooling systems thanks to natural ventilation, thermal mass, sun shades and other passive solar technologies.
The aim of a sustainable industrialized process was a constant of the research conducted in his Latin American projects during the seventies. A case in point was the large housing development in Tepalcates, based on the design of a number of standardized components that adopted an on-site prefabrication system that maximized labour time and safety while challenging to stretch innovation further in Mexico through the closest possible integration between architecture and engineering.
The power of mass production and its socio-economic and cultural implications were investigated in a successful book of the time by Renato Severino, titled *Equipotential Space. Freedom in Architecture*, which fully described the possibility of aggregations between *Frame Components* and *Function Objects* to generate large and small residential units.
This extensive research found its way into various international competitions, such as the Roosevelt Island Housing in New York (1975), which was later built but, regrettably, without fulfilling the brief's potential innovations.
Through the '70s and late 80's, Severino worked in the US, devoting his design interests to a holistic view of architecture, capable of smoothing out the conflicts between theory and practice. A clear example was the design of his own house in Connecticut, which derived its form and poetic of space from

environmental and energy concerns.
He was also involved in public and private projects, such as three significant Corporate Headquarters in New York State. Their advanced technology was matched with a desire to make sense of twentieth-century trends, from High-Tech to Postmodern and Deconstructivism, which Severino labels the «three types of excess typical of our society deriving from the incapacity to find the right balance between technology and form through a stable artistic synthesis».
The desire to strike a balance between innovation and tradition is apparent in the fluidity of the volumes that reject the 'rigour' of Early Modernism. This freedom of forms and volumes is a mature achievement that Severino continues to investigate in his visionary architecture paintings. His beautiful large-size drawings of the nineties convey a knowledge of construction and an inventiveness of form that have a timeless quality.
In his book *Meta-Realism*, Severino advocates an architecture free from imposed rules and symbols, one that has freed itself from the constraints of an artificial language. This is not Utopia but a complexity that draws its meaning from a creative form-making that has reconciled the built and the natural environment. More to the point, Severino states: «The Modern Movement leaned towards economy, due to the schematic nature of its solutions. However, a certain number of architects belonging to this Movement succeeded in creating notable work that, while remaining within the limits of Modernism, were of more complex origin based on a concept of three-dimensional biomorphic inspiration».
This incitement towards freedom of expression is today slowly becoming a reality, helped by the latest BIM technology and 3D modeling, which help explore the limits of analytic geometry. Severino's architecture and, most importantly, his research into new urban configurations make him an architect ahead of his time, who has envisaged many ongoing and future concerns. His built and unbuilt works must be recognized as the achievements of a visionary architect who has designed and managed his projects with originality and authenticity. His work and his vision of the future enrich the history of architecture with yet another protagonist who has challenged Modernism beyond the boundaries of its time.

ITALSIDER CHILDREN'S RESORT AND SCHOOL

Cesana Torinese, Italy
1960-1963

This project was built as it was designed to be submitted to the National Competition called in 1959 by FINSIDER S.p.A., later ITALSIDER. The design won two stages contest. Bruno Zevi and Ernesto Rogers were members of the Jury. As reported in *Lotus Architectural Annual 1963* «Renato Severino had to reassure a number of well-known professionals in the architectural field that the building he had designed was not the product of a deranged mind. Therefore ITALSIDER S.p.A. has to be congratulated for having taken the responsibility of constructing this building, as it was originally designed by Severino and achieving a great success from all points of view. Evidently this building presents a new type of construction methodology derived from a new spatial and technological conception in a demanding physical environment, typical of the Italian Alps. Being able to construct successfully this building as it was initially



View from south-west towards Mount Chaberton, in French Alps

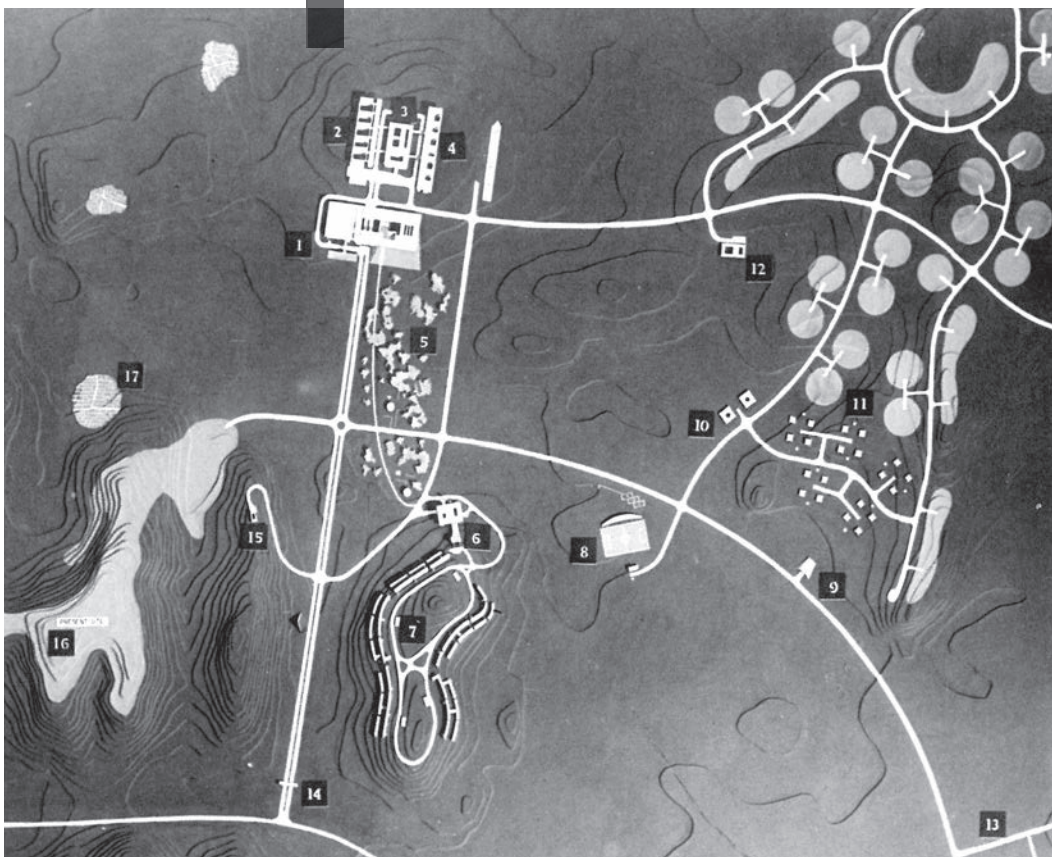
conceived, beyond the realization of 'his own principles', for the designer this project was to translate a dream that he had into the language of a proper technology».
The building, a resort school for 250 children, is occupied by successive groups of children of the company's employees. It is a compact three-storey structure of great depth in relation to its height with an exciting interior space, open on all sides, overlooking a magnificent landscape. Kitchen, infirmary, supervisors' rooms and administration are at ground level; so is the gymnastics hall which extends into the main floor. On the latter are the lounges, dining rooms, hobby and play rooms. The dormitories are on the top floor.
In front of the top floor dormitories are roofless loggias. The roof of the penthouse, where the teaching staff are accommodated, can be glimpsed by the side of the staircase tower. At each level, the internal continuous space is divided only by glass partitions and curtains. The cylindrical core contains utilities and elevators.
Various interesting technological solutions were adopted in order to accomplish an architectural design derived from environmental and climatic factors. It is an example of an 'open system' design based on product performance.
It was built for ITALSIDER, one of Europe's largest steel producers, in a Piedmont location near Turin. At the request of this great Italian steel combine, the building structure was constructed exclusively in steel.
In the early 60's Italian architecture had a very limited experience in the field of new steel construction. Therefore the ITALSIDER building was initially received by the Italian field of architecture with a mix of surprise and doubts of all sorts. In fact, I had achieved a good experience in the design of steel construction while working in US when I was studying there with a scholarship and, afterwards while working in P.L. Nervi's office in Rome.

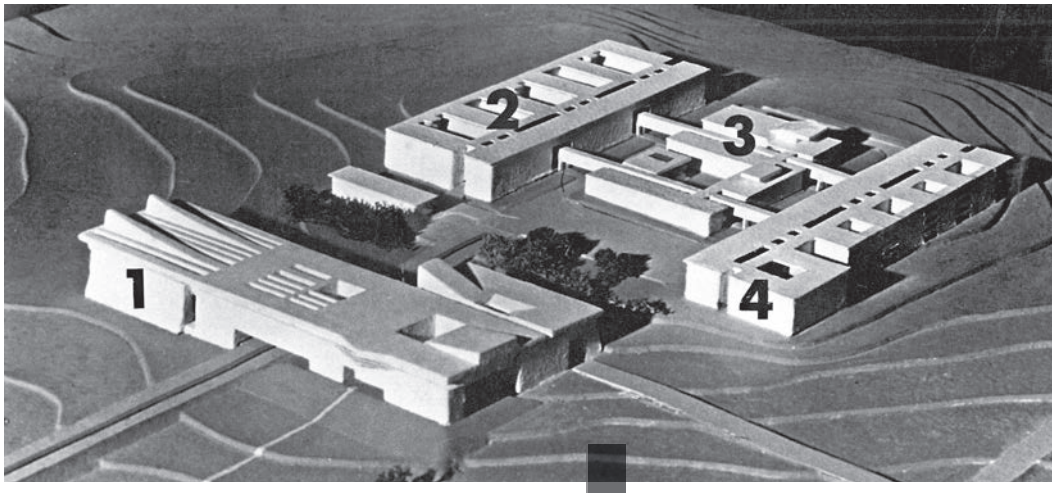
UNIVERSITY OF CAPE COAST

Cape Coast, Ghana
1964-1968

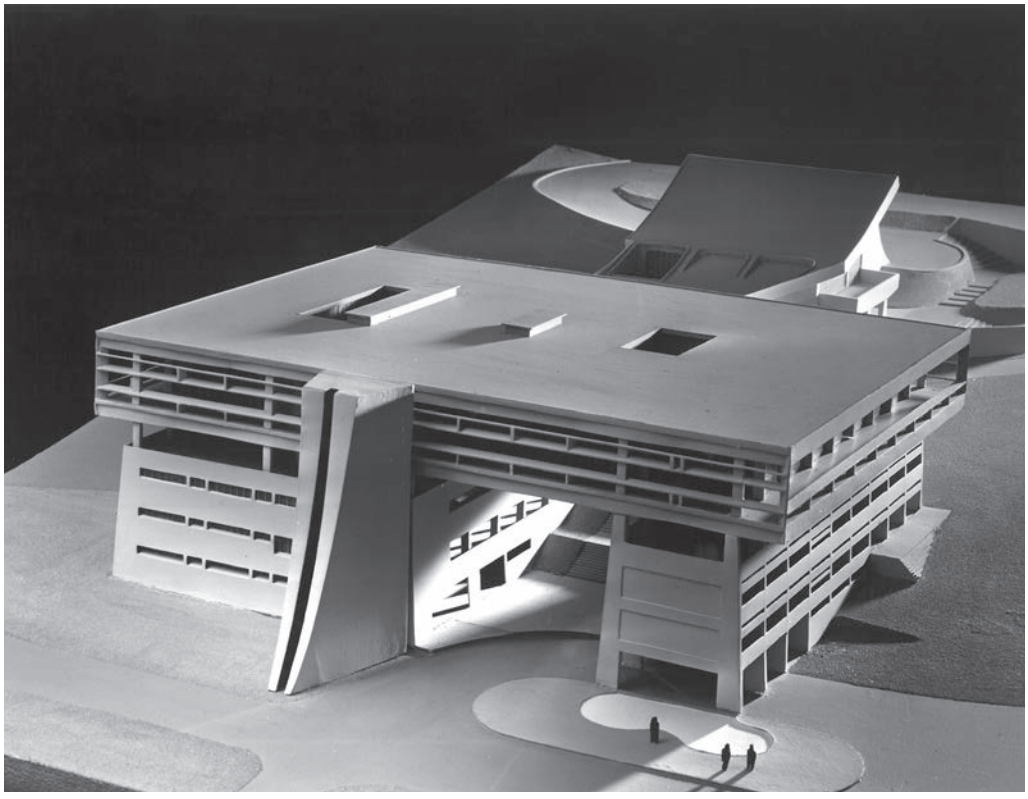
After the successful reception of the University of Ghana buildings in 1964, the local Government awarded to me a larger and even more demanding project: the design of Cape Coast University.
The campus of this University had to be designed and built from scratch on a large terrain situated at the limits of the Atlantic Coast.
From that time on, my visits to Ghana increased to a monthly rhythm. I then opened two new offices: one in Accra and a larger one in the Cape Coast area, while hiring twenty people either coming from Rome or locally. Therefore the basic campus design was developed in my Rome office were we produced drawings, specifications and models of all buildings. At the same time, the construction started with the road system and a number of buildings employing several local construction companies and a few others coming from Europe. Therefore the construction of the road system and of a number of buildings, part of the first phase, took only two years to be completed before the campus started functioning with the arrival of several thousand students and hundreds of teachers and maintenance workers.
The success of the Cape Coast University, internationally published and visited by many scholars and politicians from Europe and the United States brought me a large international recognition. In fact in the late Sixties I was invited to many international events and to a major Conference in US to describe this project in details.

1. Cultural Center
2. Faculty of Science
3. Teaching areas-classrooms
4. Faculty of Arts
5. Gardens
6. Social Center
7. Dormitories
8. Sport fields
9-14. Teachers housing
15. President house
16. Local village

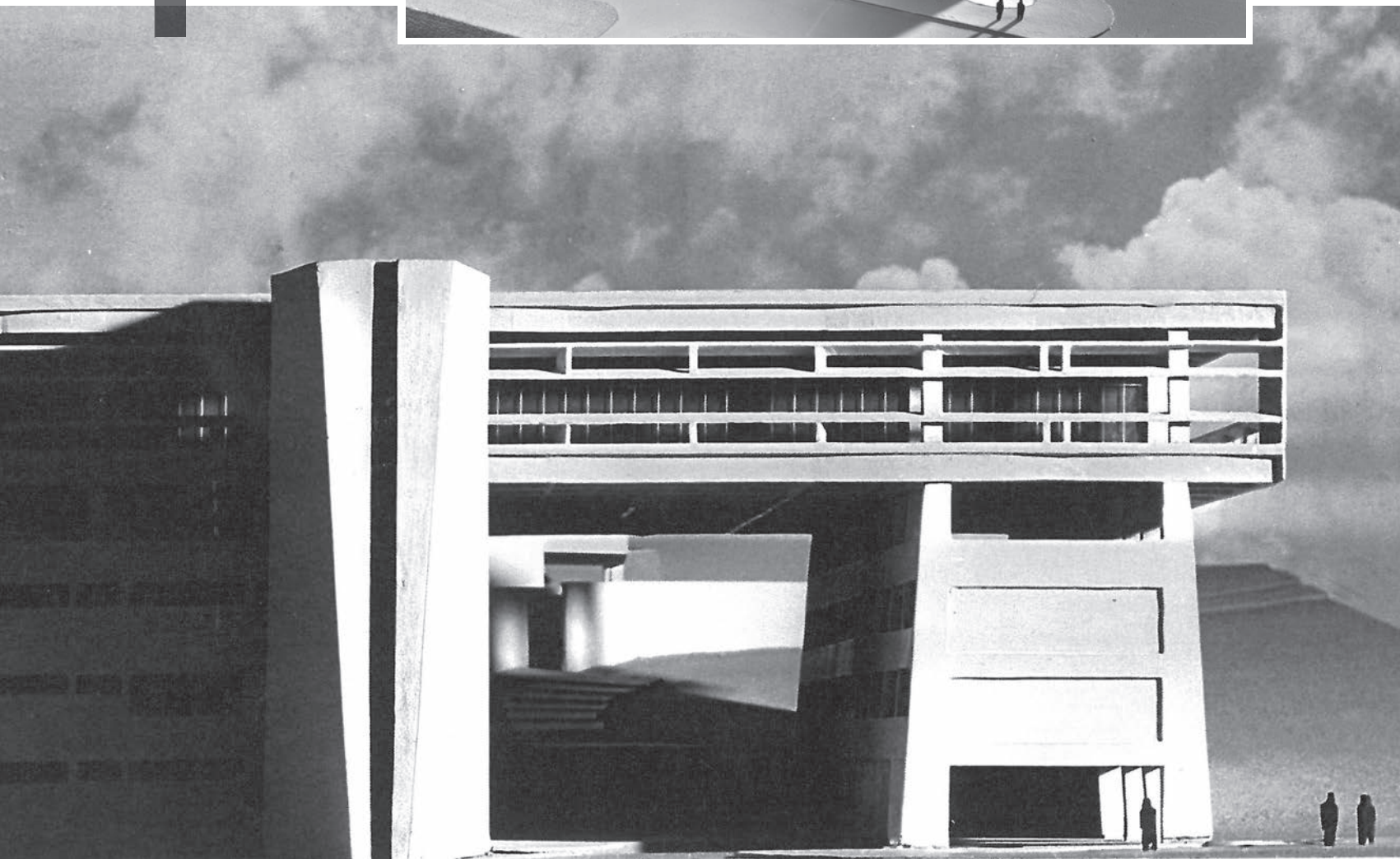


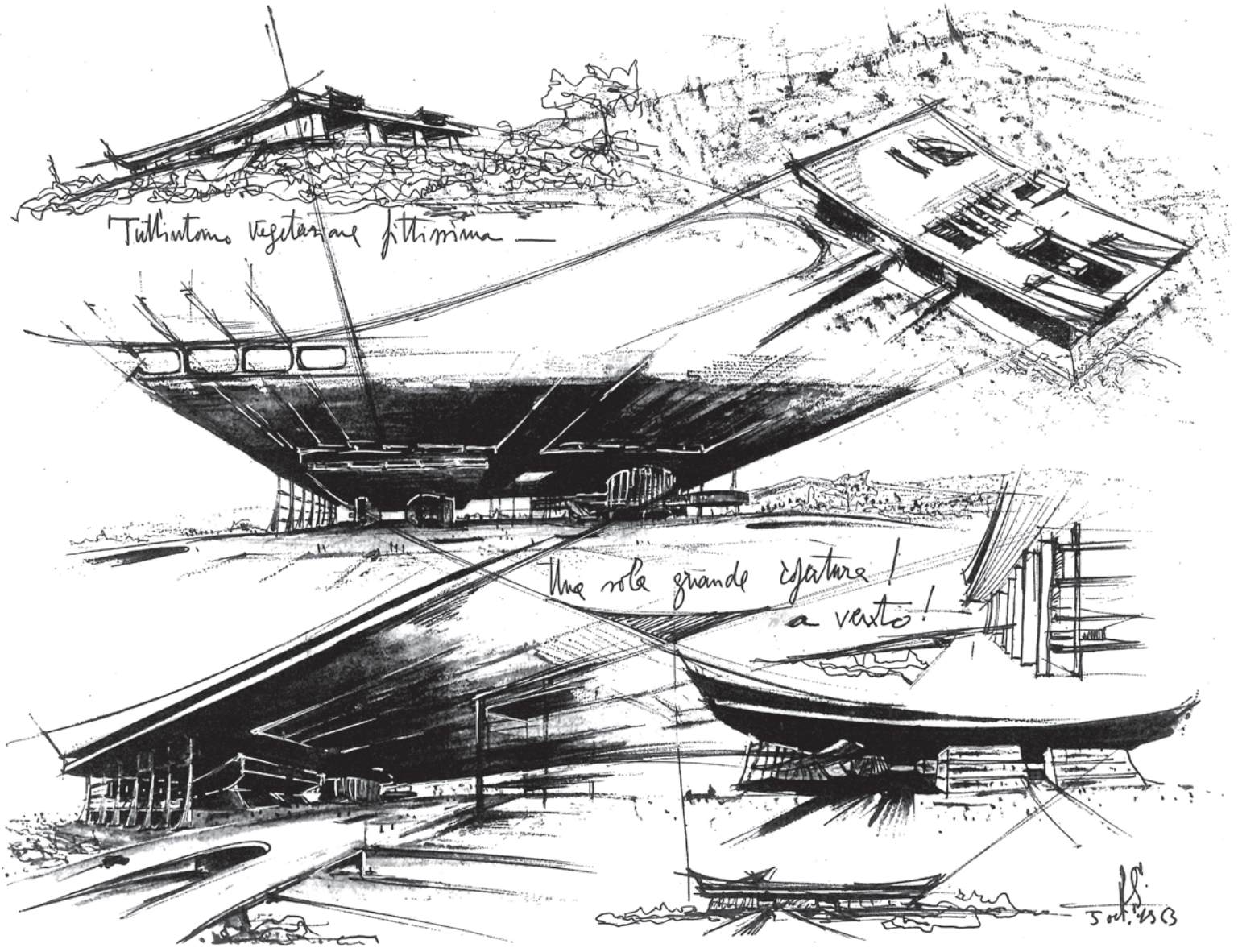


1. Cultural Center
2. Faculty of Science
3-4. Teaching area

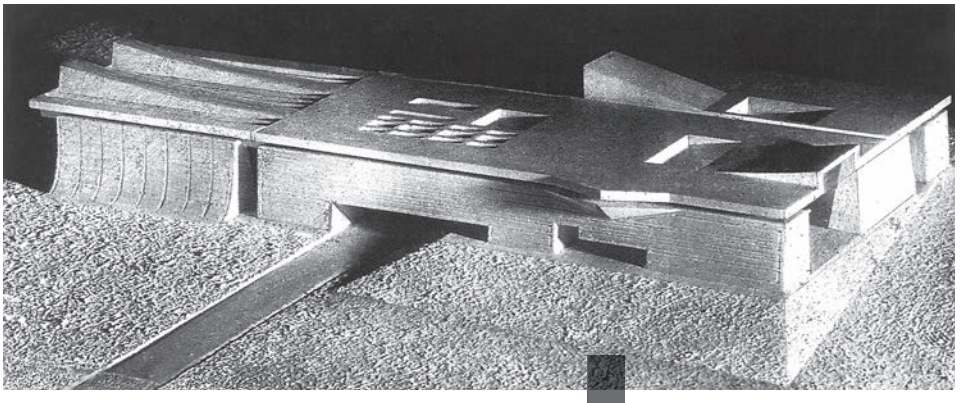


The Social Center, that was built in two stages





the diminishing roof section. The rapidly moving air, in turn causes a great deal of air movement throughout the entire building. The building includes a large theatre with 2,500 seats, and the administration offices for the college, a library and an audio-visual department.
This building unfortunately was not built due to limited funds awarded to the University by the Ghana Government.



Cultural Center, sketch and model

SEVERINO HOUSE

Greenwich, Connecticut
1978-1979

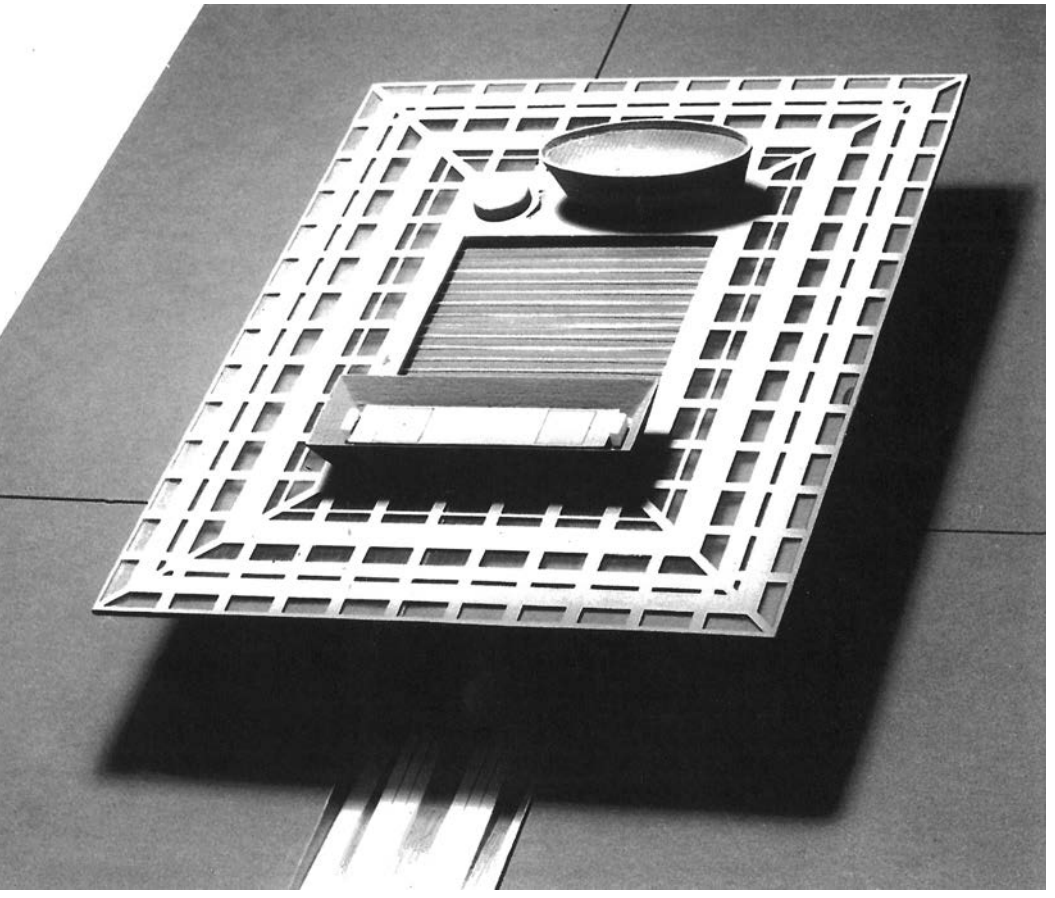
When in 1978 I decided to build an ecological house on a site of quality land in Greenwich, Connecticut, I found that I was completely misunderstood by many of my friends and neighbours.
They thought I was mainly building a strange house capable of economizing the energy used by my heating and cooling systems.
Then, global warming was not yet considered a threat by most Americans.
But fortunately my 'different' house, when built, was mostly hidden by the big trees of my lot, while its interiors, as seen by my neighbours were appreciated being very similar to a typical American home of quality.
My efforts to contribute to ecological research fortunately received the attention of the international press.
In fact the house was extensively published with many photos by US, Italian, German, UK and Japanese architectural magazines.

Partial south elevation of the house showing solar heating water panels and mirrors to deflect sun rays intothe windows during winter

The balcony of the living room over the ground floor study. The skylight over the intermediate landing of the staircase

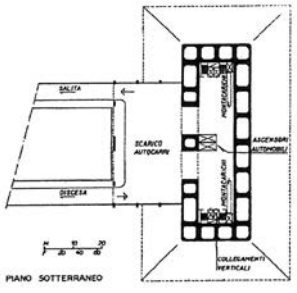
HORIZONTAL APARTMENT UNIT

1959

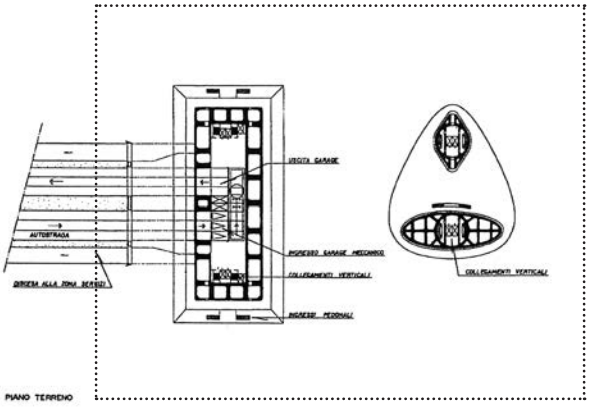


A research project for a new concept of high quality apartment building was carried out in 1959 as an attempt to solve the age-old concern with spatial continuity at ground level. The research gained international visibility and was featured in *L'Architettura* of Bruno Zevi: «A young architect, who has worked in P.L. Nervi's firm, has designed this original structure containing 125 apartments. The block rests upon vertical elements which include stairways, elevators and a 200-car garage. The center area of the suspended block contains the collective services. Each apartment has two separate corridors, one for services and one for the occupants, as well as an automatic system for horizontal transport. The block can house from 800 to 1,200 persons»[1].
The platform, elevated above ground, rests on structural cores in which garages and other facilities are arranged. Each apartment has windows looking out or down to the ground and into its own courtyard. The access road to the building goes underground to maintain the continuity of the terrain.

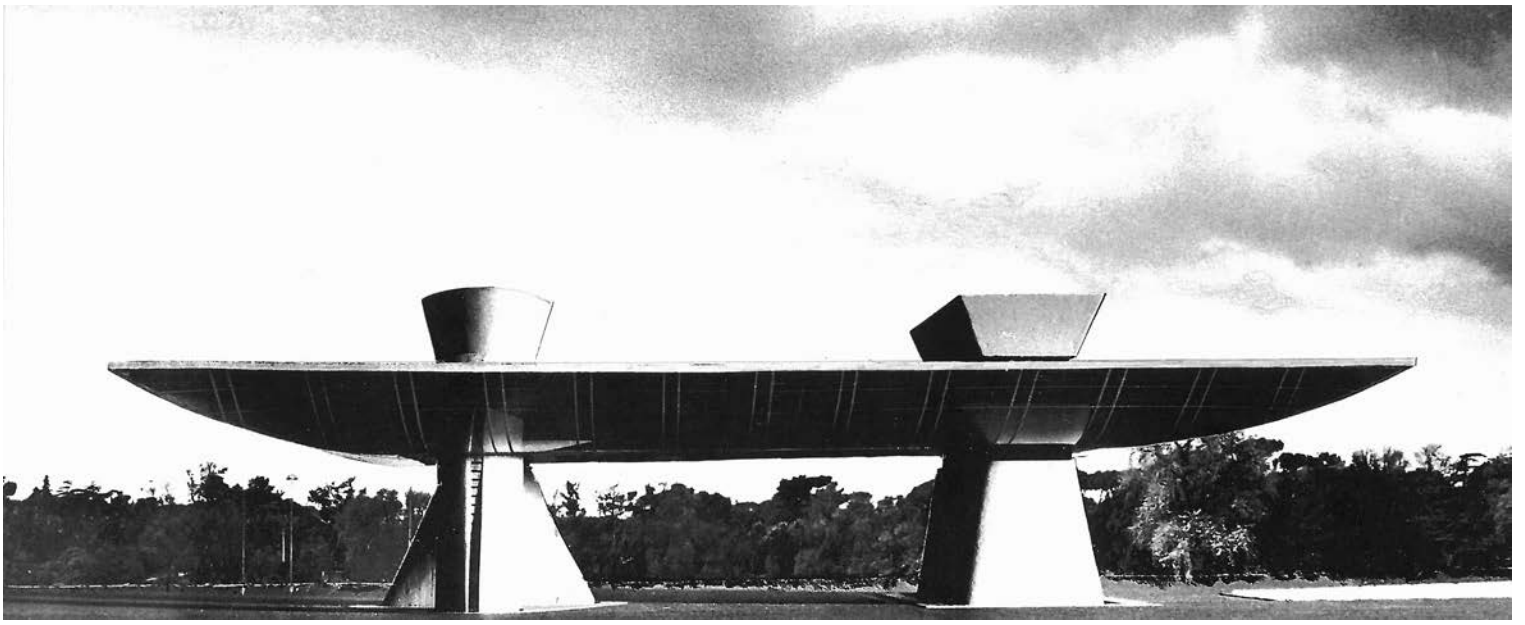
1. Renato Pedio, in: L'Architettura, *December 1959.*

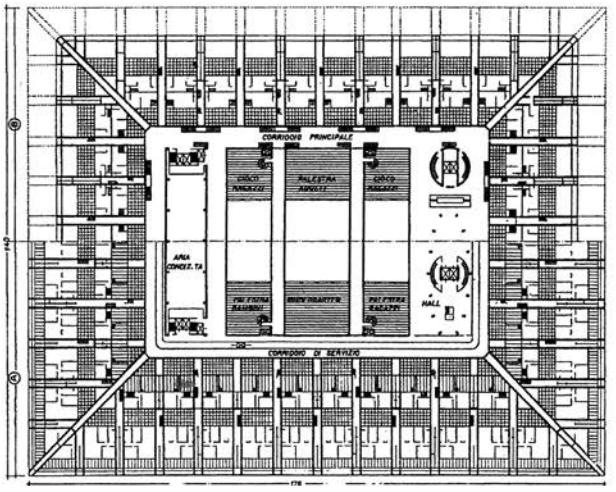


UNDERGROUND FLOOR

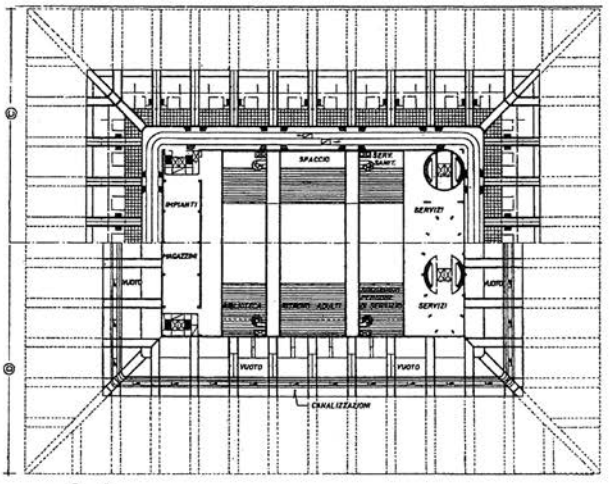


GROUND FLOOR





APT. FLOOR LEVEL 2



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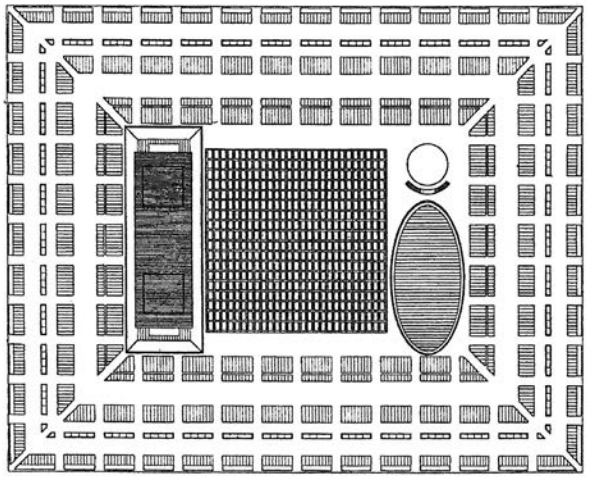
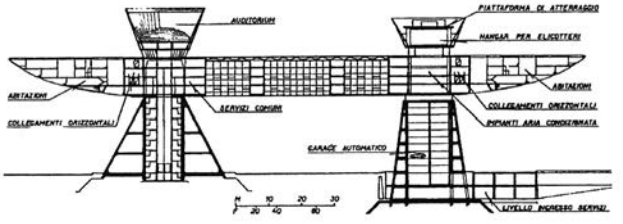


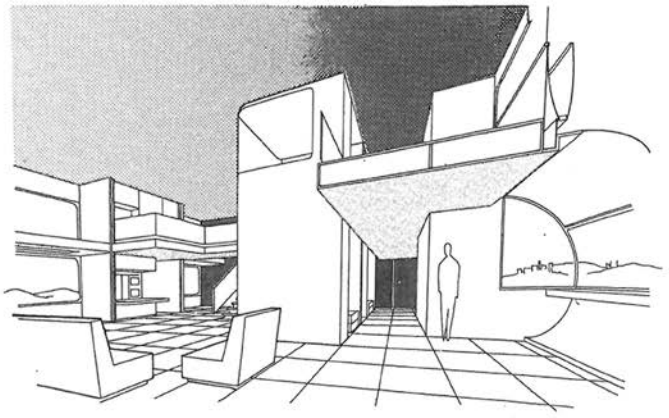
ROOF PLAN



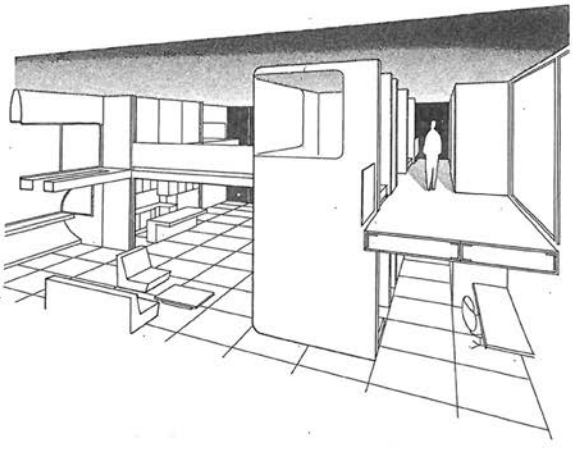
CROSS SECTION

CECA STEEL HOUSING: MODULAR DWELLING UNIT

International Competition
1966



Two bedrooms are also on the second level of the unit



In 1965 the High Authority of the European Community for Coal and Steel announced an International competition for the design of a prefabricated house. Designs were submitted by no less than 3,128 architects with the Italians being the most enthusiastic (801 entries), followed by the Germans (462), the French (431), the British (234), the Americans (175), the Belgians (134) and the Hungarians (131). Entries came from most other countries: from Russia five designs were sent, from Malta two, from China, Madagascar, Mexico and Ghana one each. The Jury was a mixed gathering representing diverse interests.

A set of factory-finished components has been designed, each corresponding to a particular use or function.

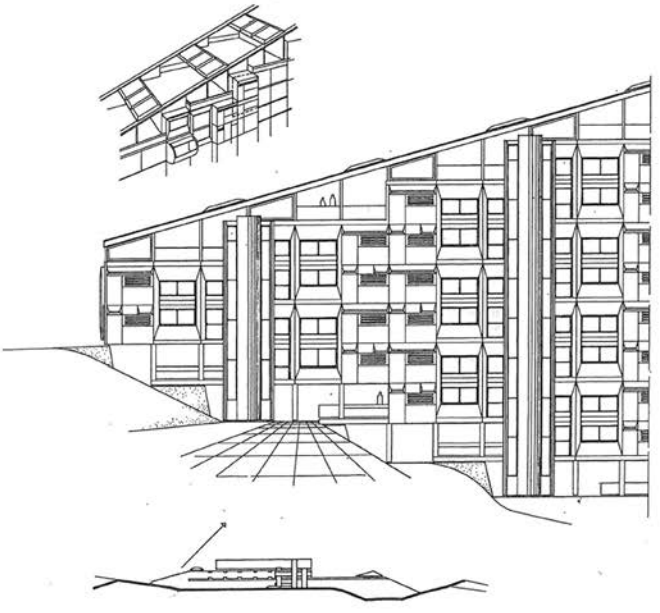
The structural units are loadbearing frames with windows or sheet steel cladding, plastic coated. All ductwork and service runs are integrally incorporated.

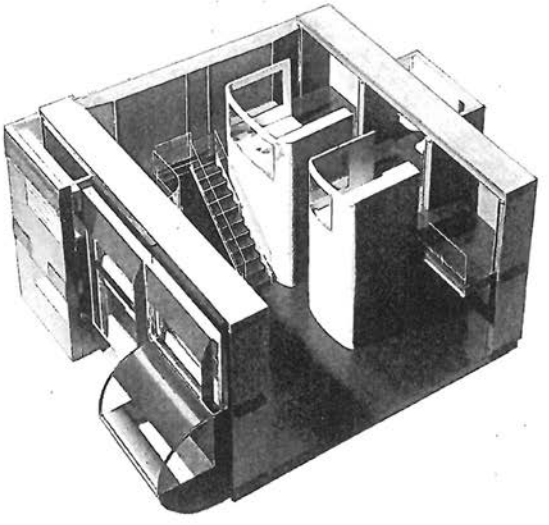
The floor slabs, of sheet steel and lightweight concrete, also have ductwork built in.

Kitchens, utility rooms, bathrooms and bedrooms are all formed with sets of components. These can be arranged at will, long after the completion of the building.

The systems are applicable for both individual dwelling units and large scale housing structures.

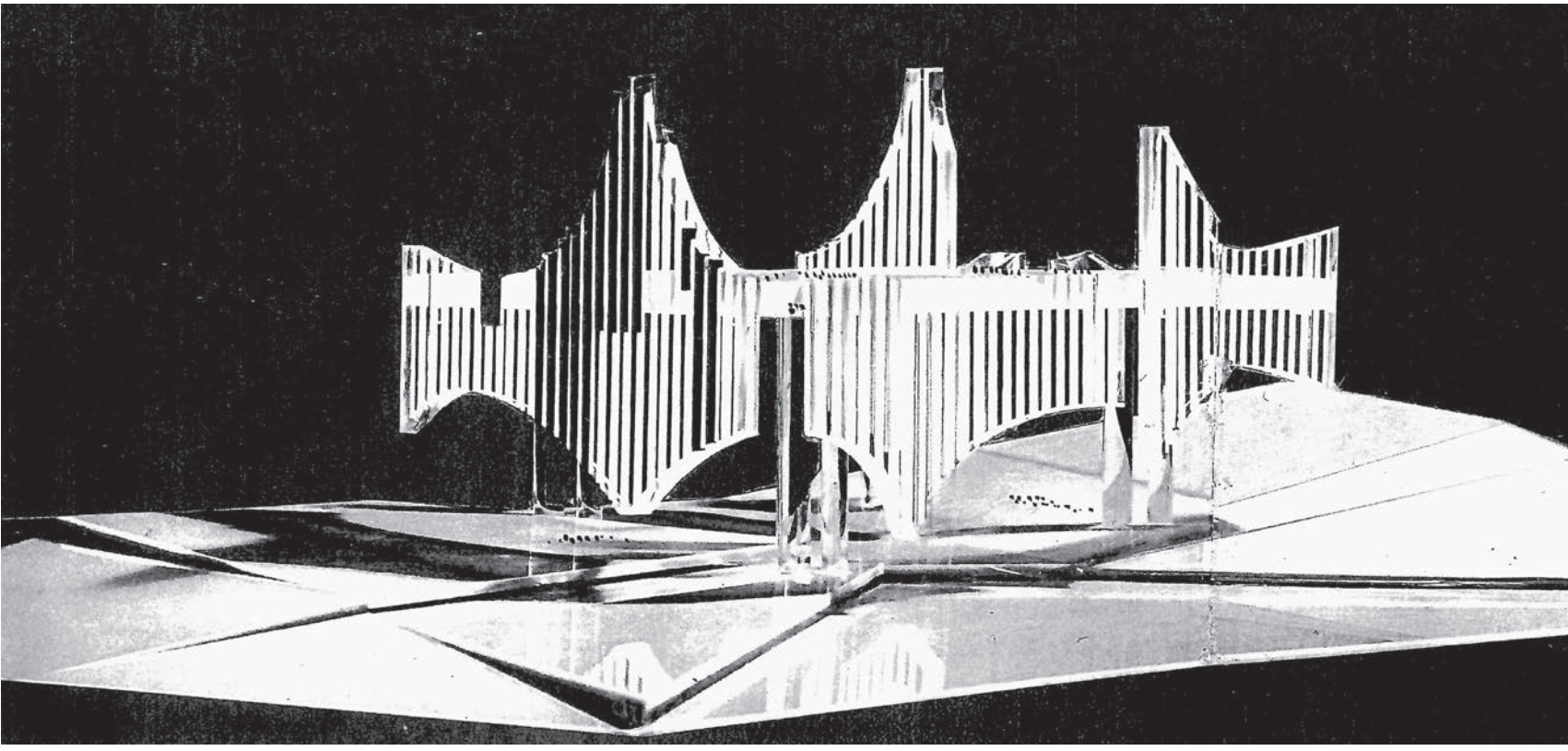
Three systems have been analysed to build a dwelling unit environment conceived as a continuous internal space as opposed to the traditional apartment layout made up of a labyrinth of rooms.

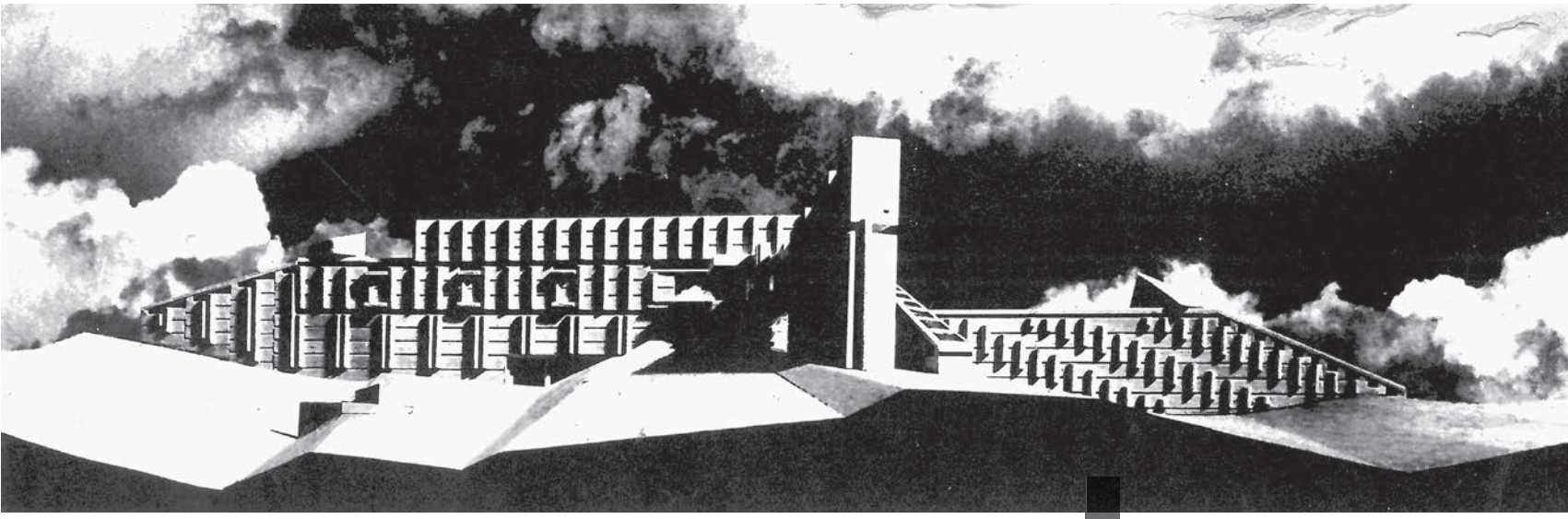




A view of the unit without the ceiling

One of the seven solutions winners of the CECA first phase housing competition





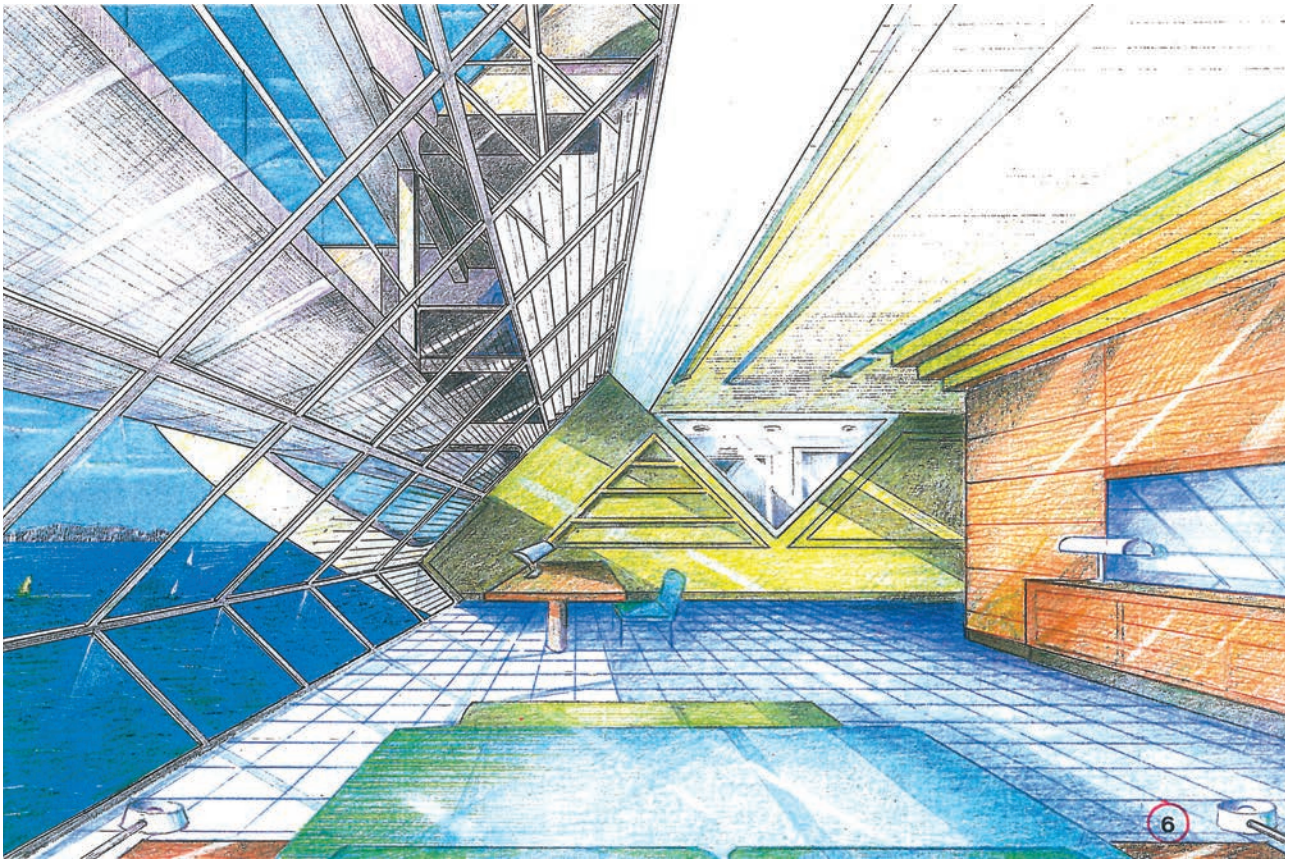
The winning team was headed by Renato Severino, chief-architect and chief-designer. Members of the team were: Roberto De Rubertis, Fabrizio Vescovo, Eleonora Masi, Manlio Salvia, Nanni Pazzi and Marino Rossi.

Above: model of the "Tree City": it can be built by suspending Frame Components by cables from macrostructure.
Below: System 1, model of a possible configuration. Frame Components and Function Objects can be assembled in various ways to form single-family units or multistory buildings

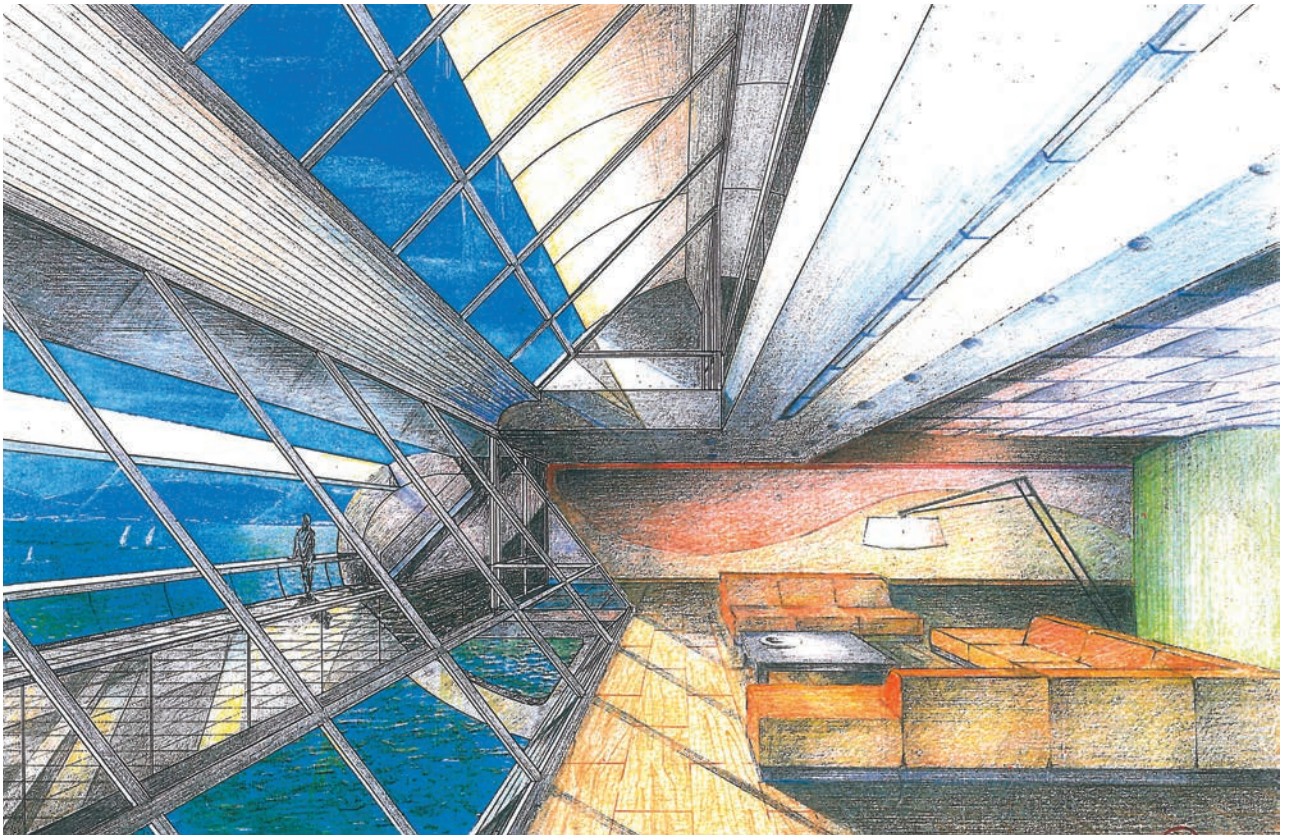
FLOATOWN

1996

A very large structure, conceived as a floating town containing a hotel, a number of apartments of various sizes and all the necessary services has been designed to be placed in a Sardinian bay, protected from wind and sea storm. In fact it can also be moved, and anchored, to several harbours of the area.
The tri-dimensional structure with a large square on its top to assure all around views contains a little harbour at the bottom, while including in the structure all the services necessary to sixty very large apartments, a hotel, two night clubs and a number of shops. Moreover, a garage for 100 cars, a storage for small boats, besides all the other facilities needed for a small town, including several elevator banks to connect the top area with the harbour, are contained in the vertical volumes that support the major horizontal structure.
The little harbour situated at the base of one of the Piers, supporting the horizontal platform, is capable to dock small sail and motor boats.
This floating structure can be moved around, when pulled by two very powerful motor boats, and be anchored in various predisposed coastal areas, according to the local climatic and weather situations predetermined demands.



Typical apartments interiors,opening
to the skies and to the sea



CHAMELEON 2

1994

Chameleon 2 is a structure of large dimensions that adapts to the land configuration and due to its size must find in the terrain a compositional equilibrium on various planes of different inclination. Structured as Convention Center, the building covers a large underground garage and includes exhibition halls, meeting areas and offices.

An open air theatre for 20,000 spectators is attached to the building through a large stage connected to it.
The ecological technology of this building features a 'solar cavity' system that absorbs the sun's energy when necessary. Each cavity can be covered with various types of screens during hot days and cold nights. A lens system designed to concentrate the rays of the sun produces the high temperatures necessary for transformation into cool air for space conditioning. Moreover, air circulation at low temperatures coming from the underground cavities below and from the sides of the building will also support the HVAC system during summer.