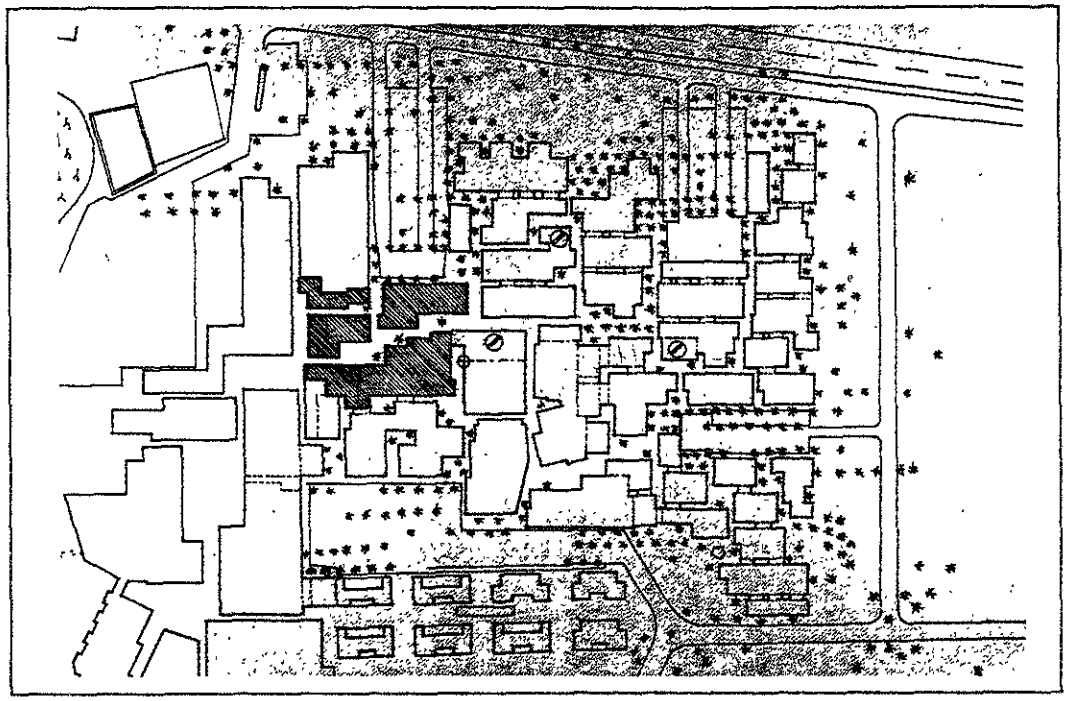
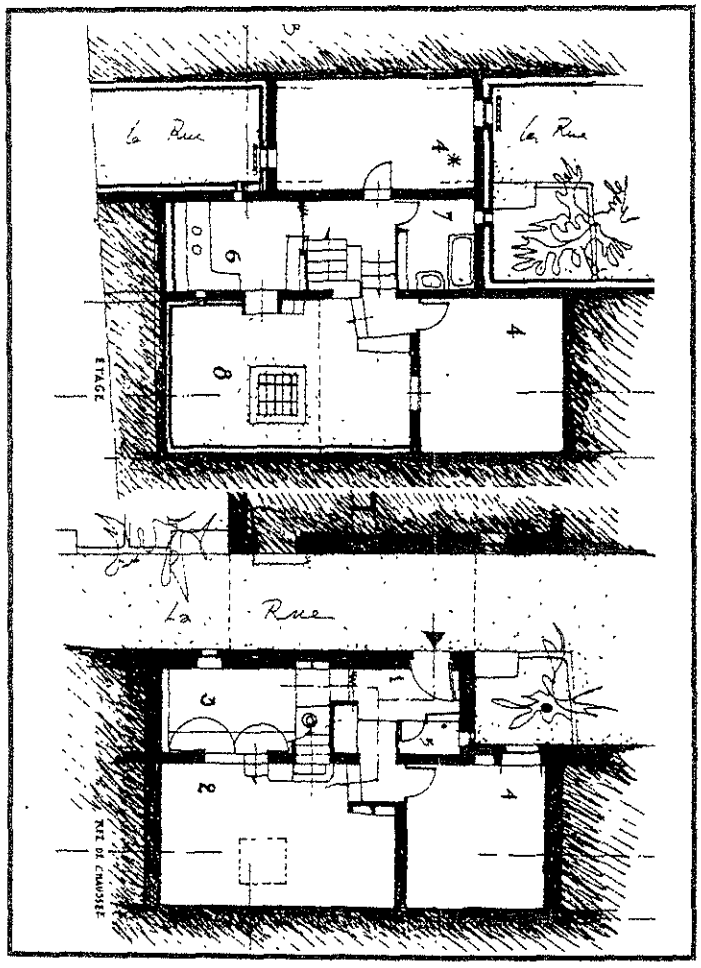
Sidi Abbas Housing Ghardaia, Algeria

Architect
Andre Raver eau
Aubenas, France





DESCRIPTION

(A) The Sidi-Abbaz project is located in the M'Zab Valley, near Ghardaia and off the road to the Oasis of Ouargla. It is situated at the foot of a rocky hill, surrounded by a unique panorama. Within a short distance to the east of the site are some palm orchards and the town of Ben Noura. To the south is the historical town of Beni Isguen and to the west is Ghardaia.

(B) The nineteen (19) housing units under consideration are part of a larger grouping of 260 units called for in the General Plan prepared for the valley. The remaining 241 units, not considered in this review, were developed and realized after the architect left the ERSAURE in April 1976. They are very similar to the ones designed by Ravereau, but have incorporated a number of changes in layout.

(C) The units are organized along the following distribution of functions.

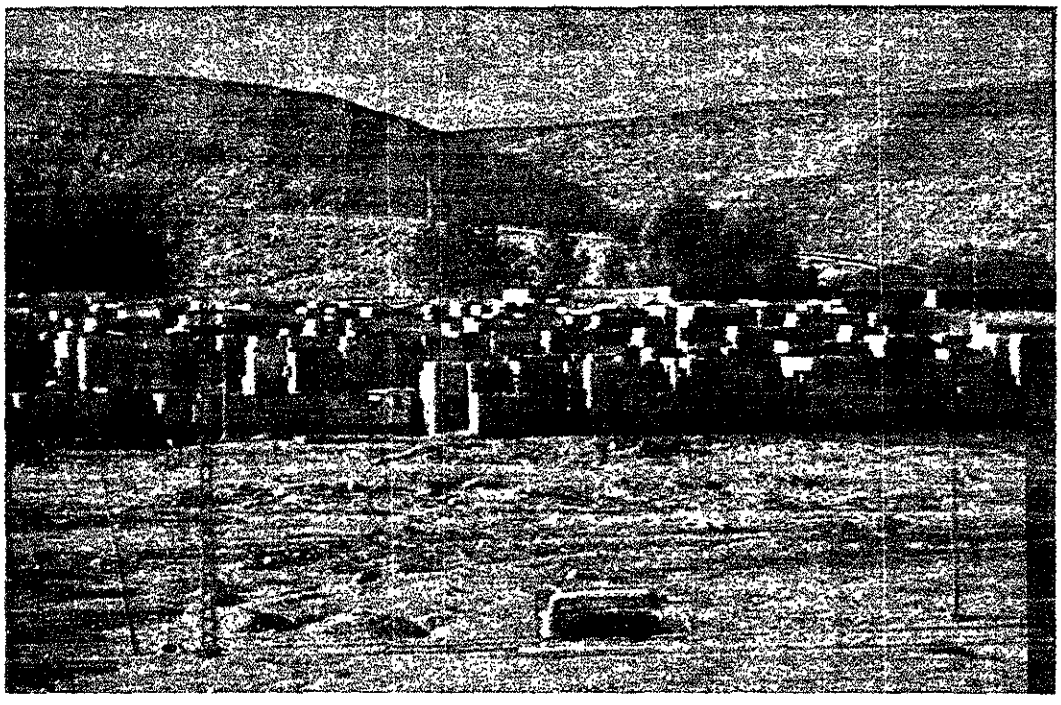
1. Ground Level:
Small entrance corridor
-A toilet easily accessible from the entrance by male guests
- A sitting room with an opening in the ceiling for ventilation
- A second adjacent sitting room that can be opened to expand the first sitting room.
- A small bedroom

2. Upper Levels:
-A kitchen located at mid-level between the sitting room and the terrace
- A second bedroom
- A bathroom
- Occasionally, an additional room was obtained by extending the unit over the street
- A terrace with high parapet walls to provide privacy.

(D) The two-level units are attached and frequently share as many as three party walls. In some cases, one of the units extends over the street (as it is done in traditional architecture) to provide an additional bedroom and offer a shaded passage.

(E) In keeping with the Development Controls, no unit in the complex exceeds 7.60 meters in height and no window opening is in excess of 1 square meter.

(F) The siting of the units discourages car access to most of them. However, the pedestrian paths have not yet been landscaped or finished, nor have the vehicular streets and parking



areas been paved.
In contrast with the existing nearby towns which were generally built on steep terrain, the grouping was erected on a site that has a very moderate slope.
(G) Water and electricity are provided by the city. Sewer connections are not yet completed and septic tanks are presently in use. City gas will be provided, but is not yet available.

DESIGN AND CONSTRUCTION

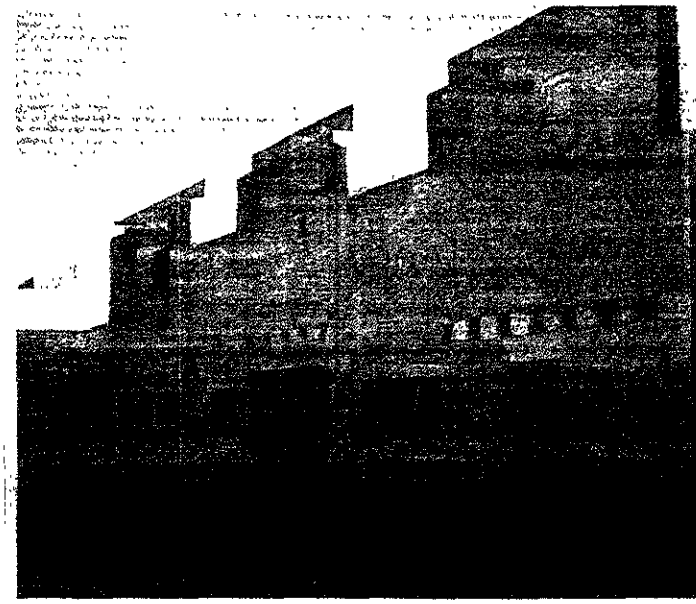
(A) Much of the architect's design philosophy results from his belief in the following :
1. Lifestyle is conditioned by the climate and therefore a maximum thermal protection must be provided.
2. Terraces fulfill a number of everyday needs and are essential elements of Saharan housing.
3. High density can be used to achieve the most positive living conditions.
4. The organization of all spaces must at all times respect the users' privacy and intimacy.
(B) Climate Control.
Thermal protection was addressed by considerably reducing the size of all window openings and by introducing, at the second level, a double exterior wall with openings at the bottom and at the top to permit the free circulation of the air between the exterior and interior walls. (It should be noted that the users believe that this feature makes their units cooler than the units which were realized at a later stage without it. At the time it was designed, Ravereau states that much opposition had been expressed by the technical authority responsible for verifying and guaranteeing the construction.)
The units have been oriented along a southeast axis that forms a 20-degree angle with the north-south axis thus providing an orientation that appears to be adequate.
(C) Materials
1. Walls were made of local cut stone with rough mortar joints. The lower level was left in a rough form while the upper level was finished with a smooth coating of cement.
2. The floor structure is made of light steel beams covered with cement pavers prefabricated on site.
All interior surfaces are brought to a smooth finish by applying a coat of fine cement. The floors are generally finished with a locally manufactured tile.

Project History

This program gave the architect the opportunity to demonstrate what kind of low cost house can be produced, answering both traditional and modern needs.
- The construction with the help of craftmens who already worked with the architect for private houses, gave the opportunity to make very clear to them to which standards the organisation of the house must answer and what kind of initiative can be taken by them during the construction:
- For example, they appreciated and decided the best situation for openings (doors and windows) in relation to any particular orientation or neighborhood interference.
- This project was produced in the context of ERASAURE-Establissement Regional Saharien d'Architecture d'Urbanisme et de Recherche sur l'Environnement- which has been created by the "Ministere de L'Interieur" after the architect's proposition in order to promote practical and theoretic trans formation of the Environnement, in the context of Saharian Region.
- This program is a part of a larger ensemble of 260 dwellings (individual) the architect designed earlier, in a general context he also studied when he produced the master plan of the M'Zab Valley in 1964.

PROJECT SIGNIFICANCE

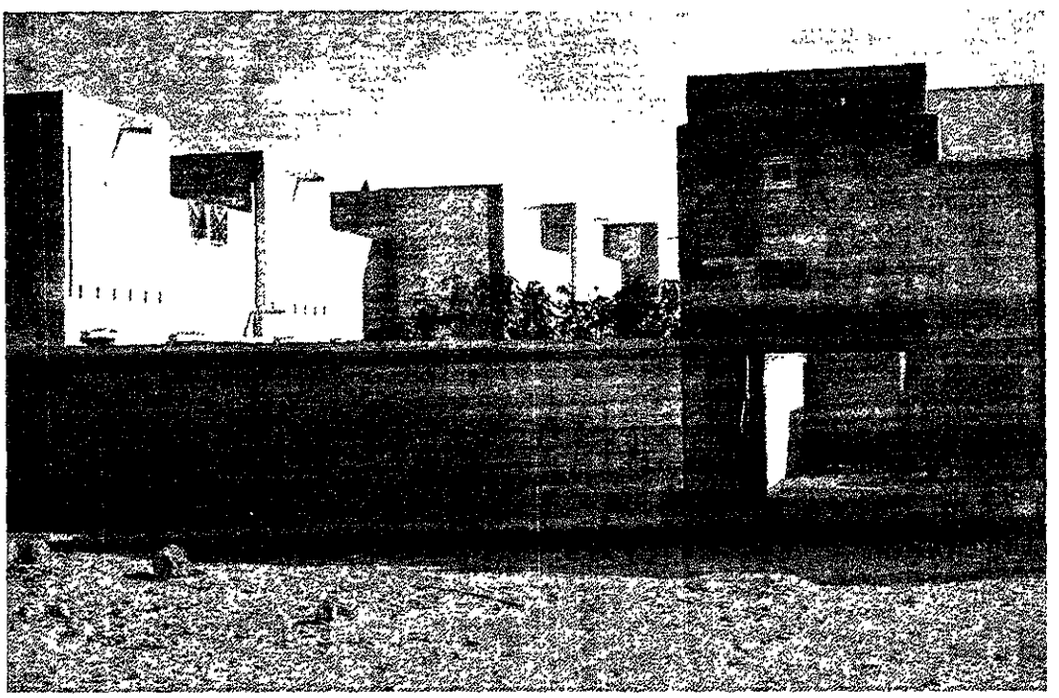
(A) The project represents a positive departure from the typical public high rise solution to low income housing.



(B) The project demonstrates that low cost housing does not have to be cheap looking or inhuman. On the contrary, it can be dignified and attractive.
(C) The 19 units have greatly influenced the design of the remaining 261 units. They have also strongly influenced another housing project located at Bernane, that is about 70 kms north of Ghardaia.
(D) According to the architect, the project has efficiently used the know-how and judgment of local workers who were encouraged to make a certain amount of on-site decisions.

TECHNICAL REVIEW ASSESSMENT

(A) Three separate units were selected at random by the Technical Reviewer, who subsequently had discussions with the occupants regarding details of living in their unit.
One unit was occupied by a bachelor and the two others by young public servants living with their spouses and children. All of them came from the northern parts of Algeria.
(B) All three expressed their preference for living in this type of complex, rather than a high-rise building. It was also their opinion that the original 19 units provided better thermal insulation than the ones built later where the exterior double wall was eliminated.
(C) All three users independently expressed the following reservations:
1. The distribution of the spaces does not correspond to their lifestyle.
2. The roof opening, designed for ventilation and light, and located in the ceiling of the central sitting room, represents a nuisance. It was conceived without a skylight or security bars. Intruders have used it to enter the units. Furthermore, much dust enters the living quarters through it. Most tenants have improvised means to close them, thus eliminating the source of natural light and ventilation intended for this area.



3. The kitchen located at mid-level is found to be highly unsatisfactory as most activities should be conducted at the floor below.
4. The terraces are only used in the summer, for sleeping, but the feeling is that they are unsafe as access from one terrace to another is extremely easy.
5. There are too many steps between rooms and the stairs are found to be too steep and dangerous.
(D) It is the observation of the Technical Reviewer that most units are occupied by a medium-income group that includes a number of Europeans who provide technical assistance to the local authorities. Among tenants, Europeans and bachelors appear to be the ones that are the most satisfied with the units.
(E) It is also apparent that the architect designed the units for a user and a lifestyle that have either changed or do not exist. He concedes that in his mind the construction of the 260 units was an evolutionary process. It is his opinion that once the first units were designed and constructed some modifications would have appeared necessary and could have been introduced under his supervision.
(F) According to Ravereau, "The project was the result of a long process of synthesis and evaluation.."
(G) Architect Ravereau has emphasized the fact that the Administration Director of ERSAURE imposed on him the installation of larger windows at the ground level of some of the units. He fully opposed it for reasons of privacy. This conflict was instrumental in his leaving the project. It must be noted that the windows in question have been found to be equipped with wooden shutters and that they greatly improve the natural ventilation of the units.