1992 Technical Review Summary
by *Serge Santelli*

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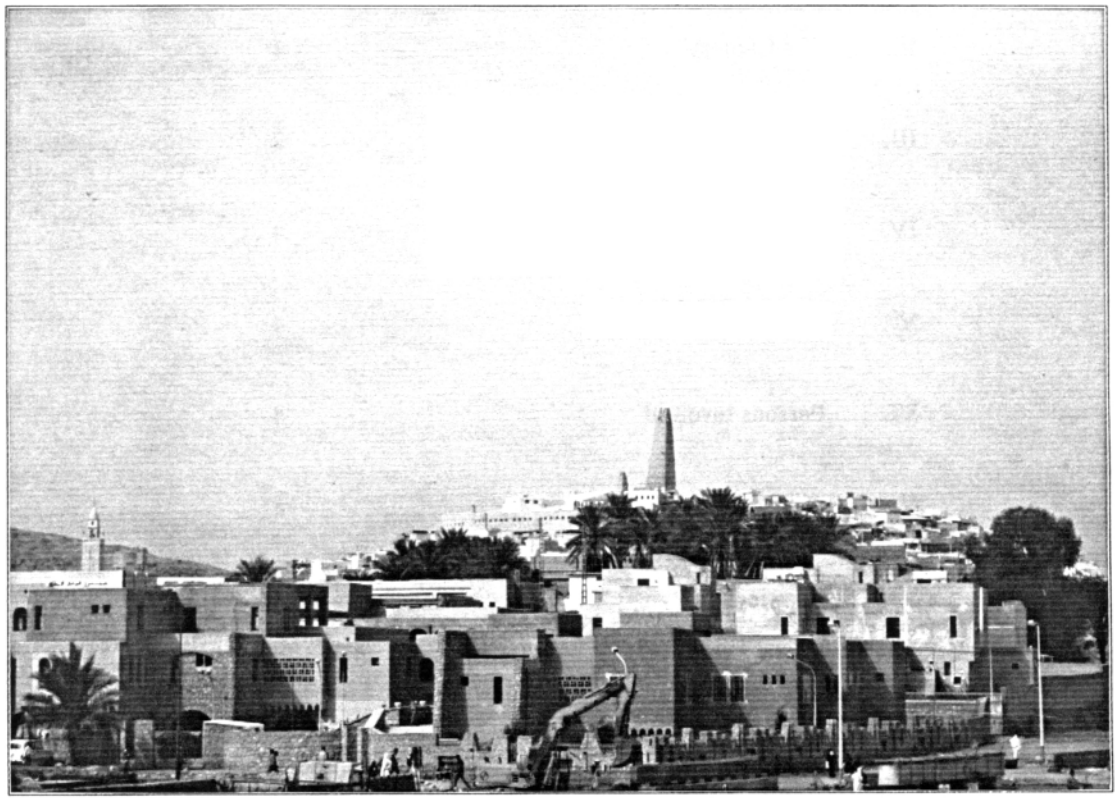
Social Medical Centre

Ghardaïa, Algeria



Architect
Miloud Boukhira
Oran, Algeria

Client
Caisse Nationale des Assurances Sociales et Accidents du Travail
Algiers, Algeria

Completed
1987

Social Medical Centre, Ghardaïa, Algeria

I. Introduction

The Social Medical Centre of Ghardaïa is not used as a medical centre and was never used as a medical centre. Conceived and built to welcome medical and sanitary facilities, the complex was converted to office use shortly after completion. The buildings have been transformed and adapted to suit the new programme.

The original programme of the Social Medical Centre consists of three distinct elements:

- The medical centre itself, for dental and general medical facilities, child and baby-care sanitary programmes;
- Administration, which provides offices for medical insurance payments;
- Staff housing.

The building was financed by the *Caisse Nationale d'Assurances Sociales* (CNAS), a public service organisation which is linked to the Ministry of Health but has an independent administrative structure. In the early 1980's the CNAS developed a very ambitious programme for the construction of social medical centres throughout Algeria. The social medical centre at Ghardaïa is one of numerous medical centres built in Algeria during this period.

In 1984, the government decided to suppress all existing medical centres and to develop public policlinics to replace them. The existing social medical centres were transformed to accommodate different public functions. The Ghardaïa social medical centre was transformed as the headquarters of the CNAS for the *willaya* (regional administrative unit).

The complex also accommodates the *Centre National des Retraités* (CNR) and the *Office National d'Appareillage et de Protection des Handicapés* (ONAPH). Designed to accommodate sixty people, the building presently accommodates 146 people.

II. The Context

The present situation is the result of competition between different administrative services of the Ministry of Health. It seems that the success and the relative wealth of the CNAS - which manages all citizens' insurance contributions - was unacceptable. The social medical centres played a very important rôle, which was previously the domain of the policlinics. The social medical centres were in competition with these policlinics and the decision was taken to suppress them. This decision was officially adopted in 1985, while the social medical centre at Ghardaïa was under construction. As a consequence of this decision, the complex was never used for its original purpose.

The architectural and climatic context

The building is located on the eastern fringe of the city of Ghardaïa, at approximately 400 km to the south of the capital, Algiers. The city is part of the M'zab valley group, which is on Unesco's World Heritage List. The valley includes five major cities: Ghardaïa, Beni Isguen, El Ateuf, Milika and Bou Noura, all splendid examples of Algerian vernacular architecture. Built at the top of natural hills and connected by palm groves along the river bed, they create an exceptional urban landscape which, to date, is well preserved.

The urban and architectural form of the M'zab cities has been very well studied and analysed by André Ravereau (*Le M'zab, une leçon d'architecture*), C. et P. Donnadieu and H. et J.M. Didillon (*Habiter le Desert, Les Maisons Mozabites*). The organic agglomeration of courtyard houses built along narrow streets and impasses produces a very dense urban architecture characterised by its

remarkable unity and homogeneity. The contrast between the built urban fabric dominated by the massive minaret and the green palm groves along the valley is striking.

Numerous new housing units have been built in recent years in close proximity to the cities and in the palm groves themselves. The new housing typologies, which differ from but do not oppose the traditional habitat, are an excellent example of urban continuity. The new constructions, which have developed rapidly all along the valley, represent a contemporary expression of traditional typologies, built by the people themselves, without the help of architects or technicians. They integrate with the existing fabric.

Climatic conditions are very harsh. Summers are very hot, which explains the small size of the inner courtyards and the thickness of the walls of the traditional houses. Sandstorms are common and impose specific protection.

The construction of a new building in Ghardaïa is a real challenge for an architect who has to respect the beauty and the unity of the existing architectural environment. Furthermore, the difficult conditions of the Algerian Sahara oblige the designer to address the climatic responses of traditional and contemporary architecture.

III. Description of the Project

The complex was conceived and designed as a Social Medical Centre, the sanitary unit of the CNAS. It was designed from Algiers by Miloud Boukhira, an architect and civil servant employed by the CNAS. The designer conceived the project from April 1981 to June 1982. Construction started in December 1982 and lasted seven years to completion in February 1987. During the construction of the complex, the Algerian government took the decision to suppress all social medical centres. The complex was then transformed to office space.

The site is very close to the traditional city, on its eastern fringe, near the river. The south-east façade faces onto one of the main streets. The site slopes considerably. The high part of the site has rock formations, and the lower part is crossed by a small river which was used as a sewer.

Medical and administrative functions were grouped in the lower part of the site, while the staff houses were located in the upper part of the site. The construction of the six houses required the use of explosives to clear the existing rock formations. The contractor had to protect existing houses near to the site. Construction of the administrative section of the complex involved the installation of a drainage system to control and stop the water flow and to suppress the previous sewer.

The building is divided into three different parts:

- The payment centre which is situated close to the entrance to permit easy access for the public. It contains a public hall with reception counter and some administrative offices.

- The medical centre is divided into two separate areas: one area for women and one area for men. Each of these areas forms one half of the symmetrical layout and contains waiting rooms, with administrative and medical offices. Technical and medical services (radiology, laboratories) are grouped together to the rear. These two sections are linked by the landscaped public entrance area.

- The six houses are for administrative or medical staff. The concept of the house type is traditional and rooms are grouped around an enclosed courtyard. The houses are located behind the complex, arranged to form a small public square (*une placette*).

A Domestic Scale

The architectural concept is clear: the architect wanted to give a unique, homogeneous image and aspect to the building. There is no distinct separation between the three areas of the complex. The functional components of the building are not expressed or distinguished. To the contrary, it seems that the architect did not want to give any public significance to the building, or to express any functional differences.

The architectural choice led the designer to use the aesthetic of indigenous, domestic constructions: the complex looks like a group of houses. Both the exterior and interior refer to traditional housing volumes: the complexity and multiplicity of volumes, and the complicated and picturesque treatment of the masses are part of the conventional vocabulary for housing. The arrangement of circulation and paths refer to an urban situation, and reflect the organic quality of the streets of the traditional city.

The Patios

The design of the complex implies courtyards of small size. Unfortunately, these outdoor rooms, which refer to a local Islamic tradition, do not give order to the project. The different spaces which surround these outdoor rooms are not open to them, which means that the visual relationship between the patios and the rest of the building is very poor. In this project the courtyard does not have a meaningful expression; it is a small outdoor room, a badly maintained "backard". It is not used as an outdoor planted space.

One could question the lack of institutional significance in the architecture of the project and its semantic reduction to domestic scale. It is of course the choice made by the architect to integrate the complex as much as possible with the urban tissue and architecture of the traditional city. The architecture of the medical centre is an architecture of houses, in an effort to continue the unity of the city. This impression is reinforced by the fact that the different parts of the building are relatively closed and have very few openings or windows on façade.

This approach is common among Algerian architects and designers. It is radically opposed to the approach developed by the Algerian architect Bouchama, who always gave a monumental dimension to the public buildings he designed.

The architectural culture of the social medical centre of Ghardaïa belongs to the culture which was exposed by the group Team X in the late sixties in Europe. At this level, we must say that the approach adopted has the great advantage of being modest, simple and integrated with existing traditional structures.

Structure and Materials

The structure of the building is simple and uses two techniques common in Algeria:

- The traditional technique of loadbearing stone walls is used for the houses and parts of the centre.

- The modern technique of reinforced concrete structural frame is used for the parts which require large rooms and spatial flexibility (laboratories). The infill is of stone, concrete block or industrial brick.

Floors and terraces are of prefabricated concrete sections. Ceilings are finished with local plaster and façades are finished with traditional mortar - with natural colour finish.

The construction techniques used are common, contemporary techniques in Algeria. The architect had to respect seismic regulations, which explains the massive use of reinforced concrete for the primary structure. Local builders were employed.

The architect used traditional materials where possible: stone, plaster, mortar. In doing so he had to impose his choice on the engineers of the *Contrôle Technique de Construction* (CTC), a governmental body in charge of inspecting public buildings.

IV. Construction Schedule and Costs

Construction of the building took almost five years. This can be explained by the change in client, when the government decided to suppress the social medical centres and transform the use of the buildings. Total costs of the project was DZD 29'388'650 (USD 5'412'275) (USD = DZD 5.43 Algerian Dinars. Costs are higher than average for the region: DZD 6'916 (USD 1'273) per m^2 as compared with DZD 6'500 per m^2. The additional cost is due to the need to remove rock formations on the higher part of the site. The complex is not air-conditioned.

V. Technical Assessment

The present use of the building is different from the one which was planned (146 people use the building instead of 60). Partitions have been built to satisfy new functional requirements; halls have been transformed into storage rooms.

The buildings, if they refer to the local traditional architecture, offer informal outdoor public spaces. The complexity of the volume and mass gives a picturesque image to the complex, but offers poor outdoor spaces: a public entrance with no real form (badly designed), filled with trees, plants and ugly outdoor furniture. An empty, unused square and a peripheral left-over space (so-called "green" space) surround the complex. Luckily the enclosure wall creates a strong urban connection with the existing street pattern.

Maintenance of the building is poor and tends to give a "popular" aspect to the complex. The transformations have damaged the building and spoiled the original concept. The architect is not responsible for this situation.

It seems that the quality of the building is reduced to its external appearance, with clever, talented treatment of the mass and volume. It is certain that the physical integration of the social medical centre - continuity with the traditional urban fabric - is a success. The complex blends with its close environment such that it becomes almost anonymous. No one would remark the complex as a new structure, as it offers the collective aspect of the traditional urban architecture.

The integration of the project with the existing environment is the most positive aspect of the design. Unfortunately, the quality of the indoor spaces, the effect of the transformations, the poor maintenance, the "left over" feeling one gets when one penetrates the complex and walks through the so-called public outdoors spaces, are all negative aspects of the project.

VI. Persons Involved

Architect	Miloud Boukhira.
Client	Caisse Nationale d'Assurance Sociale et Accidents du Travail (C.N.A.S.A.T.).
Contractor	Mohamed Lahouadji.