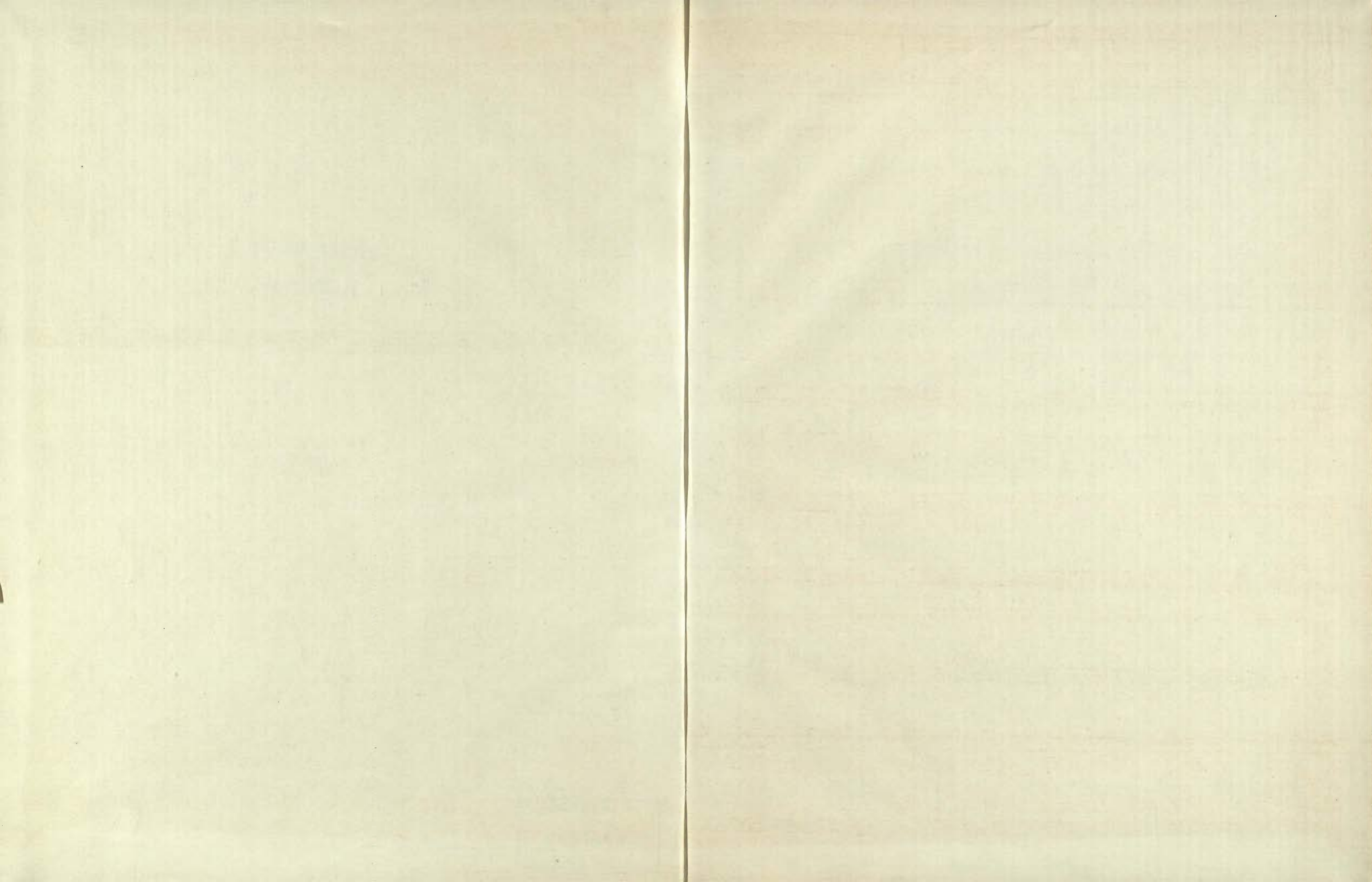


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S U M M E R R E S O R T H O T E L

A T A I N - A R , L E B A N O N

BY

ROBERT MONDALEK, B.A., 41'

THESIS

for B.Sc. in C.E.

Under the tutorship of

Professor N. MANASSEH

BS.C.E
1945



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I N T R O D U C T I O N

One of the most important incomes to Lebanon is its summer resort. Endowed with natural gifts, as soft waters, fresh air and beautiful sites Lebanon is the Holiday quarter during summer time of the neighbouring countries Syria, Palestine, Irak and Egypt.

During the past twenty-five years, the government and the people have never ceased to study the problem of the improvement of the mountain by the creation of conveniences which will give a pleasure to the foreign travellers to come to this country. Few of those conveniences have been developed since and some of them are partly achieved while others have never been made.

Besides the natural beauties of the place the foreigner will ask for two main things: the comfort in transportation from one place to another and the comfort in accomodation.

The first one has been partially developed and most of the villages have already asphalted roads which in some places are still very narrow and winding, but in general, improvement is carried on though slowly.

The second one which is the comfort in accomodation is the one which is the most lacking in Lebanon; besides very few hotels which do not exceed half a dozen in the whole mountain, all the others need many things to be done inside them before they can be counted comfortable places for rest; the trouble comes from the fact that most of them were private dwelling houses before they were converted into hotels.

Having these considerations in mind and dealing with a

relative who has a big property in the mountain and has audacious ideas for the future, I decided to choose for my architecture thesis, the study of a Hotel at Ain-Ar in the property of that relative.

Being a rich man and having a foresight for the future he asked me to put aside momentary lack in materials and to study something which will be the most comfortable for those who are coming to enjoy some weeks in Lebanon.

I N T R O D U C T I O N

One of the most important factors in the success of a resort is the location. A resort which is situated in a beautiful area in the holiday season is the most successful. In the past few years, the government and the people have never ceased to study the problem of the improvement of the mountain by the erection of conveniences which will give pleasure to the foreign travelers to this country. Now of these conveniences have been developed since and now in this way partly achieved while others have never been made.

Besides the natural beauty of the place the foreigner will ask for two main things: the comfort in transportation from one place to another and the comfort in accommodation.

The first one has been partially developed and now it is still very narrow and winding, but in general, improvement is carried on change slowly.

The second one which is the comfort in accommodation is the one which is the most lacking in Lebanon; besides very few hotels which do not exceed half a dozen in the whole mountain, all the others need many things to be done inside them before they can be considered comfortable places for rest; the trouble began from the fact that most of them were private dwellings before they were converted into hotels.

Having these considerations in mind and dealing with a

S I T E

Before I start to speak about the hotel itself, I have to tell few words about the site where this hotel is to be erected.

Ain-Ar is a little village at 20 kms. from Beirut on the main road to Dhour-Chouair; being 750 meters above sea level, its climate is moderate and healthy and most of its area is covered with pine-trees. The village has a spring which flows in the central square but all the houses are supplied with water which comes from Nebh-el-Manbouk and passes by Dhour-Chouair and Bikfaya.

The site of the Hotel itself is at the upper end of the village, on a place slightly inclined partly covered with pine-trees and near the main road.

With Mount Sannine to the East, clad with snow most of the year, the sea with Mount Kesrouan and the Statue of the Virgin at Harissa to the North; the city of Beirut - unattractive during the day, but twinkling at night like emerald bathed in the Mediterranean to the West; the hills covered with evergreens to the South, I think the site of the hotel is unique in its scenery.

The land dedicated to it has an area of 32000 square meters, and apart from that, the nearest existing buildings lie outside a circle of 200 meters radius from the boundary line.

With such a large area, I agreed with the owner that a two-story hotel with a basement, covering a large area would be more comfortable and better adapts itself to the scenery around it. One might object to this as being uneconomical, but beauty and comfort and not economy are our guide in this case. Our only aim is to provide a modern structure which will appeal to summer visitors and make them feel at home; thus adding an artificial beauty to the

S I I

Before I start to speak about the hotel itself, I have to say a few words about the site where this hotel is to be located. The site is a little village at the foot of the mountain. The village has a spring water in the center and all the houses are supplied with water which comes from the mountain. The site of the hotel itself is at the edge of the village on a place slightly elevated and covered with pine-trees and oak. The main road is to the East, old with some parts of the road, the new one with Mount Lebanon and the station of the village. The site is to the North; the city of Beirut - unfortunately during the day, but remaining as usual. The water is taken in the mountain to the West; the hills covered with evergreens to the North. The site of the hotel is in the center. The hotel is to be built on a slope of 500 meters from the mountain. With such a large area, I expect with the money that is to be used with a basement, covering a large area will be possible and better adapted itself to the necessary rooms. The main object to this is being economical, but beauty and comfort and not necessary are our goals in this case. Our only aim is to provide a modern structure which will appeal to modern visitors and make them feel at home; thus adding an artistic beauty to the

natural beauty of our beloved Lebanon.

THE BUILDING

The general form of the building is like that of a comet having in the star itself the reception group: Hall, Salons, Dining-room, Kitchen, Bar, etc., and in the tail, which makes an angle of 30° with the star, the bed-rooms.

The building lies in an East-West orientation having the main facade parallel to the main road and facing the South. The North facade which contains the verandas of the Salon and the dining-room is facing the sea and receives no sunshine for most of the day.

This general orientation allows the rooms, situated towards the South, to receive the sunshine from about 10 A.M. till 5 P.M. Those which are towards the North receive the sun-shine in the morning till 9 o'clock.

The prevailing wind, being that coming from the South-West, the best site for the kitchen is the East, hence the smell is carried away from the hotel relieving the occupants of undesirable odours.

The building which is spread over a large area consists of two stories and a basement.

GROUND-FLOOR

The ground floor is divided into two parts; the main part containing the reception quarter and the wing containing the dwelling quarter.

To reach the main entrance one has to go up few steps which

being more than 10 meters in length give striking effect to the whole structure. The entrance itself has a monumental door in the middle and an opening on each side, the one to the right is a large window for the office, the other to the left is a door for the luggages entrance which is independent from the main entrance and leads to a separate stairs for the conveyance of luggages to the upper floor.

The office, a quite large room 6.00 x 3.40 m. controls the entrance by a wide opening of 3.00 m. containing a counter.

Once we cross the entrance we reach a central hall which gives way to the whole building.

Starting from the right, a wide corridor leads to the Smoking-room, the Dance Hall and the Dining-room. Facing the central Hall is the big Salon 12.00 x 10.40 m. with a covered verandah. The entrance to the salon consists of three adjacent wide doors and the exit to the verandah is similar, so during warm days all these doors may be left opened to keep the Salon cool.

Just to the left of the main Salon is the main stair-case for the upper floor; having steps of 1.60 m. wide with a thread of 33 cm. and a rise of 16.5 cm., which is considered to be quite comfortable.

Near the stairs there is an elevator which leads to the landing of the first floor. From the two sides of the elevator there are simultaneously the ladies and the gentlemen lavatories.

On the left side of the Main Hall starts a long corridor 2 meters wide which leads to the bedrooms. Just at the beginning of the corridor a stair-case for service connects the ground floor to the basement and to the upper floor; near the stair-case is a kitchenette 4.30 x 3.70 m. in which only breakfast and teas are prepared to

natural beauty of our beloved Lebanon.

THE BUILDING

The general form of the building is like that of a cross having in the center the reception group: Hall, Salons, Dining-room, Kitchen, Bar, etc. and in the tail, which makes an angle of 30° with the main axis, the baggage entrance.

The building is in an east-west orientation having the main facade parallel to the main road and facing the sea. The main facade which contains the verandah, the Salon and the dining-room is facing the sea and receives the maximum light of the day. This general orientation allows the rooms, situated towards the south, to receive the sunshine from about 10 A.M. till 5 P.M. Rooms which are towards the north receive the sun-light in the winter till 9 o'clock.

The prevailing wind, being that coming from the South-East, the best site for the kitchen is the West, where the wind is carried away from the hotel relieving the occupants of unpleasant odors. The building which is spread over a large area contains in two stories and a basement.

GROUND-FLOOR

The ground floor is divided into two parts; the main part containing the reception quarter and the wing containing the dwelling quarter.

To reach the main entrance one has to go up few steps which

being more than 10 meters in length giving effect to the whole structure. The entrance itself has a monumental door in the middle and an opening on each side, the one on the right is a large window for the office, the other to the left is a door for the luggage entrance which is independent from the main entrance and leads to a separate stairs for the convenience of luggage to the upper floor.

The office, a large room 6.00 x 3.50 m. contains the entrance by a wide opening of 3.00 m. containing a counter. Once we cross the entrance we reach a central hall which gives way to the whole building.

Starting from the right, a wide corridor leads to the Smoking room, the Dance Hall and the Dining-room. Facing the central hall is the big Salon 12.00 x 10.40 m. with a covered verandah. The entrance to the salon consists of three adjacent wide doors and the exit to the verandah is similar, so having wide ways all these doors may be left opened to keep the Salon cool.

Just to the left of the main Salon is the main stair-case for the upper floor; having steps of 1.50 m. with a tread of 33 cm. and a rise of 15.5 cm. which is considered to be quite comfortable.

Near the stairs there is an elevator which leads to the landing of the first floor. From the two sides of the elevator there are simultaneously the ladies and the gentlemen lavatories.

On the left side of the main hall starts a long corridor which leads to the bar, just at the beginning of the corridor a stair-case for service connects the ground floor to the basement and to the upper floor; near the stair-case is a kitchenette 4.30 x 3.70 m. in which only breakfast and tea are prepared to

be served either in the bed-rooms themselves or in a breakfast-room 8.00 x 5.70 m. which lies between the kitchenette and the next bed-rooms. This breakfast-room has a verandah to the North side 8.20 x 3.50 m. which does not receive the sun after 9 o'clock in the morning.

There are eleven bed-rooms in the ground floor which are all similar, I shall describe later on one of these rooms in detail.

Continuing the turn around the main hall and before we reach our starting, the main entrance; there is a room 6.50 x 5.30 m. quiet enough for those who want to read or write. Its western wall is circular and contains a door leading into a triangular space formed by the western wing. This space will be used for keeping books.

Moving to the right we come now to the wide corridor which serves the Smoking-room, a rectangular room 8.90 x 5.70 m. which has its door just opposite the door leading to the dining-room; two windows are opened to the South giving it enough air and light.

Near the smoking-room lies the Dance-Hall, a wide hall 11.00 x 9.30 m. having a verandah to the South covered with semi-circular arches. The width of the verandah is 2.5 m. and is connected to the dance-hall by two wide doors.

This verandah opens on a large terrace 16.00 x 12.00 m. which is connected to the dance-hall by a wide door. The terrace has independent stairs which come from the road and may be used by visitors who do not live in the hotel. The terrace is in the shade from 5 o'clock in the afternoon and is dominating the main road where all people going from Beirut to Bikfaya and Dhour-Chouair have to pass.

The terrace which may be counted an independent cafe has its own buffet which is connected by a corridor to the kitchen from where it brings its supplies.

Opposite the buffet is a bar opening to the dance-hall, next

to the bar is a pantry 4.40 x 4.10 m. which connects the kitchen to the dining-room. It has a door opposite that of the kitchen and two doors opening into the dining-room, the right one is for those who go out, and the left one is for those who come in; this arrangement keeps circulation regular during dinner-time.

The dining-room to which we arrive now is a large room 12.50 x 11.00 m. having four slender columns supporting the roof.

The South wall opens to the corridor by a 2 meters door. The West side leads to the main Salon by a double door, the North side contains four doors leading into a large verandah 13.50 x 7.50 m.

The verandah situated in the north does not receive the sun at Noon and can be used by those who like to have their lunch outdoors. At night it is well lighted, and is a pleasant and fresh place for dinner.

The dining-room verandah joins with the covered salon verandah giving thus to the passengers a free space to move from one place to another.

Near the pantry is a little dining-room 4.50 x 3.60 m. for servants which has no connection other than a door giving to the corridor facing the kitchen.

The kitchen 9.00 x 7.00 m. occupies the eastern corner of the building and has near it a special stair-case leading down to the basement and to the exit and also to the first-floor; near the kitchen there is a room 3.60 x 3.50 m. for laundry.

FIRST-FLOOR.

Let us now pass to the first floor by following the main stairs. Once we reach the landing the same central hall as that of the ground floor opens before us. A free space, 3 meters wide, leads to the opening over the main entrance which gives light to the hall.

Over the office of the ground-floor is arranged a bed-room 4.30 x 4.00 m. with its bath-room aerated through a ventilation shaft.

To the north side of the hall, there are two apartments each one containing one bed-room, a bath-room and a private living-room; the bath-room being between the bedroom and the living-room, these two apartments are the most luxurious of the hotel.

Going eastward from the central hall, we have a corridor on each side of which are four bedrooms with a bath-room and a verandah for each one of them.

The corridor continues by an angle of 90° and reaches the stair-case which goes down to the kitchen and the basement. To the right side of the corridor there are three rooms, two of which have their own bath-rooms and are kept for passengers while the third one which is near the stairs is for the servants who are on duty in this part of the floor.

Coming back to the hall, we have, facing the main stairs, a large room situated over the reading room, it has an internal bath-room with a window opening to the outside. From the hall and facing the West starts the wing with 2 meters corridor serving all the bed-rooms on the two sides.

A detailed description of one of these rooms imposes itself now.

A room consists of three essential pieces: the entrance, the bath-room and the room itself. The entrance is a little cotridor 2.00 x 1.00 m. separating the room from the bath. The bath-room 2.20 x 1.80 m. has just efficient space to move freely inside it, it has a window to a ventilation shaft which goes from the ground floor to the top of the building.

The room itself is 4.40 x 3.70 m. and has a wide window 1.60m. in the middle and a built-in closet in the wall between the bath-room and the ventilation shaft. The built-in closet is 100 x 60 cm.

THE BASEMENT

According to the slope of the natural ground, a large part of the northern side of the building is only about one meter above the ground level while the southern and the western sides have 3.5 to 4.00 m. elevation, allowing the construction of a basement which occupies more than the half of the area of the whole structure; the remainder will be filled in.

Under the main structure, the basement contains two communicating garages, a room for provisions, a wine cellar, a room for the boiler with a door wide enough to allow the machinery to come in and a large room for washing.

In the wing there are six bed-rooms for the servants and a room for ironing. A lavatory with two showers is fitted for these rooms.

TECHNICAL PART

The previous chapters were dedicated to the description of the building as a whole with the disposition of its part, this chapter is for the study of the construction of that building.

From the architectural point of view, the general style of the building is the modern style, simple in its lines and clear in its effects, the windows have a width greater than their height, the semi-circular arches which are in the south facade give to the building a local seal which combines itself with the modern ideas of simplicity.

The construction is made entirely with limestone which is found in the property itself; only internal walls of bath-rooms and few partition walls are built with hollow bricks.

Starting from the foundations and going up we may say that the building rests on continuous foundations 70 cm. thick built of random rubble masonry with cement mortar. Exposed surfaces everywhere in the building are made of block in course hammer faced masonry with the exception of door and window cills, jambs and lintols which are made of tooled stones.

The basement has all its walls 50 cm. thick with coursed masonry in the outside walls and random masonry in partitions.

The ground floor has the walls of the main part 50 cm. thick while those of the wing are 35 cm. thick.

The partition walls of the ground floor are bearing walls 25 cm. thick but partition between bath-room and bed-rooms are hollow bricks 10 cm. thick. The ventilation shafts and built-in closets are also made of bricks.

GENERAL DESCRIPTION

The previous chapters were devoted to the description of the building as a whole with the exception of the details of the construction of the building.

From the architectural point of view, the general style of the building is the modern style. The lines are clear and the windows have a width greater than their height. The semi-circular arches which are in the south tower give to the building a local note which explains itself with the modern lines of simplicity.

The construction is made entirely with limestone which is found in the property itself; only external walls of bathroom and low partition walls are built with hollow bricks.

Starting from the foundations and going up we may say that the building rests on continuous foundations 75 cm. thick built of red brick masonry with cement mortar. External walls are built with red brick in the building and black in corner piers. The walls are also the exception of four and window sills. The walls which are made of solid masonry.

The foundation has all the walls 50 cm. thick with masonry in the outside walls and red brick masonry in the partitions.

The exact floor has the walls of the main part 50 cm. thick with chases of the walls are 35 cm. thick.

The partition walls of the ground floor are bearing walls 25 cm. thick but partition between bathroom and bedrooms are hollow below 10 cm. thick. The ventilation shafts and chimneys are also made of bricks.

The external walls of the first floor are 25 cms. thick while most of the partitions are 10 cms. thick.

Slabs over the basement are reinforced concrete slabs, supported on bearing walls. The garage, the washing and the ironing rooms have heavy beams supporting the slabs.

Over the ground floor are reinforced concrete hourdis slabs supported by bearing walls. The main salon, the hall, the dining-room, the smoking-room and the kitchen have heavy beams supporting the slabs.

The roof is also made of reinforced concrete, it is made watertight by the use of a layer of bituminous felt between two layers of concrete; the lower layer being the reinforced and 12 cm thick, the bituminous layer is about 1 cm. thick and the upper layer of concrete which has fine gravel is 4 cm. thick. The total thickness will be 17 cms. The bituminous and upper concrete layer are cast afterwards.

The roof of the stair-cases are simply reinforced concrete slabs 12 cm. thick.

A water cistern is built on the top of the stair case near the kitchen. The bottom of the cistern is of reinforced concrete 25 cm. thick and cast together with the 15 cm. thick reinforced concrete wall. This makes a complete reinforced concrete structure 400 m. long, 2.20m. wide and 1.50 m. high. It is covered by a 10 cm. thick reinforced concrete roof. This cistern receives its water by gravity from the main which comes from a reservoir situated on the top of a hill over the hotel.

The roof of the hotel has its level surface broken off by the projecting part of the ventilation shafts which consist of an open space 2.00 x 1.00 m. between two bath-rooms. These shafts have their walls starting from the grand floor and continue to one meter above the roof. These walls are built with bricks smoothly plastered with

no projections inside and contain only the service pipes. The ventilation shafts have glass covers 30 cm. above the end of the walls and projecting 30 cm. beyond the outer face of the walls in order to allow the ventilation without permitting to rain to come in.

All external windows have rolling shutters and fly-wire to protect rooms from insects.

The sanitary installations are richly provided. Every room has its own bath-room and each floor has a general lavatory. All pipes reach the bath-rooms through the ventilation shafts and may be inspected easily. The boiler which is in the basement provides hot water to the whole building and receives its water from the cistern which is on the top of the stair-case. The cistern also supplies cold water to all bath-rooms. The dirty water is gathered by means of glazed pipes and manholes to a big septic tank dig at about 30 meters from the northern side of the hotel.

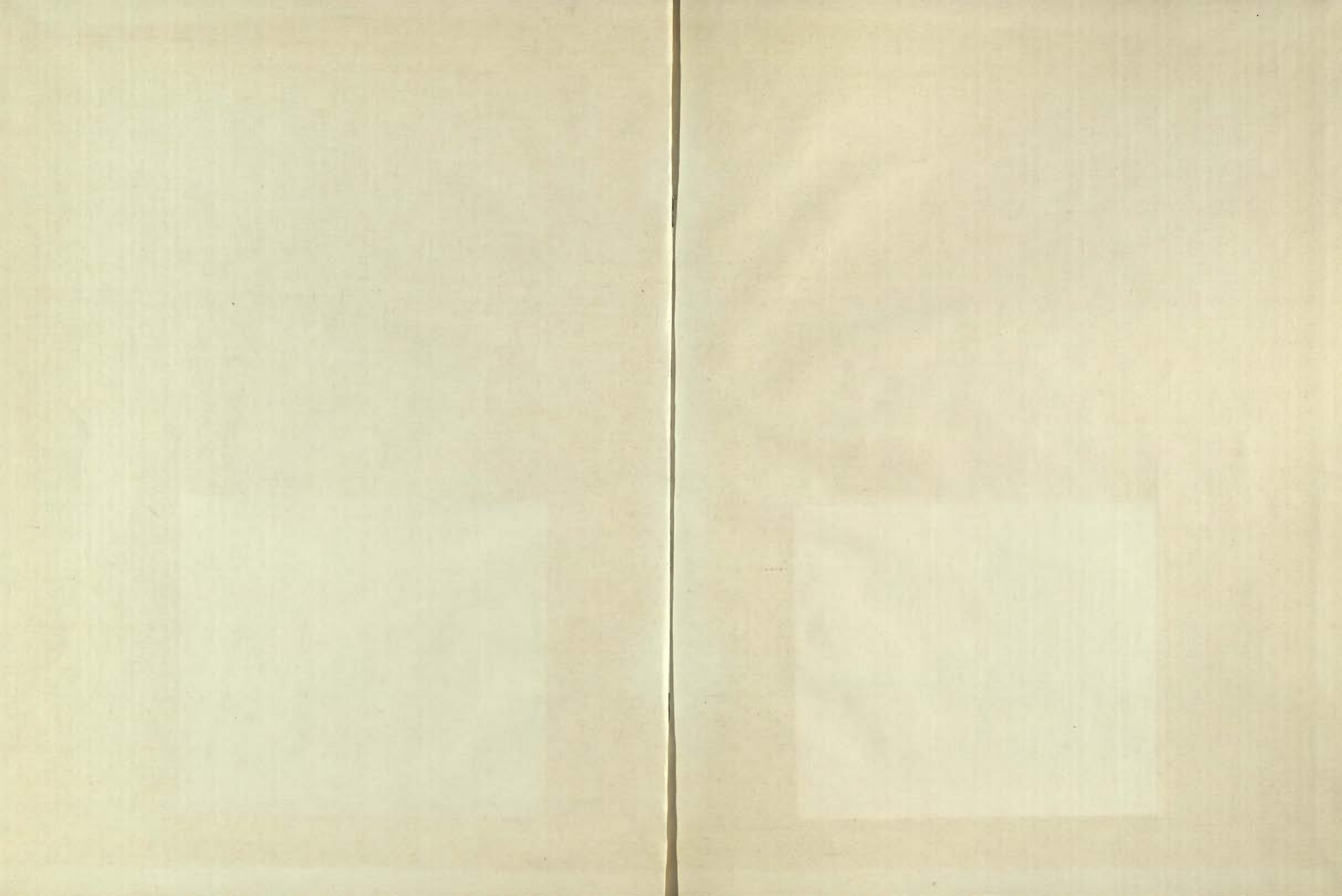
In front of the main entrance of the hotel there is a flower garden with a water fountain; a curved road 5 meters wide joins the entrance to two points of the main road and passing near the terrace reaches the garage by a wide space where several cars may park.

A tennis court is provided for the clients and outside people not very far from the hotel.



C O N C L U S I O N

In general this hotel having all accommodations which provide comfort to its clients, such as large spaces, big salons, well planned rooms with complete baths, wide openings, thick walls, insulated roof, service stair-cases, elevator, etc.. is the type of building which Lebanon needs for the flourishing future of its Summer resorts.





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