

a ski and summer resort hotel  
for "the Cedars" in Lebanon

submitted in partial fulfillment  
of the requirements for the degree  
of master in architecture

to professor lawrence b. anderson  
head of the department of architecture  
massachusetts institute of technology  
july 20, 1950

by raymond salim ghosn

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Raymond S. Ghosn  
Cambridge  
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July 17, 1950

Professor Lawrence B. Anderson, Head  
School of Architecture and Planning  
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Cambridge, Massachusetts

Dear Professor Anderson:

In partial fulfillment of the requirements for  
the degree of Master in Architecture, may I submit  
this thesis entitled "A Ski and Summer Resort Hotel  
for the Cedars in Lebanon".

Respectfully yours,

R. Ghosn

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## Foreword

I was raised in Alexandria, Egypt. My parents are both Egyptian citizens. My father came from Lebanon, settled in Egypt long before I was born. My mother was born in Egypt but from parents who came originally from Lebanon. With this parentage and early roots, I had the occasion of visiting Lebanon several times during the summer and grew more and more interested in its summer resort problems, until the time when I went to the American University of Beirut for college studies. There I had the occasion, for the first time, to see Lebanon in winter, and especially to visit the Circus of the Cedars all buried under the snow. I was impressed by the beauty of the place and was unhappy at the idea that it was not enjoyed by many more people. Since then I carried with me the feeling that something could be done there. When, this year, the time came up to choose a thesis subject, my interest took me back to the same thought. I inquired about the possibility of making a study for a ski and summer resort hotel for the Cedars

and was amazed and fortunate to find out that the idea had been brought up in 1938, that the government had offered a small reward to the company that would erect such hotel, and that the S.E.T. , Societe d'Encouragement au Tourisme, had made a survey and a proposal to the President of the Republic to the effect that a land grant should be offered toward the same goal. Proposals were even made as to the program to follow for the building itself (see Appendix #III). However the project seemed to have cooled down for some reasons, the war being one of them. But my interest was still there and today that the administration in Lebanon is awakened to the fact that winter sports will add much to the resort industry. I thought that to study something that is needed and real will add much more flavour to my thesis endeavors.

My first aim was to create something that would allow people of varied incomes to enjoy a vacation at the Cedars. However, before this gets to be possible, the center must become prosperous and known so that business ventures of all scale will start in it and it is usually by the attraction and publicity of a good large hotel that such a trend gets started. This consideration dictated the nature of my study.

r. s. g.



A. Introduction

## Lebanon, a Mountain Resort

The Lebanon chain of mountains stretches parallel to the eastern Mediterranean coast in a south west - north east direction, between the 37 and  $38\frac{1}{2}$  degrees north latitudes. Its highest point, above sea level, exceeds ten thousand feet. Its furthest crests are not distant more than twenty-five miles from the coast. It can thus intercept the clouds which are pushed by the west winds and benefit from abundant rainfall on the lower slopes, and snowfall on the higher elevations. A second chain of mountains, the Anti-Lebanon (7600 to 8300 feet high), runs parallel to the first one. In between them lies a high agricultural plane, varying in altitude between 3,000 and 3,600 feet.

At the foot of the Lebanon range, a narrow stretch of plane cultivated land follows the contours of the coast line. A highway runs along the seashore and links such coastal towns as Tyre, Sidon, Beirut and Tripoli and extends beyond the Lebanese frontiers to the north and to the south which are about 120 miles apart. Roughly an area of 4,000 square miles bound by the Mediterranean Sea to the west, the two mentioned

longitudes to the north and to the south and the high crests of the Anti-Lebanon range to the east, constitutes the republic of Lebanon with Beirut as the capital.

Lebanon shares frontiers with the Republic of Syria (capital Damascus) to the north and to the east, and with Israel and Arab Palestine to the south.

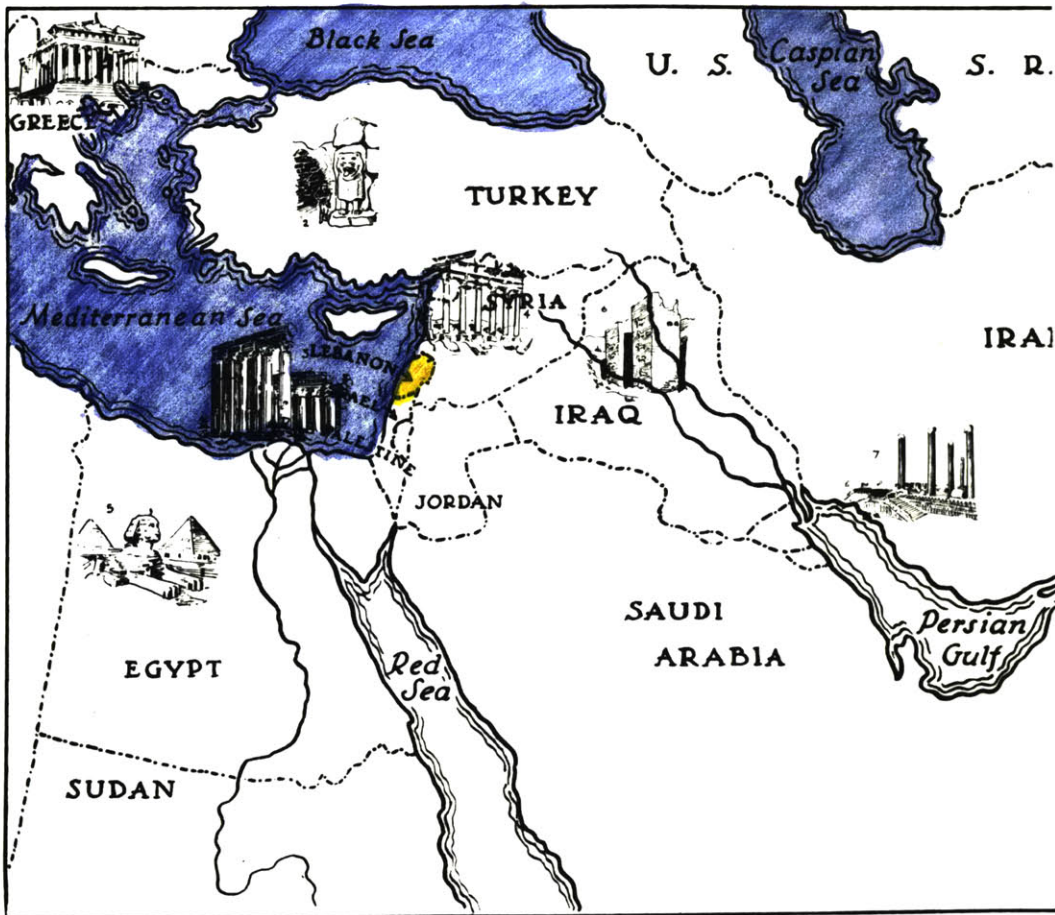
Syria and Lebanon were under French mandatory administration until the end of 1941. The powers and capacities exercised by France were transferred on January 1, 1944 to the Lebanese and Syrian parliamentary republics. The President of the republic of Lebanon is the official head of the executive body, acting in conjunction with his ministers who are responsible to the legislative assembly. He is elected for six years by secret ballot of the deputies. Legislative power is vested in the Chamber of deputies, the members of which are selected by popular secret ballot for four-year terms.

Lebanon is largely of mountainous character and mainly agricultural, with a small number of towns on the coast and a large number of small agglomerations nested in the valleys and on the hills of the elevations. The mountains are easily accessible because of the nearness to the coast and the numerous valleys leading from the coast to the crest line. A developed mountain highway system covers 1600 miles of roads.

The population counts one million inhabitants of which Beirut, a seaport and the largest town, claims 235,000, and Tripoli, also a seaport and the second largest, claims 70,000. Many of the town dwellers migrated at some time or other from the mountain villages to the city and still retain in the mountain their home to which they commute in the summer time, thus creating the first move in the annual summer resorting. Forty five percent of the population lives on agricultural income. As compared to the surrounding middle eastern countries, Lebanon is the smallest in area, (Egypt 386,000 square miles, Syria 54,000 square miles) and in population, for the exception of Transjordan.

The climate: the summer in the coastal section is hot and humid from May to October, with little rainfall. August is the hottest month (mean temperature 83° F at sea level). The winter is cold and damp, from December to March with abundant rainfall (30.4 inches). January is the coldest month with mean temperature 57° F at sea level. Spring and autumn are short and mild. The interior regions have higher temperatures than the coastal regions and the mountain areas. Damascus, at 70 miles from the coast has a mean annual rainfall of 7.4 inches and mean temperatures for January and August of 44° F and 82° F respectively.

Lebanon enjoys the advantages of picturesque high altitudes



while the countries surrounding it are generally flat and suffer from hot and humid summer climates. In the same time the short distances that separate Beirut from the capitals of the surrounding countries make it easy for the inhabitants of the latter countries to change climate within an hour or two of plane ride plus whatever time it takes to drive by car from Beirut to the mountain place chosen. Air distances from Beirut to

Damascus	70 miles
Bagdad	550 miles
Cairo	400 miles

Therefore Lebanon plays the role of a health center which until recently was only a summer health center. Many of the mountain villages have developed extensively because of their resort attraction to both local and foreign resorters.

Beside climate considerations, Lebanon offers historical as well as natural attraction, (the temples at Baalbek, the monuments at Tyre, Byblos, Sidon, the circus of the Cedars, the caves of Kadisha and others).

Because of its situation, its configuration and its economy, Lebanon promotes tourism as a major industry and to this end a Commissariat for Tourism has been instituted by the government to continue and supplement the efforts that the S.E.T. (Societe d'Encouragement au Tourisme) has been and is spending towards improving international tourism in the country, and winter tourism is given its share in this interest.

## Ski and Ski Areas in Lebanon

Among the countries surrounding it, Lebanon holds the monopoly of good snow fields set in beautiful mountain decors. The snow on these fields lasts generally from November until May of each year.

Skiing in this area is relatively a young sport which started fifteen years ago with the foundation of the Alpine Club of France. Since then this sport has become very popular attracting tourists from Iraq, Syria, Palestine and Egypt.

On the map entitled "Lebanon's snow fields and access routes" are shown eight snow areas which provide skiing facilities. Four of these snow fields enjoy more popularity than others for specific reasons of accessibility and nearness, to Beirut while the rest are visited by smaller groups in search of good sport and richer experience. Of the most frequented ones, the pass of Baidar, at an altitude of 4900 feet can be reached in less than one hour by automobile from Beirut. Its ski season goes from January to the middle of March. Its "shovel hill" and "training valleys" are the rendez-vous both for beginners and for champions registered for the official training and the advanced training course. On the other hand the ski center the furthest away from Beirut, "the Cedars" draws its importance from historic and scenic value.

**FROM BEIRUT**

to Syr	120 Km.
The Cedars	150 »
Lakluk	70 »
Faraya	55 »
Sannine	35 »
Baidar	35 »
Baruk	47 »
Hermon	95 »



**LEBANON, ITS SNOW FIELDS**



## The Region of the Cedars

### a) Location and historical value

The region of the Cedars so called because of the presence of a grove of cedar trees, remnant of the ancient "Cedars of Lebanon"<sup>1./</sup> offers a fascinating grouping of crests, ridges, depressions, valleys and slopes, located in the northern part of Lebanon at 38.1 degrees north latitude and 40.1 degrees east longitude.

Vestiges of the antique splendour of the Lebanese forest, the cedar trees frequently mentioned in the Old Testament have taken refuge in a circus of mountains at 6500 feet above sea level, in the shade of the highest crests of the Lebanon mountains. Some of the largest cedars attain a girth of over 40 feet. This grove forms a compact group of four hundred trees with age varying between two thousand years and four hundred years. The white snow which hugs them in winter time enhances their beauty. "The Cedars" region is accessible all year round by a road running along the upper edge of the Kadisha canyon. On the sloping sides of the latter are found convents of monks and caverns of hermits. On the same slopes, man made terraces present an interesting sight of contour ridges. The Circus of the Cedars dominates by nearly 1600 feet the bottom of the Kadisha valley from

1./ History of the Cedars (in Appendix)



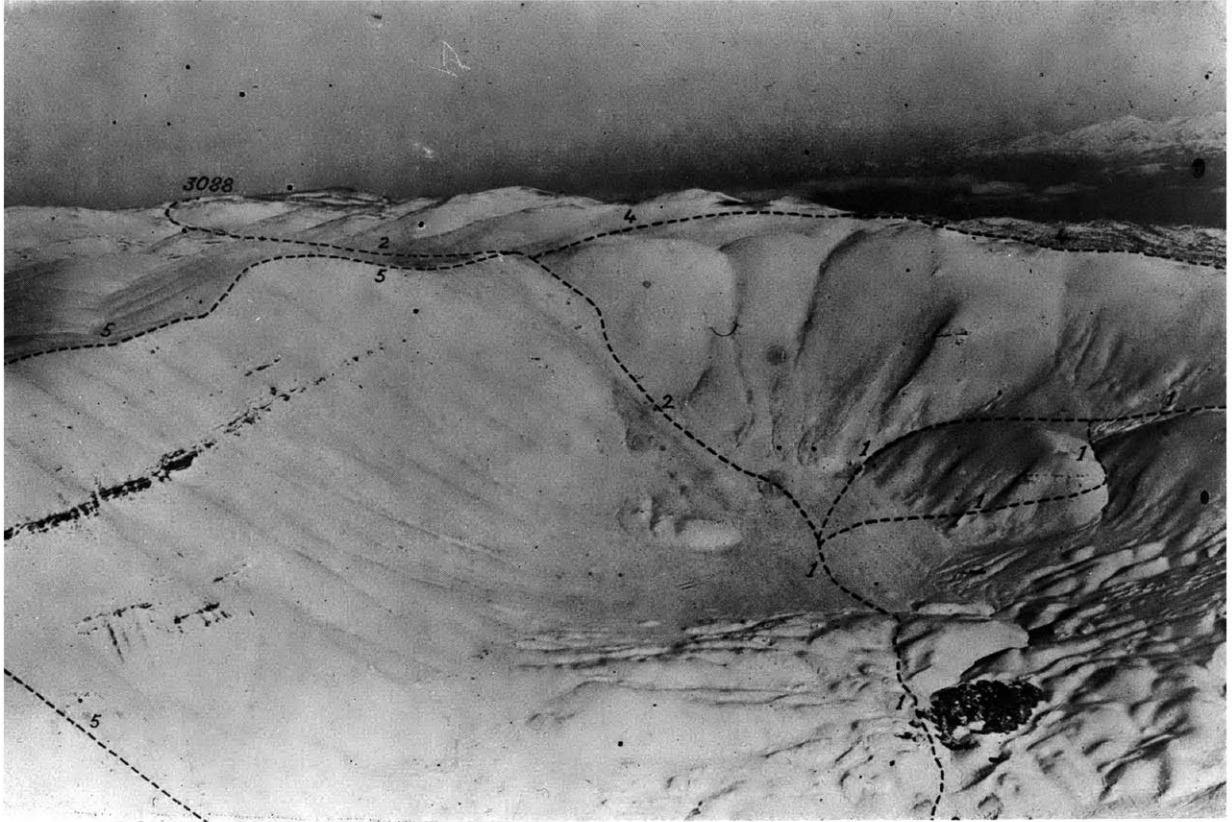
where arrives the visitor. This sudden change in altitude adds to the scenic value of the region. In few minutes, the visitor passes from a green valley with red tiled roofs to a new world of white snow. In this vast white bowl inclined toward the sea, the only dark spot, the grove of cedars, with its legend, is presented as an offering to the visitor.

The Cedars are just a handful of trees but when a heavy snowfall has covered their branches with frost and bent them, a skier, promenading between the enormous trunks, in the blue light of the underwood and through a perfect silence, is wrapped by the captivating charm of the forest.

The lacy road leading to the circus is facing the south and is thus easily cleared out of snow. At the level of the grove it passes first on the left of one hotel and 2,000 feet later in front of a second hotel; then it borders the grove, and after that it fronts a building used as the ski military center. During World War II ski troopers were trained at this center, for the European war front. After having passed the circus, the road rises to a pass at 8600 feet altitude. Consequently the skiers can go up higher and higher following the snow till late in the spring. Beyond the pass they can find fields they had not explored and more adventure.

b) Access routes

The only way to reach the circus of the Cedars at present



from any point in Lebanon is by motor car. Three roads branch out at different points from the highway which runs along the coast. Thus the roadway distances for a tourist coming from Beirut vary between 72 miles and 90 miles. The road which passes by Bishareh, the agglomeration at the bottom of the canyon, is kept clear of snow continuously.

## c) Climate

### 1. Temperature

The curve of temperatures recorded at the Cedars during the year 1937-1938 from December to April shows that night temperature is nearly constantly below freezing point with two levels as low as  $-10^{\circ}$  C (or  $14^{\circ}$  F) and that daytime temperature often exceeds the freezing level with an average of  $4^{\circ}$  C (or  $38^{\circ}$  F), a minimum of  $-14^{\circ}$  C (or  $5^{\circ}$  F), and a maximum of  $+6^{\circ}$  C (or  $41^{\circ}$  F).

At higher altitudes, the two extremes of temperature are still bigger than at the "Cedars".

Summer temperatures in normal periods vary between a minimum of  $5^{\circ}$  C to  $8^{\circ}$  C (or  $41^{\circ}$  F to  $46^{\circ}$  F) and a maximum of  $18^{\circ}$  C to  $20^{\circ}$  C (or  $65^{\circ}$  F to  $68^{\circ}$  F). During periods of hot spells, the maximum may reach  $86^{\circ}$  F to  $95^{\circ}$  F.

### 2. Relative humidity

55% in summer



2. Relative humidity (cont'd)

62% in winter

3. Rainfall

30 to 40 days of rain in winter only

30 to 40 days of snow

d) Sky and winds

The same snow chart shows that out of 108 days, from December to April 1938, 46 were clear, 62 were cloudy, six days had light and average winds and seven days had heavy wind. The force of the wind increases considerably as one goes up the slopes.

The dominating winds blow in the south-west direction and their strength reaches some times 40 m.p.h.

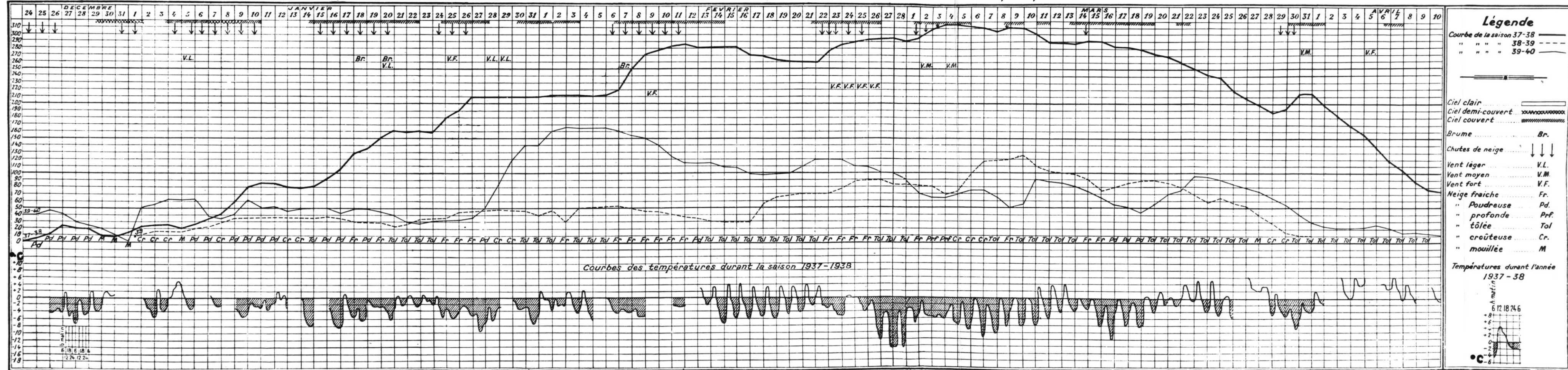
e) Snow

The amount of snowfall varies considerably from one year to another. However snow persists a long while through the winter. At the highest altitudes the first snowflakes appear around the first of November and snowfalls can be seen in May and June.

The snow chart attached herewith shows snow heights attained at "the Cedars" during the consecutive years from 1937 to 1940. This comparison between three years, one rich in snow

CM.

### ENNEIGEMENT AU CENTRE MILITAIRE DE SKI DES CEDRES DURANT LES SAISONS 37-38, 38-39, 39-40.



THE SNOW & TEMPERATURE CURVES AT THE CEDARS



(1937-1938), one poor (1938-1939), and one average (1939-1940) gives a fairly good picture of the snow conditions in this main ski area of Lebanon. The maximum heights of snow reached in the latter area, during the above consecutive three years are 10 feet, 5 feet 3 inches and 4 feet respectively.

The chart shows that year in and year out skiing can be practiced at the Cedars at least from New Year's Day to the first days in April. For the worst years, the skiers can put on their skis at the doors of their hotels from January 1 to April 1, (three months); and in the good years they can do so from December 25 to April 25 (four months). The best period which enjoys the biggest snow heights, more numerous snowfalls, less mist and frequent sunshines goes from February 15 to March 15.

On the slopes of the Circus and on the surrounding crests which are reached easily by the climbing up road, the skiing season starts earlier and can extend till June. Skiers can then enjoy a spring snow, longer and warmer days and when down from the crests they can enjoy the pleasures of summer time.

Variation in snow persistence is also affected by the ardent spring sunshine which melts the snow on the slopes exposed to the south and southwest.

f) Why a ski and summer resort at the Cedars

Since resort and tourism are a major industry for Lebanon, it is necessary to exploit them fully and intelligently. The mountain hotel business in the country has hitherto been directed mainly toward summer resorting. The latter has developed and grown haphazardly and one might venture to say inefficiently in certain areas. Most of the mountain agglomerations which today enjoy a certain reputation as summer resorts, owe their development and economical well-being to the building of a large hotel by some well-spirited citizen who, after a life of business speculation is willing to retire with a monument to his name. Very often the venture proves to be disastrous for its owner but nevertheless a whole region with its inhabitants lives on the industry created by this bold attempt. One of the causes of inefficiency lies in the fact that mountain hotels are a large real estate investment and if they are operated only for the short duration of the summer season, which is two and one half months, and closed for the rest of the year, a great real estate loss is bound to result. The same argument holds for all the smaller business ventures that thrive parallel to the hotel in the rest of the community.

In the light of the fact that a certain portion of the mountain inhabitants draw their income from the vacation

industry, a certain effort is being made by the S.E.T. and the government to keep this industry running all year round. With ski development continuously growing as a winter sport, the resort hotel business in Lebanon can become a winter as well as a summer proposition. Therefore the need exists for a resort hotel to be built in a region of pleasant winter and summer surroundings. Besides if this hotel is located in a site of scenic value and historical importance, it becomes an asset toward enhancing international tourism.

Of the eight snow regions mentioned in the preceding paragraphs, the Circus of the Cedars presents the richest possibility for its scenic, historical and climatic value as well as for its adequate snow condition for winter sports.

At the present time, there are two small hotels located at the Cedars. Both hotels equipped with central heating were built to cater to the small number of ski addicts in the winter time, and in the summertime they received occasional week-end visitors, moved by the historical background of the area. One of the hotels includes 38 double bed rooms and 14 single rooms, and the second one 36 double bed rooms and 4 single rooms. No dormitories are to be found in either one of the two hotels.

No major direct or indirect effort has been made toward creating in this region a prosperous and attractive summer

resort. The fact that the region is reached only from the coast to the west and that the road joining it to the east is not yet in full use, accounts for one reason. The lack of publicity and showmanship is also another reason. Moreover the lack of green areas, besides the grove of Cedars gives an inhospitable feeling.

As of today one can count on 200 to 300 summer patrons between July first to September 15. The presence of a new hotel equipped with summer sports and entertainment will increase this number.

In the winter time from January 20 to April 30 the Cedars can count on 500 patrons with a duration of stay of 10 days each as an average.

The season of International Tourism extends from September to November and from May to June and brings 500 patrons intermittently.

The need of a ski and summer hotel at the Cedars exists, but it must be an attractive hotel, surrounded by its own park and summer sports so that it will be a successful venture in the summer as well as in the winter.

**B. The Problem**

## Resort Planning

The hotel business has the special characteristics of a service industry. It deals in a fixed product whose use must be continually resold and its selling instruments include such variables as the color of bedroom walls, the feel of the lobby carpet, the voice of the girl at the switchboard, the assistant manager's memory for names, the headwaiter's demeanor and the amount of noise emitted by the plumbing.

The importance of these intangibles and variables tends to be obscured by the hotel building itself with the result that investors have frequently entered the industry under the impression that they were engaging in the real estate venture instead of a complex and specialized business. Behind the construction of many hotels there is a widespread ignorance about the real nature of the business and sometimes it is backed by an upsurge of community pride. One important factor of the hotel business is the planning of the building in which the selling of the hotel commodity is to take place. As quoted from Mr. Byron Calhoun, vice president of Inter-

continental Hotels Corporation, "Other industries build a product. In the hotel business, once the plant is built, the product has already been created. What the hotel man has to sell is the building he operates. It is of incredible importance that it be the right building."

The word "hotel" implies: a business concern selling the commodity of food and lodging in pleasant surroundings. A careful planning of the surroundings and an efficient management and personnel to work within them are two main factors in the success of the business.

For a resort hotel, besides good food, lodging and pleasant surroundings, the guests on vacation have to be entertained all day and part of the night.

To vacationing guests who might stay anywhere between a weekend and a whole season, the resort hotel must offer:

- a) comfortable lodging
- b) good food
- c) abundant recreation opportunities
- d) a site of special natural beauty or historical significance
- e) a congenial atmosphere for guest to guest relationship and guest to management relationship

The architect's responsibility in this business is to

create the plant that will make possible the efficient achievement of each one of the above requirements. Then the management is responsible for putting it to the best use.

The functional relationship of the different elements that go into making a hotel is basically the same whether it be a transient or a resort hotel.

However resort hotels are often remote from urban centers, their location being determined by the terrain. They require on one hand less ballroom and banquet accommodations, but on the other hand more diverse amusement and recreation facilities both indoor and outdoor. Life in a resort hotel must be interesting every season of the year, with exciting sport or lazy restful days, gay dancing or dreamy quiet, bathing in the pool, playing tennis or golf, horseback riding or hiking to nearby spots of interest.

In some instances, however, the resort hotel is located on outskirts of urban centers. It is then designed to offer banquet and private dining room facilities as well as resort facilities. The most recent example of such hotels are the Caribe Hilton in San Juan, Puerto Rico, the Tamanaco Hotel, in Caracas, Venezuela and the Panama Hotel, catering mainly to American businessmen off to the subtropics. The Caribe



Hilton has a very large area of public space for its 300 rooms. This public area spreads horizontally over two floors.

Resort hotels should offer the amenity virtually every transient hotel lacks: space. They must count more numerous and spacious public areas. City hotels are under the same pressures as other downtown buildings where it is necessary to jam every possible room into the building. The architects Holabird, Root and Burgee have set themselves a top figure of 6,000 cu. ft. per room as the hotel allowance for all facilities in the hotels for 400 rooms and more. Some operators think the optimum hotel size is close to 500 rooms; others put it closer to 1,000. For profitable investment, experience shows that the resort hotel can contain as few as 50 rooms. Timberline Lodge, in Timberline, Oregon accommodates a maximum of 100 guests.

The guest rooms of the resort hotel are slightly larger than in transient hotels. A good example of this fact is the guest room of the Caribe Hilton which is basically the same in plan as the guest room of the Terrace Plaza in Cincinnati but covers 25% more area, with, in addition, a balcony outside of each room.

Whether a hotel is classified as transient, resort, residential,

its basic planning unit and economic yardstick is the room. Once the basic room has been designed, column spacing can be determined with maximum efficiency.

The guest room is so important because room rents are the backbone of the hotel's income. They normally account for the 70% of the hotel's receipt. The hotel should retain 70% to 75% of its room receipts as an operating profit (before rent, taxes, interest, depreciation and insurance). The corresponding rates of operating profit would be food service 20%, beverage 30%.

Hotel design, like hotel economics, begins with the room and it is here that the close interlocking of these two factors is most apparent. The cost of a hotel building is directly related to its size. Size in turn is a function of individual room dimensions and the total number of rooms. Whether the individual room is large or small depends to some extent on the type of clientele to be sought, but the designer can do a great deal to save space by an intelligent approach to furnishings.

The question of design is closely tied to the vexing problem of room rates as well as to the overall problems of competition. Intelligent design can multiply the number of silent services rendered the guest in his room, create an

impression of greater luxury and hence establish a psychological as well as material foundation for the price charged. The traditional hotel bedroom borrows its furnishings directly from an ordinary home bedroom. The furnishings are generally so disposed that it is difficult for the guest to use the room for anything but sleeping. A new approach to interior furnishing of the hotel bedroom has been attempted under the name of the "combination room".

Combination living-bedroom applies to the theory of the one room apartment that a small space is to be used for variety of purposes. In this room the beds serve equally well for sleeping or sitting. The great virtue of the convertible room is that it provides most of the amenities of the suite in half the space and it opens the possibility of extending some elements of luxury accommodation to medium price rooms.

First of the major hotels to give the combination room a large scale tryout was the Washington Statler\*(1942) which allocated 55% of its rooms to this type. Following came the Terrace Plaza in Cincinnati and shortly after the Caribe Hilton in San Juan, Puerto Rico, which allocated all their rooms to this type. The rooms of the Hotel Panama are on the same principle. In the Terrace Plaza convertible bedroom, a large unit screening the entrance to the bedroom, contains a metal lined suitcase storage, drawers and a desk.

\*See Appendix #V

Phone, radio and other services are built in.

With vacation time, especially in winter snow areas, good food is keenly wanted and appreciated. In a resort hotel a guest is far more critical of food and service, far more demanding, much more likely to voice his displeasure than in any transient hotel, and still more, than in any outside restaurant. It is the tradition among hotel keepers that provision of food and drink is obligatory, that is, a dining-room is installed in hotels not as a means of making a lot of money but because they have to be installed. In a resort hotel good cuisine is one of the selling points that contribute to the reputation of the place. Behind the unsatisfactory performance of many hotel dining-rooms are a number of factors, size of kitchen (most often too small), location of kitchen, (restaurant and kitchen placed at different levels make effective service almost impossible), equipment manufacturers more interested in product sales than in efficient food preparation.

If a hotel dining room is losing the main trouble lies also in management. Planning, cost accounting and showmanship are ways to restore the earning power of dining room facilities. Example: the Bel Air Hotel, located some miles from the center of Beverly Hills, has a dining room and bar made so attractive that it is competing actively with restaurants like the highly

publicized Mike Romanoff's.

Outdoor dining-terraces, covered or uncovered in addition to the indoor dining area, can be a means of varying the daily living experiences of patrons.

Comparative isolation also makes necessary more complete provisions for the storage of large quantity of supplies, both perishable and unperishable.

For urban hotels, store rentals hold up most successfully in bad times. The Terrace Plaza in Cincinnati has taken great advantage of this consideration by using 50% of its cubage as subleased storage area. In resort hotels, stores are practically non-existing. However because of the isolated nature of the place, certain commodities are necessary and convenient to the guests and space subleased for shops to sell them can become a source of revenue to the hotel. For a ski and summer resort hotel, a sporting goods shop with men's and women's apparel is of primary necessity to supply the guests with their needs for pleasant out of doors recreation. News, cigars, candies and drugs are demanded. The guest likes to buy some souvenirs locally made for the area. A barber shop and a beauty parlor will take care of those who stay at the hotel for a while.



## The Architectural Requirements

### a) General

The aim of the problem is to study the design of a building that would serve as a resort hotel for winter and summer use. The number of guests to accommodate within the structure and at the time of a full house is of 230 guests to be divided between rooms and dormitories. Together with the hotel structure, a group of cottages using its food and recreation facilities and accommodating 40 guests will raise the total number of patrons up to 270.

All guests will be arriving by cars, either privately owned or chartered for the purpose. (The business of a certain number of taxicabs in Lebanon consists in driving people long distances for fixed rates). A hotel-owned station wagon service will shuttle back and forth to the nearest town to pick up people arriving there by buses and departing from the hotel without cars.

There is therefore a need for a garage service and parking under cover for 40 to 50 automobiles.

In the wintertime from January 20 to April 30, the patrons will be mainly after winter sports and will come from the surrounding local towns and the surrounding countries to

spend an average 10 day vacation. In the fall and spring time international tourist visitors will come in groups, intermittently for short stays. In the summertime it is expected that the hotel will attract summer resorters from the surrounding countries to spend anywhere between a weekend and a whole season, as they actually do in the other mountain resort centers. The hotel will expect no guests in the first part of December, a period which will be used for maintenance repairs.

Skiing alone in winter and historical value of the Cedars in summer cannot be relied upon to keep the guests interested and contented. A certain number of indoor and outdoor activities must create the vacation atmosphere which the guest unconsciously expects.

In the wintertime, the hotel must provide indoor a certain winter feeling of compactness, while in the summertime, facility for indoor-outdoor living will bring the required feeling of openness.

Since a ballroom and a banquet room would not be used frequently enough to warrant their building, the spaces of the dining room and of the lounge should be flexible enough to afford a combination toward their use for scheduled activities. Bedrooms and main public spaces should get



their share of the sunlight and of the view.

The personnel, especially picked for the service, will live in the hotel except for peak times when a certain additional day force will be hired from nearby agglomerations.

Therefore provision should be made for lodging, boarding, and lounging space for the hotel staff.

b) Indoor

Public space: Normally in a transient hotel, the cubage of the public space should be held to 40% to 45% of the total cubage.

- (1) Entrance area: a convenient entrance area should be devoted entirely to arrivals and departures of guests. It includes the registration desk, the cashier's, the switchboard, the bookkeeping, a baggage checkroom and a waiting space for the doorman and car attendant. In a hotel of 100 rooms or less, one clerk handles registration, cashing, mail and information.

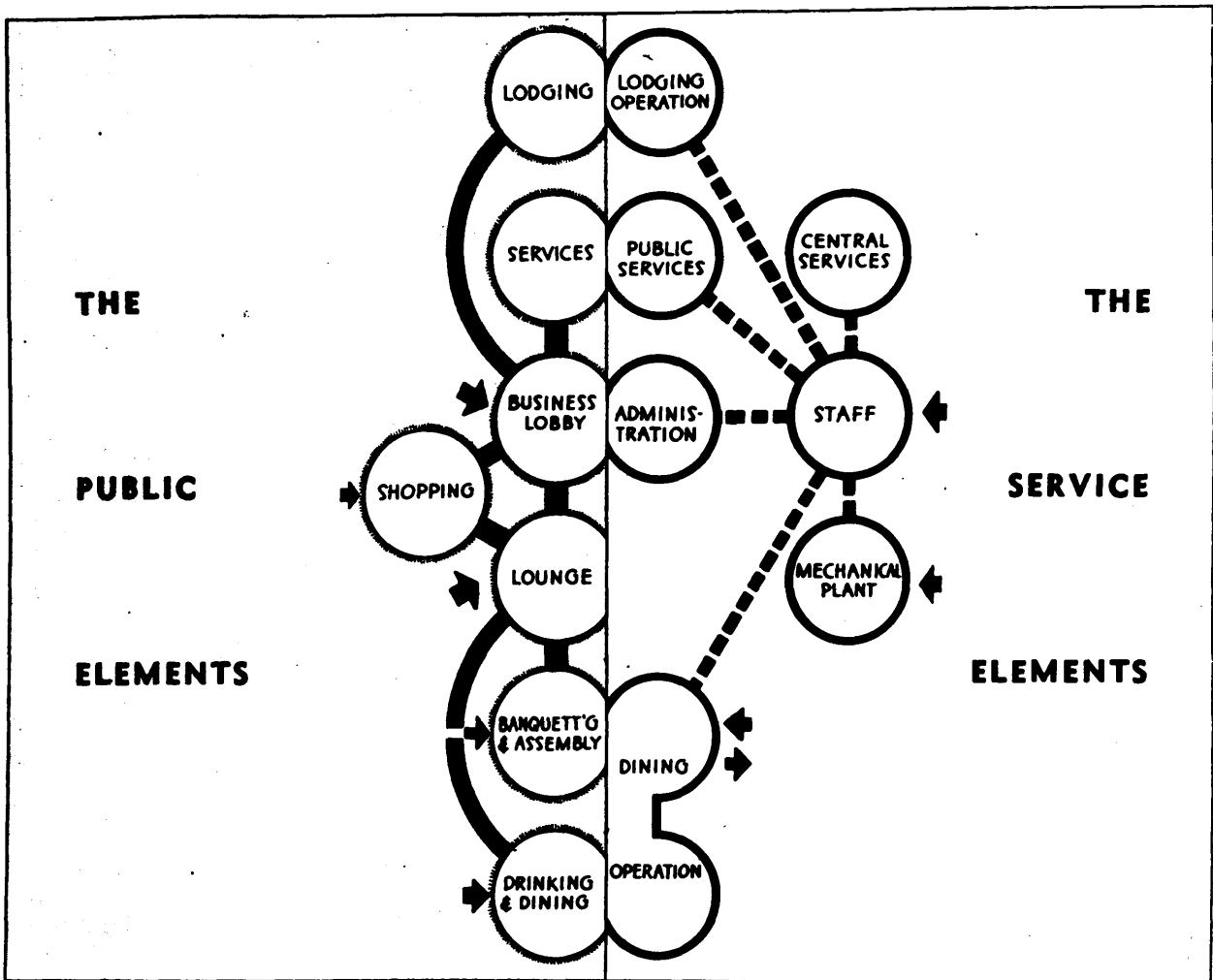
Executive offices should find a place in the plan, as shown in the diagram of adjacency. As the hotel increases in size, the functions of the manager's office are delegated to other departments such as maitre d'hotel, executive assistant manager, publicity manager, etc. In the present case an office for the manager and office space for the social host and the restaurant manager must be provided.

After registration the guests prefer to find the

stairs and elevators to their rooms placed conveniently close by and not to have to cross a lounge before reaching them.

- (2) Lounge: for a ski resort, the lounge should provide the possibility of gathering around some fire after a day of sport.
- (3) Writing and reading space, off the main lounge.
- (4) Music room with piano and radio.
- (5) Card and chess rooms flexible enough to afford combination of spaces.
- (6) Bar
- (7) Cocktail lounge without barstand.
- (8) Game room with ping pong tables and billiard tables.
- (9) Children's room for indoor play during the winter time. This room could also be used for children's movie projection and theater. Children's meals will be served in this room too.
- (10) Sports room for skiers in winter and golf players in summer. This room, off the lobby, and placed more conveniently off the entrance area, is where the skiers wax and repair their skis, and leave them while not in use. This room should be reached easily by skiers coming from outside, through a covered porch where skis could be left standing for a while during the daytime.

### 3. Organization of PUBLIC and SERVICE Elements



## THE HOTEL AS AN ORGANISM

By ROBISON HEAP

THE HOTEL is primarily the direct response to the traveler's need for lodging and entertainment. Secondly, it is a center for conventions, balls and banquets, formal and informal dining, dancing and drinking. An understanding of the organization required by these varied activities is a prerequisite to good hotel planning.

The approach to such an understanding here suggested is based on a primary distinction between the action patterns of patrons and staff. The three diagrams together with the accompanying legends are largely self-explanatory. Diagram 1, relating to staff only, identifies six sub-patterns: central services, lodging operation, public services, administration, dining operation and mechanical plant; and shows how each flows from the staff center. On this flow system are superimposed other relationships, such as (1) that between the central housekeeping unit and the chambermaid groups on the various guest room floors, and (2) that between the staff center and the staff dining room. Other superimposed relationships will readily occur to the

designer and will vary with the individual problem.

Diagram 2 is limited to the action patterns of patrons. Arrows indicate points of origin for various sub-patterns, such as those originating at the business lobby, lounge, banquetting and assembly foyers, coffee shop and shopping center. Because of the number and variety of sub-patterns of patron activity it is essential that all of the action centers (with the exception of the services and lodgings, which are controlled by the business lobby) be directly accessible from the exterior. It should also be possible for each activity to flow through all of its stages without crossing or conflicting with any other activity, or on the contrary to join at any stage with another activity. This analysis clearly indicates the need for open and flexible planning with multiple intercommunication.

Diagram 3 shows the combination of public and service elements indicated in the preceding diagrams into a single overall grouping of the various action patterns composing the hotel-as-a-whole.

**LEGEND**

**Staff**

- 1. Administration
  - a. Time clock
  - b. Paymaster
- 2. Services
  - a. Rest rooms and lockers
  - b. Toilets

**Central Services**

- 1. Housekeeping department
  - a. Public areas unit
  - b. Guest rooms unit
- 2. Laundry
- 3. Repair shop
  - a. Carpentry
  - b. Painting
  - c. Upholstery
  - d. Mechanical

**Lodging Operation**

- 1, 2, 3 and 4. Housekeeping sections for each guest room floor

**Public Services**

- 1. Porter
- 2. Check room
- 3. Valet services
- 4. Other services (See legend for Organization of Public Elements for tabulation)

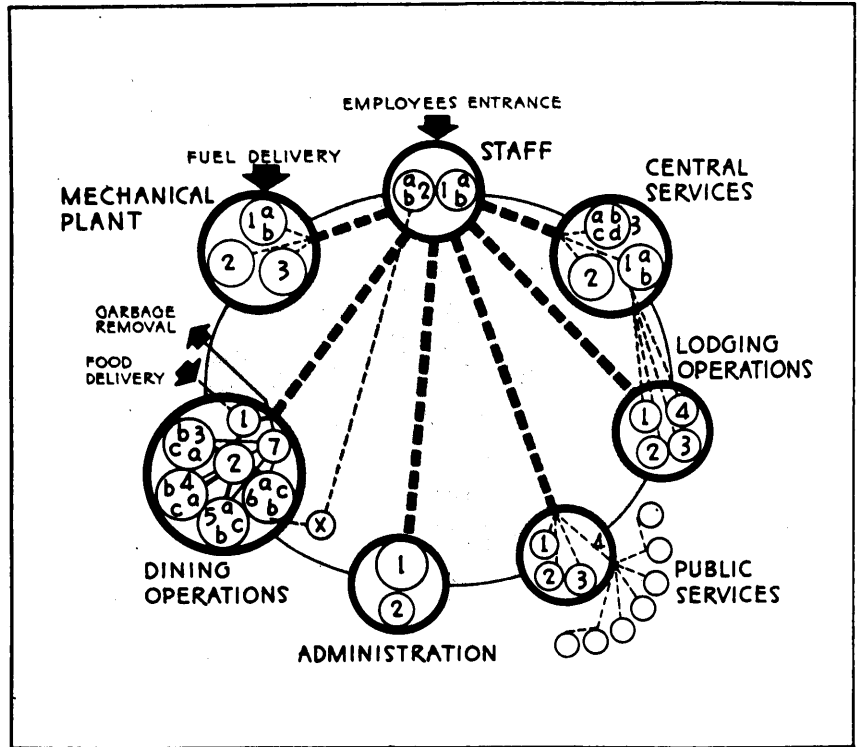
**Administration**

- 1. Administration offices
- 2. Registration desk, cashier, etc.

**Dining and Banqueting Operation**

- 1. Food receiving room
- 2. Food storage and basic preparation (bakery and ice cream freezing)
- 3, 4, 5 and 6. Kitchens
  - a. Preparation (other than basic)
  - b. Serving
  - c. Dish washing
  - x. Employees' dining room
- 7. Garbage freezing

**1. Organization of SERVICE Elements**



**Mechanical Plant**

- 1. Heating plant
  - a. Boiler room
- 2. Air conditioning plant
- 3. Machinery rooms
  - Refrigeration compressors, Elevator machinery, etc.

**LEGEND**

**Business Lobby**

**Services**

- 1. Telephone and telegraph
- 2. Tobacco and newspapers
- 3. Barber shop
- 4. Men's room
- 5. House physician
- 6. Transportation tickets
- 7. Beauty shop
- 8. Women's room

**Shopping**

- 1, 2 and 3. Drugs, haberdashery, airline offices, etc.

**Lounge**

- 1. Peacock Alley
- 2. Lounge proper

**Lodging**

- 1, 2, 3 and 4. Floors of guest rooms

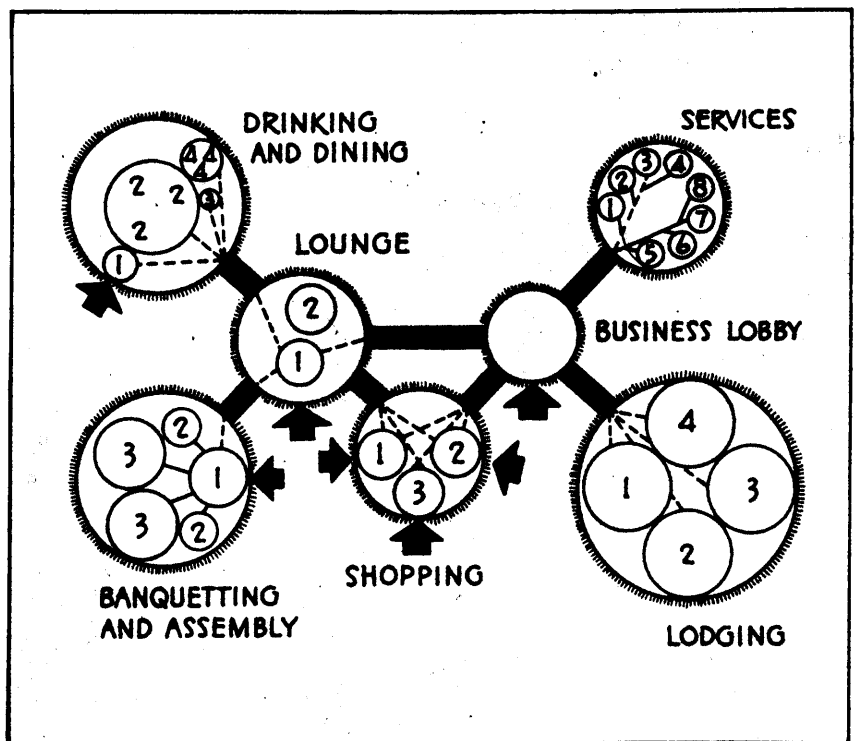
**Drinking and Dining**

- 1. Coffee shop or cafeteria
- 2. Public dining rooms; including dining and dancing
- 3. Cocktails
- 4. Private dining rooms

**Banquetting and Assembly**

- 1. Foyers
- 2. Check rooms and toilets
- 3. Banquet and assembly rooms

**2. Organization of PUBLIC Elements**



- (11) Passenger elevator.
- (12) An outdoor terrace on the south side of the building and facing the best view.
- (13) A first aid room for accidents resulting from out of door sports as well as for employees' injuries is an essential item and should be equally accessible to both guests and staff.

Sub-leased space:

- (1) Sporting goods store.
- (2) Cigars, news, candies, souvenirs, drugs.
- (3) Beauty parlor.
- (4) Barber shop.
- (5) Mail, telegram, transportation, telephone

All the above mentioned elements are essential for an isolated vacation hotel.

Food service: Hotel operators regard the location of the kitchen and dining-room on the same floor as a major technical achievement.

- (1) A main dining-room to seat 200 persons at one sitting. Allowing 15 sq. ft. per seated person with waiter service, the dining room will cover an area of 3,000 sq. ft. It should be kept in mind that the dining room will be used during the winter

and during the summer and should be designed for pleasant use in both cases.

For the provision of private dining space at the rare occasion that it would be required, sectioning off part of the dining-room should be made possible.

(2) Outdoor dining facilities in summertime and whenever the weather permits it.

(3) Kitchen and allied services: Roughly the dining area usually exceeds the kitchen area (including storage) slightly (the Stevens Hotel in Chicago, 123%, the Palmer House 127%, the Boston Statler 120%). But this ratio can vary with the menu the hotel will offer, the availability of food - meat, vegetables - fresh or preserved.

(a) The main kitchen area proper in general covers 45% of the dining areas. In this case it will have a minimum of 1,350 sq. ft. including a food service section, a food preparation section, a food storage and preparation section, a food storage and refrigeration for day's use, a ranges, steam tables and equipment section, a dish and silver washing and storage section, a glass washing and storage section and a linen storage section.

(b) Storerooms and storage refrigerator space usually cover 25% of the area of the kitchen (with refrigerators). This figure is however low in the case of installations where large quantities of food must be held in storage. The storeroom will include dry and canned goods, vegetables and butchery. The refrigerated rooms will keep dairy products, eggs, vegetables, meat and fruits.

- (4) Liquor room
- (5) Silver cleaning room
- (6) Ice manufacture
- (7) Receiving and checking of the food, near the landing platform.

#### Lodging accommodations

- (1) Dormitories: to accommodate sports fans and young people who are usually the good skiers and cannot afford to pay the high prices, dormitories separately arranged for men and for women, with their respective showers and lavatories will be ready to take 30% of the total guest number, in other words 90 guests.
- (2) Bedrooms: 55% of the guests (140 guests) will go into regular double bedrooms and suites.
- (3) Guest cottages: 15% of the guests (40 guests)



will live in ten separate cottages (with 4 guests each) providing them with the facilities of a bunk room, a living room, a bath room and a small bar.

- (4) Staff quarters: (see staff requirements, Appendix 2) Rooms and dormitories for 60 members of the personnel divided into men's quarters with their toilets and showers and women's quarters with their toilets and showers.

A lounge and recreation room with a dining space.

A storage and locker room for extra personnel baggage and day workers.

General service space: For the U.S. personnel wages may take up 35% (Statler Hotel) to 40% of total income. In some foreign countries, lower wages are offset by lower efficiency (one maid is expected to make 10 beds, while U.S. maid makes 14 - 18 beds).

(1) Receiving

(2) Housekeeping

Service dumbwaiter

Linen chute

Garbage chute

Service room at each floor

Linen storage

- Service cleaning and supply closets
- Housekeeper's office
- Housekeeper's supplies
- (3) Laundry and pressing
  - Sorting
  - Laundry
  - Drying
  - Mending and sewing
  - Pressing
  - Linen storage
    - Servant linen storage
    - Hotel linen storage and blankets
  - Valet service
- (4) Three shops with storage for:
  - Carpenter
  - Upholsterer
  - Electrician
  - Plumber
  - Painter
  - Window washer
- (5) Garbage storage and incineration
- (6) General storage
  - Package and trunk room
  - Furniture storage

Summer furniture storage

Summer sports storage

Engineering department:

- (1) Engineer's office
- (2) Boiler plant
- (3) Refrigeration plant
- (4) Water heaters
- (5) Electric switchboard
- (6) Ventilating equipment
- (7) Fuel storage
- (8) Supplies storage (electrical and mechanical)

c) Outdoor

(1) Sporting activities:

Golf course and putting green

Swimming pool with sandy deck and cabins, for

winter and summer use

Children's playground

Tennis courts

Badminton, croquet, deck tennis

Skating rink

Horseback riding

(2) A picnicking area

(3) Complete garage facilities:

Parking undercover for 40 to 50 automobiles

Repair service (sale of spare parts)

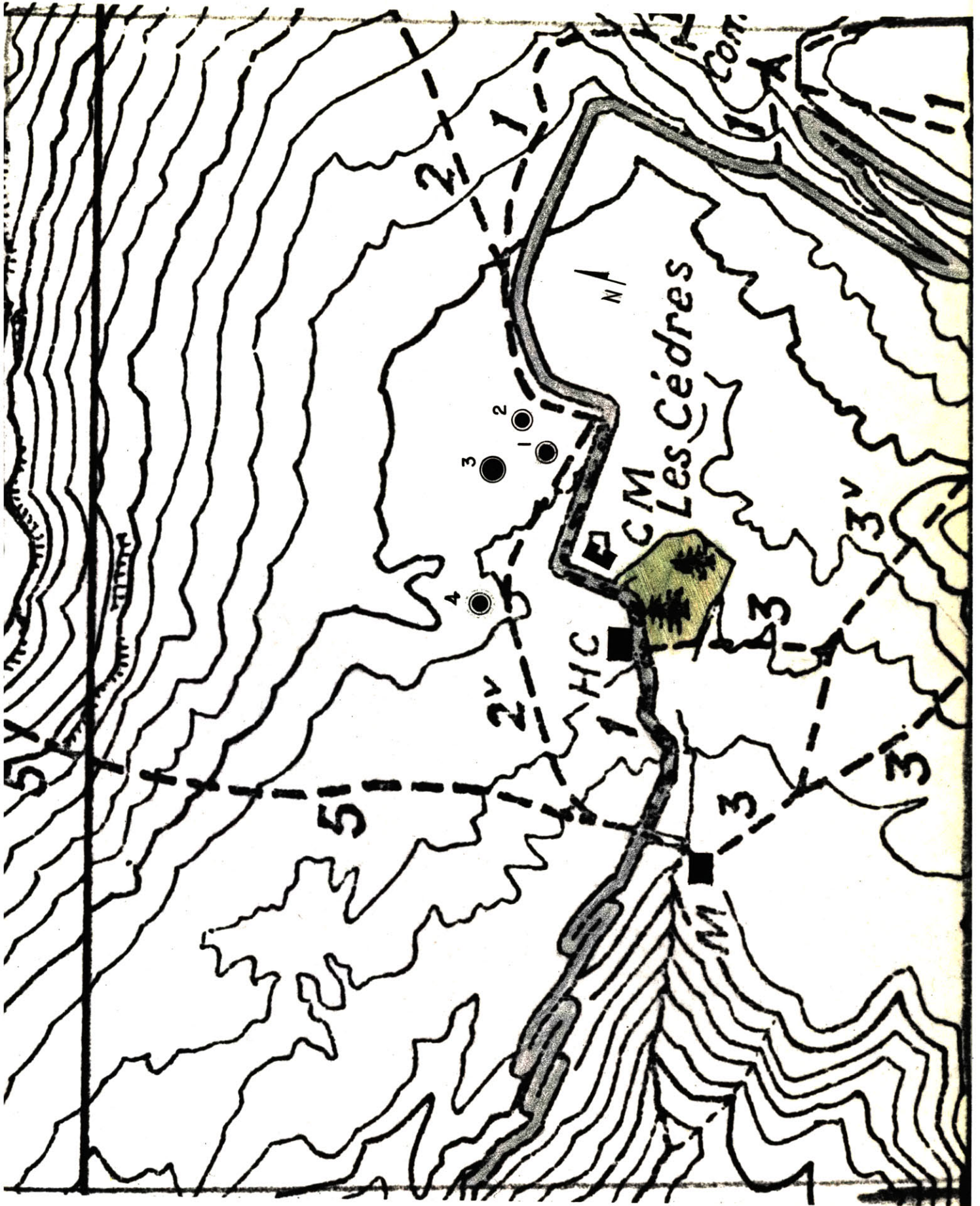
Service station (sale of gasoline, oil and washing  
service)

C. Toward the Architectural Solution

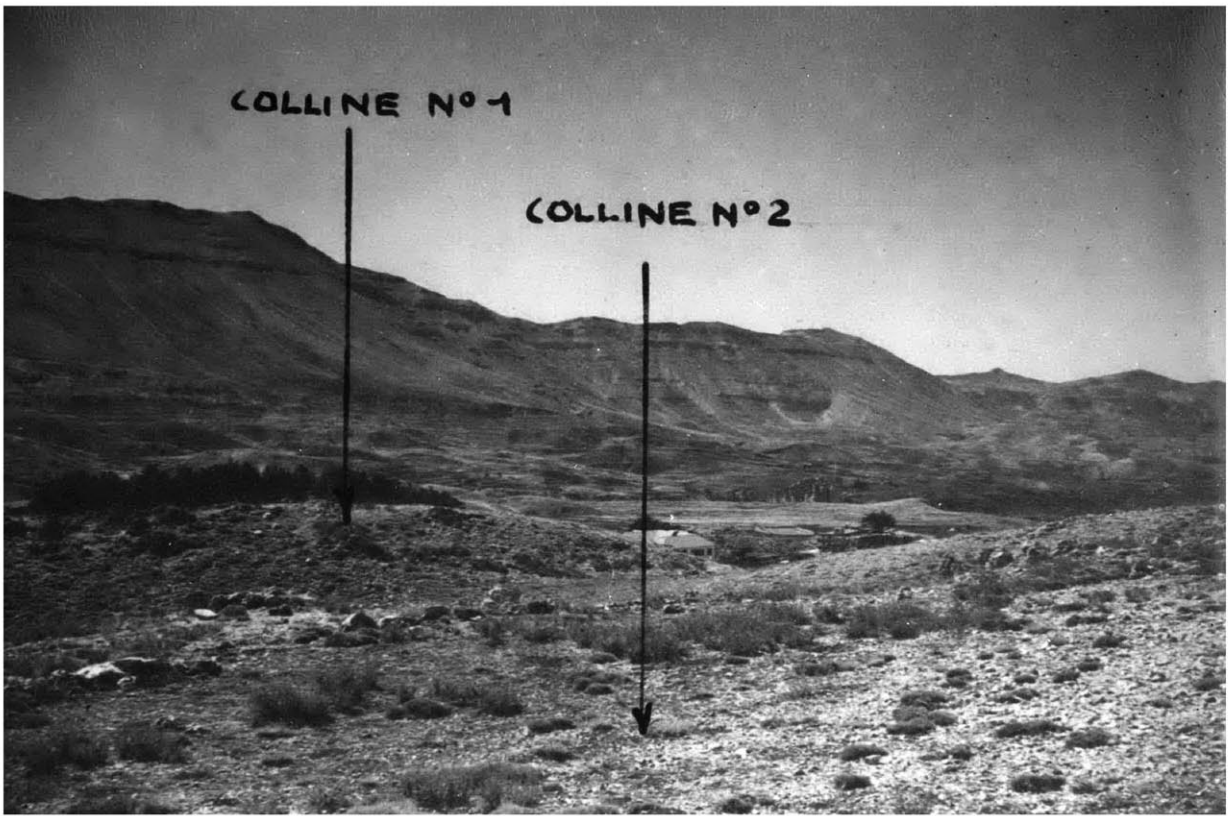
## The Site

The building of a hotel at the circus of the Cedars is subordinated to zoning regulations.

By decree law, the Circus of the Cedars is divided into seven zones and each zone has building restrictions according to the use it is reserved for. One of the seven zones is reserved for hotels, casinos, churches, and other public buildings. Within this zone four hills situated to the northeast of the grove of Cedars and the Canyon of the Kadisha provide possible sites for a good hotel. Being in the same zone the four sites have an equal real estate value. The four sites are shown on the simplified contour map presented herewith (they are numbered 1, 2, 3, and 4) and the photographs following it give a shot of each one of the hills (labelled "colline" on the photographs). Five of the shots are taken roughly with the back of the photographer to the north and looking towards the grove of Cedars, while the fifth one (colline No. 2) is in the opposite direction showing the bottom of <sup>the</sup> circus of mountains.



● THE FOUR POSSIBLE SITES  
 CM MILITARY CENTER, HC & M HOTELS



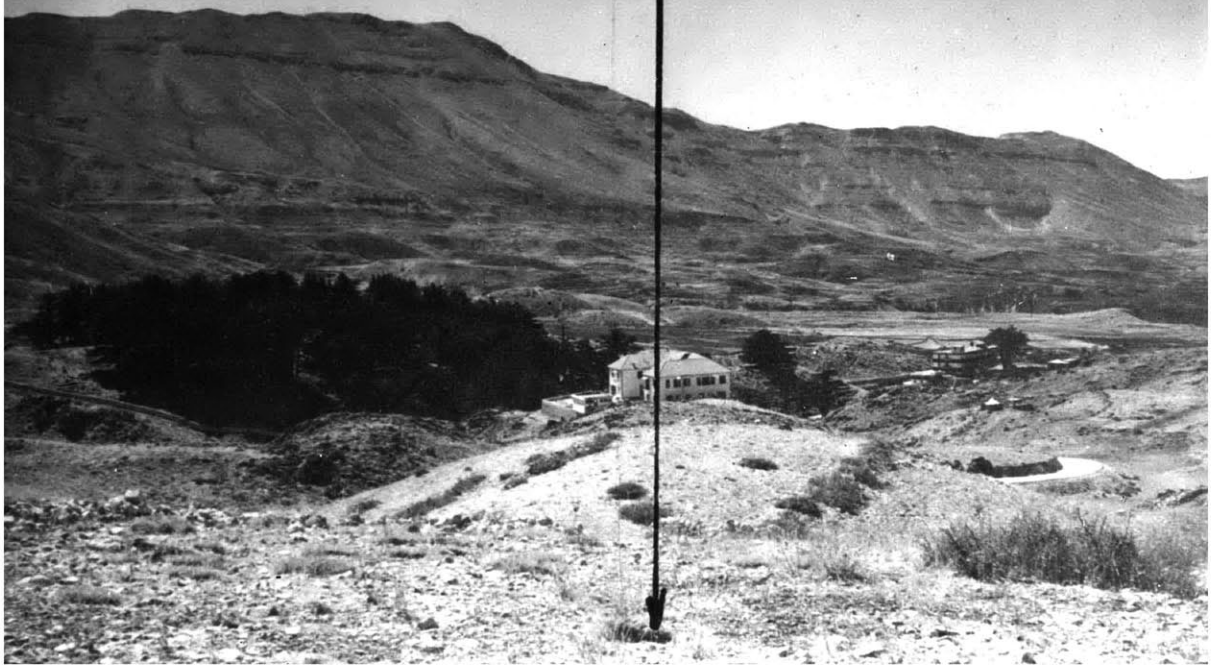


Among the four hills, site No. 3 seems to enjoy the biggest advantages. It dominates both sites No. 2 and No. 1. With the hotel placed on hill No. 3, hills No. 2 and No. 1 can be used as part of its surrounding grounds and being at lower levels than the hotel level, sports activities placed on them will be well enjoyed from any window of the hotel building. However hills No. 2 and No. 1 are nearer to the main road and therefore require an easier and shorter access road, but this advantage is highly offset by the fact that they are not as opened in all directions as site No. 3 is. Site No. 3 enjoys the same north and east views that No. 1 and No. 2 do, and in addition, more south and west views than they do, the south west being a precipitous slope.

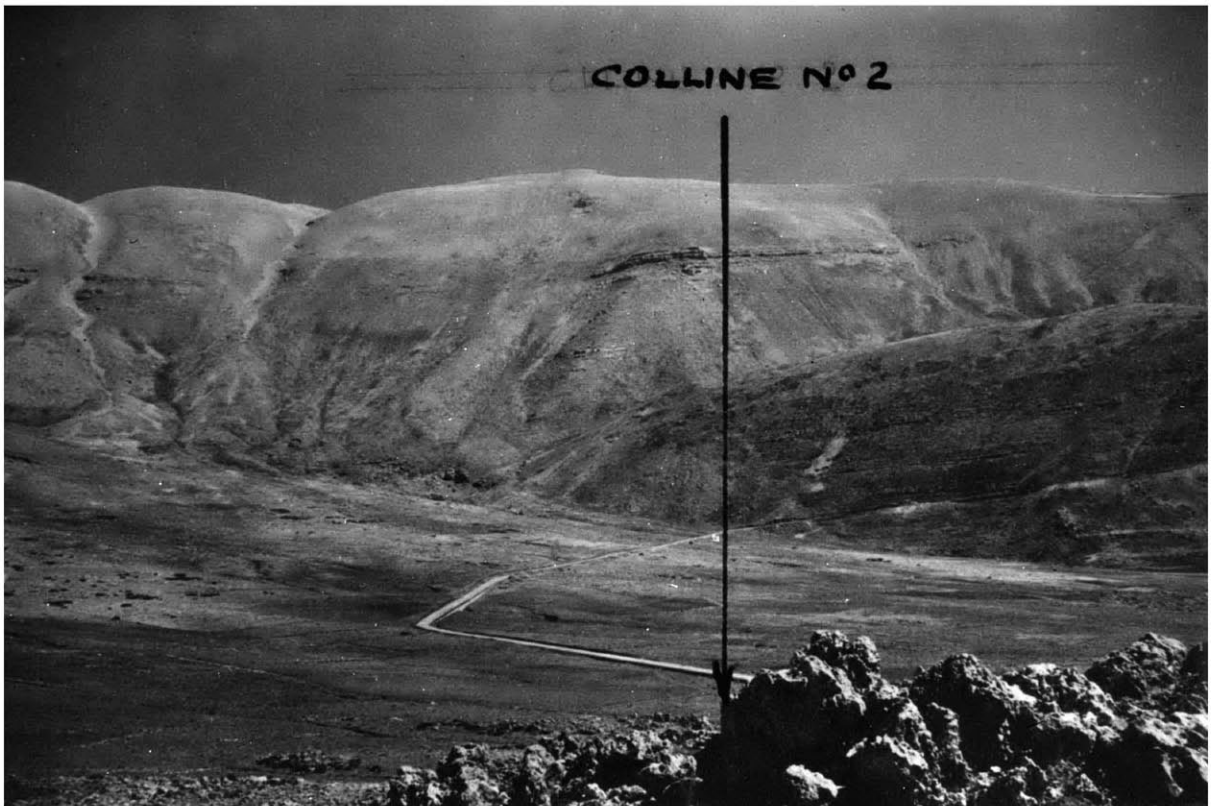
Between site No. 3 and site No. 4 the preference lies in the fact that No. 3 is a little further away from the present hotel building, and the military center which adjoin the area, and therefore/<sup>it</sup> does not have them as main objects right in its front view. Being at a level 90' above that of No. 4 and further up from it, the hotel will look toward the south and southwest quite above the roofs of the said buildings rather than into their backs and sides and barely above their roofs.

The building restrictions applying to this zone read as follows: In no case will the buildings in this zone go

COLLINE N°3

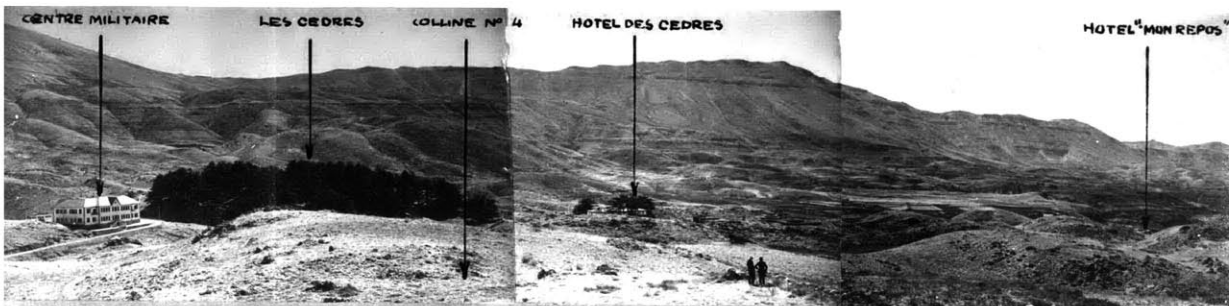


COLLINE N°2



beyond three floors above the ground floor, as seen from any point of the Circus, nor will they have a facade longer than 60 meters (198 feet).

The site chosen is therefore at an altitude of 1985 meters above sea level (or 6550 feet). It enjoys to the west, the southwest and the south the Kadisha valley and the grove of the Cedars; then to the southeast, east and northeast is the bottom of the Circus Bowl, and only to the northwest the adjoining land starts to elevate to a higher plateau.



VUE PANORAMIQUE PRISE DE LA COLLINE N°4 VERS LES CEDRES ET LA KADICHA.

## The Building

The building has been designed to take the biggest advantage of this opened all around view and its mass was always thought of as meant to take part in the natural formation of the circus bowl.

A certain number of schemes have been studied before adoption of the final solution. The first schemes were soon rejected because being narrow straight slabs with the bedroom corridor singly loaded or double loaded, they gave a mass not in harmony with the circus background, and the rooms did not take full advantage of the all around view. They also did not enjoy a variety of views.

The second group of schemes included narrow high towers, of bedrooms inspired by the Sestrieres towers in Europe but were soon rejected because they required tallness for their elegance and so conflicted with the cedar trees. They also did not conform to the restrictions.

The third group of schemes used the double loaded narrow slab principle but curved in an open "V" shape to follow the contour lines. To form a pleasant mass such a building had to have two long legs, and as a result the front facade exceeded by 50% and more the restricted length of 198 feet.

The fourth group of schemes was based on the Y construction of Scandinavian apartment buildings, with distances between two adjacent tips of the Y equal to 198 feet. While the bedrooms of such a building enjoyed a 120° variety of view the rooms on the reentrant angles were difficult to treat. Moreover like all the previous schemes the area on the ground floor did not offer the compact arrangement that the final solution gave and this is one of the reasons that favored the adoption of the final scheme which is the one shown in the developed drawings.

In this final scheme the entrance to the hotel is to the north, while the kitchen service and the service receiving platform are to the northwest thus leaving all the good view to be enjoyed by the rest of the public spaces on the ground floor, and also freeing all the grounds in front of these spaces from car traffic and road pavement. In the meantime, the bedrooms enjoy a full around the circle view of the circus of mountains.

The elevated plateau to the northwest presents a good site for the cottages especially that it overlooks a precipitous slope to the south of it. The plateau being to the northwest, the cottages can be serviced easily from the main building.

The structure of the building is based on the simplicity, regularity, and economy to be obtained from sticking to a

single basic room plan. The basic room plan is taken after the "convertible room" system of bedroom. The size of the bedroom including the buffer area is taken somewhere between the size of the urban Terrace Plaza's bedroom (14' x 21') and the size of the resort Caribe Hilton's bedroom (14' x 26'). On the first floor the bedrooms can be used either as single or as double bedrooms.

The general feeling of the bedroom is to be casual and to admit changes in furniture layout <sup>1./</sup>. From an L-shape arrangement of beds a double bed can be obtained by swinging one bed alongside the other one.

Each bedroom is provided with a private bathroom with shower facilities to avoid large water wastes. A special feature for a ski and summer resort hotel is the inclusion in the bathroom of a ventilated closet space where patrons can hang wet and damp clothes to dry (from women's stockings to ski shirts).

A certain number of bedrooms are of the duplex type with sleeping on the higher level. Because of the large diversity of family and friends groups that would come to the hotel, a flexibility of combination between the duplex rooms and their adjacent rooms can present pleasant home and family feeling within the walls of hotel bedrooms.

1./ See the latest design by Knoll Associates for a hotel convertible bedroom.

On one same floor, adjacent rooms communicate by sound proof doors.

The simple structural arrangement permits the division of the building into horizontal layers, with three floors of bedrooms (sometimes two and a half) on the top, one ground floor of public area, a basement (partly raised above ground) for services and staff quarters, and if the soil permits easy excavation, a garage sub-basement.

The planning of the public area attempts to turn the stiff and cold appearance of a large hotel into the cosy atmosphere of a lodge. Great splashes of flower and foliage plants are to be used indoors, especially in the central lounge. The formal dining room is envisioned in its design as a dining porch in the summer. The bar low screen enclosure can be removed so that dining room space and lounge can be integrated for ball activities with a barstand enjoyed by both.

For fixing the level of the ground floor, a five foot snow line is taken into account, and kept to clear the windows of the staff quarters below.



## Other Engineering Problems

### Materials of construction:

In Lebanon steel and wood are imported items, hence the widespread use of stone masonry and reinforced concrete structures. On the site of the Cedars limestone is available and a quarry can be opened for the need of the construction either for faced ashlar masonry or for concrete broken stone aggregates, or for cyclopean retaining wall masonry. A cement plant is located at Chikka, on the coast at 40 miles from the Cedars.

For the construction, the structure will be of reinforced concrete framing. Upper floor slabs will be of a special ribbed hollow tile concrete system, (hollow tile, fabricated locally for the purpose). The garage ceiling will be of flat roof construction. The partition walls will be of hollow cement blocks (fabricated on the site) with plaster on both sides, in bedrooms and public areas. The outside walls will include metal sash openings and for the higher floors stone veneer backed with hollow blocks, while on the lower basement floor they will be of heavy stone retaining wall type.

The heavy tar roofing material "Tcopal" with fine colored gravel will present a pleasant and suitably applied material. It must be laid on cork or on a grooved flat surface.

Native clay or terrazzo tile will make a colorful floor finish especially if used with rough woven rugs.

#### Water:

The supply of water is assured from water springs at higher altitudes than the hotel.

#### Plumbing:

The plumbing of the bathrooms is contained in large shafts 1'-6" wide (large enough to be entered in) connected with the central plumbing and drainage system. These shafts contain water and drainage pipes and carry a ventilating duct for the bathroom they serve.

To facilitate plumbing repair pipe lines and conduits should be readily accessible by the maintenance man.

#### Heating and ventilating:

Because of erratic occupation of bedrooms a "forced hot water system" is to be used, which allows a shut off of unused rooms. Such advantage cannot be obtained from a radiant heating system. The uncomfortable radiator presence will

be replaced by a "Webster" baseboard heating in guest rooms, and a "Webster" High Capacity baseboard heating in the public areas. The service areas will be heated by the Walvector units and when possible with WI radiation fins with standard covers. Webster baseboard heating gives even mild temperatures from floor to ceiling and from wall to wall with low fuel and maintenance costs.

For removal of snow from above the ring area around the central skating rink, hot water pipes embedded in the concrete will be used.

Ventilation of the bathrooms is obtained by means of an exhaust grill located on or near the ceiling and connecting with a galvanized iron elbow having a friction damper and leading into an exhaust duct in the pipe shaft. The register will have fixed louvers and the bathroom door will be provided with slots or grills to permit through ventilation.

The inside bathroom is more easily ventilated than the outside bathroom. Backdrafts through a bathroom window may cause a discharge of bathroom air into the room.

An artificially controlled exhaust ventilation assures an even complete change of air every two to five minutes.

In the kitchen the ducts from hoods over ranges, broilers, steamers, must be independent of other exhaust systems.

### Acoustics:

To prevent travelling noise around smooth circular walls, and to prevent the formation of a reflecting focus at the center of a circular wall area, the wall must be splayed and its parts deviated slightly from the tangential position to the the circle. Otherwise absorptive material or rough bubbling material is necessary to diffuse the sound. This is the precaution to take with the walls in the main lobby since music will be used in this area for dancing and other purposes.

The music room should be acoustically treated with absorptive material and broken surfaces. Its walls are already splayed and this prevents flutter.

During the winter, all windows will be closed and there will be no noise problem from the music in the central lounge to the guest rooms. During the summer it might go up through the open skylights, but then the bathroom and closet buffers will increase the transmission.loss. Since all guest rooms are placed above the public area, and no guest room faces the public area, transmission of music noise during the summer, through opened outside windows and doors will not be a problem especially that the balcony in front of the guest room overhangs over the ceiling of the public area.

The hung ceiling in the public areas will reduce noise transmission to guest room through ceiling.

The wall separating the kitchen and the dining room should be of a high transmission loss.

Between the guest rooms, partitions of 4" hollow blocks with plaster on both sides provide a high enough transmission loss.

#### Electric power:

The hydro-electric plant of the Kadisha valley, located at 2 miles from the Cedars can supply electric power to the hotel. However for emergency purposes, the hotel will generate part of its power.

#### Lighting:

For public areas the lighting will be of the recessed type with diffused plastic panels. Spotlights will add drama where necessary. In the guest room wall hung lighting will direct light to places where it is needed, and when directed to the ceiling it will reflect a cool light, without glare.

#### Preliminary costs:

Any attempt to figure a preliminary cost of the building would be almost impossible as there are no contractors figures for jobs carried out in the area.

**D. Appendices**

## Appendix I

History of the Cedars (from Dodge, Bayard, "The Cedars",  
the Bulletin of the Near East  
Association, Jan. 1950)

"The 80th Psalm in the Scripture speaks of the Cedars of God. A shrine still stands in the Bishareh Cedars, where once Venus and Adonis were worshipped. Before the time of the pyramids, the Egyptian Pharaohs established a trading station at Jibail, to obtain cedarwood for their ships and palaces. Writings tell how King Solomon joined with Hiram, King of Tyre, to fell trees in the mountains of Lebanon and transport them by sea and land to Jerusalem. Phoenician craftsmen fashioned cedar logs into rafters and paneling for the temple and palaces. They also used the trees to make columns for the "House of the Forest of Lebanon" which was Solomon's great throne room and judgment hall. Masonic orders trace their origins to Solomon's time and still have a sentimental attachment for the Cedar.

The Roman emperor, Hadrian, established an imperial forest in Lebanon with a monopoly to use the cedars and three other types of trees for the oars and masts of his triremes.

As the Crusaders taught their friends at home to love the cedar tree, there are still beautiful cedars in most of the public and private parks of England and France.

Appendix I (cont'd)

The most famous forest of cedars is a small grove of very ancient trees above Bishareh, protected by a wall which was paid for by Queen Victoria. One of Lamartine's most beautiful poems was inspired by these cedars."



## Appendix II

### Staff Requirements

Administration:	Manager	
	Social host or hostess	
	Clerk (desk)	1
	Secretary-bookkeeper	1
	Doorman	1
	Bell boy	1
		<u>4</u>
Residences:	Housekeeper	1
	Maid per 10 rooms	6
	Bell boy per 10 rooms	6
	Waiter per floor	2
		<u>15</u>
Dining (Serving)	Restaurant manager	1
	1 headwaiter per 10 tables	3
	1 waiter or waiters per 6 tables	8
		<u>12</u>
Dining (Preparing)-Chef		1
	Assistant chef	1
	Kitchen helpers	2
	Dishwasher	2
	Bus boys	2
		<u>8</u>
Bar and soft drinks-	Bartender	1
	Helper	1
	Waiters	4
		<u>6</u>
Recreation	Supervisor	1
	Children's play director	1
	Ski or golf professional	1
		<u>3</u>
Shops and	Hairdressers	1
		2
		<u>3</u>
Maintenance	Repairman	1
	Heating and equipment	1
	Pool and ground keepers	5
		<u>7</u>
Garage attendants		2
		<u>2</u>
	Total	<u>60</u>

### Appendix III

Installation d'un hotel pour les sports d'hiver et l'estivage  
au plateau des cedres du liban

Sous sol: Cuisines  
Offices  
Buanderies  
Lingerie  
Sechoir chauffe  
Chaufferie chauffage central  
Chaufferie eau courante  
Salle frigorifique  
Moteur ascenseur et monte-charge  
Cave a vin  
Cave a provisions  
Cave a charbon  
W.C. du personnel  
Lavabos du personnel  
Fosses septiques  
Incineration d'ordure  
  
Depot de ski  
Salle de fartage des skis  
Atelier de reparation des skis

Au niveau  
du sol: Garage chauffe pour 40 a 50 voitures  
Ecuries  
Poulailler

Res-de-  
chaussee  
sureleve: Reception  
Bureau direction  
Concierge  
Vestiaire  
Salon ) Transformables en  
Dancing ) salle de fete ou  
2 salles a manger ) cinema  
  
Bar  
Salle de bridge  
Salle de ping-pong  
Salon de lecture  
Office (avec monte plats)  
W.C. lavabos (messieurs)  
W.C. lavabos (Dames)  
Ascenseur et monte-charge  
Salon de coiffure  
Salle de jeu pour enfants



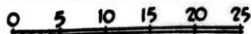
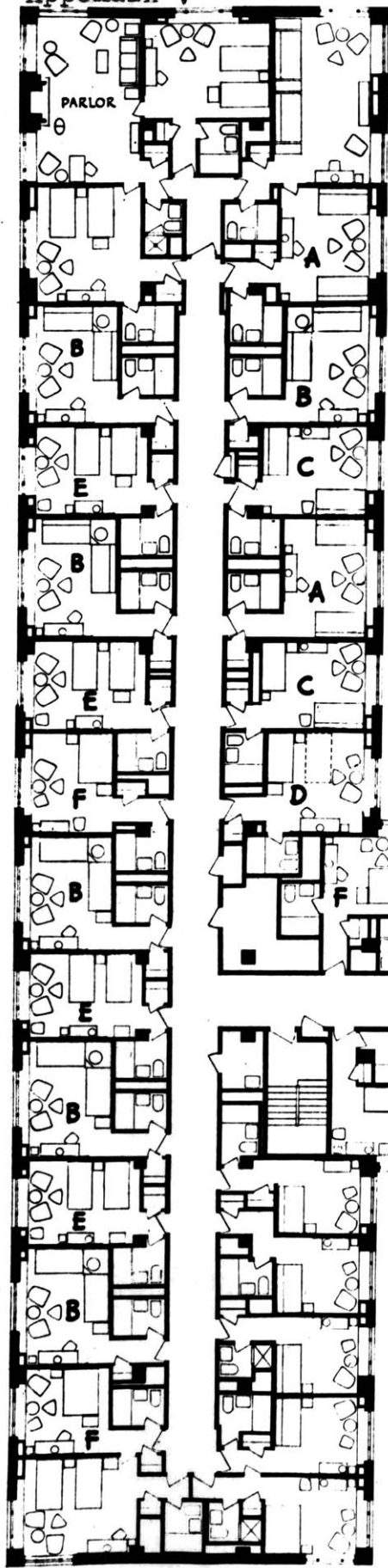
Appendix IV

Azimuth and Vertical Angles of the Sun at the Cedars

	Sunrise		9 A.M.		12 A.M.		3 P.M.		Sunset	
	Az.	V.A.	Az.	V.A.	Az.	V.A.	Az.	V.A.	Az.	V.A.
Dec. 22	S62E	0	S43E 16	*	29		S43W 16		S61W 0	
Feb.	S77E	0	S51E 26	*	42		S51W 26		S77W 0	
Mar.	S82 <sup>5</sup> E	0	S61E 34	*	53		S61W 26		S90W 0	
May	N65 <sup>5</sup> E	0		*	73				N65 <sup>5</sup> W 0	
June	N61E	0	N82E 49	*	77		N82W 49		N62W 0	
July	N65 <sup>5</sup> E	0		*	73				N65W 0	
Aug.	N75 <sup>5</sup> E	0	N70E 42	*	64		N70W 42		N76W 0	
Sept.	S90E	0		*	53				N90W 0	
Oct.	S77E	0	N70E 42	*	42		N70W 42		N77W 0	

\* True North

Appendix V

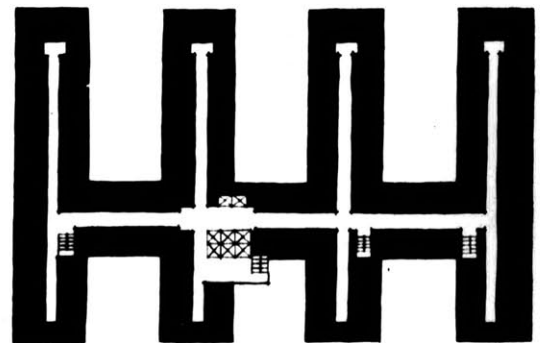
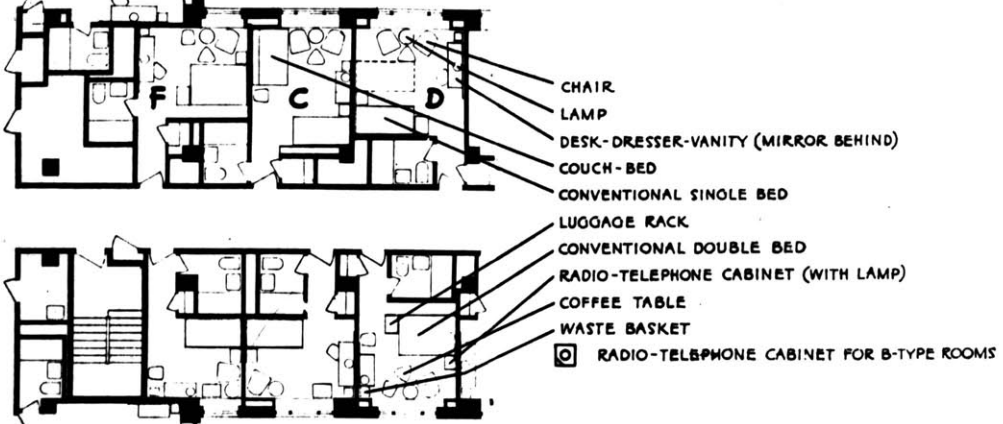


A-type room arrangement, an idea brought back from Italy and England by Architect John Root, was the starting point in the Statler's studies of bedrooms that could double as living rooms. Beds are a Statler special, which make up as daybeds for day use. Room is wider and shallower than the conventional proportions, and was first considered rather radical

Other furnishing schemes developed as studies progressed. B- and F-types are wider than they are deep. The B-type, with its L scheme of bed placement and its corner radio-telephone-lamp combination, is the one most frequently used. C, D and E have more the proportions of the usual hotel bedroom, but are planned and furnished for increased daytime utility

Uncertain about public acceptance of the living-bedroom idea, the Statler wanted some of the new style, some of the more conventional. The proportion worked out to about half and half, largely through the alternating of wide and narrow rooms. This arrangement brought bathrooms back to back, for good economy both in space development and in plumbing installation. In general, rooms are smaller than normal, but distinctly more useful

Furniture design contributed much to the new livability of rooms. Basic in all room layouts are two elements: 1. the grouping of two stuffed chairs, floor lamp and double-decked triangular coffee table; 2. combination desk-dresser-vanity, with large wall mirror behind and full-length mirror beside it. Careful surveys showed the drawer space of this combination adequate for the typical hotel room, though it is considerably below old standards. Furniture, scaled down for these room sizes, was designed by Statler's Trylon Studios



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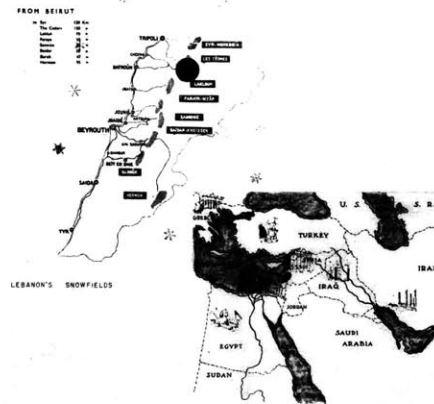
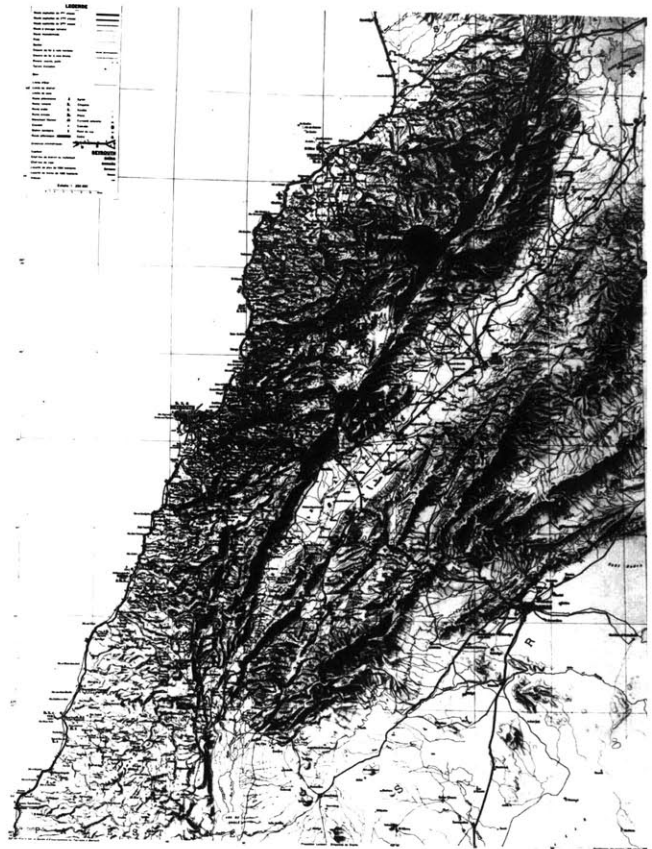
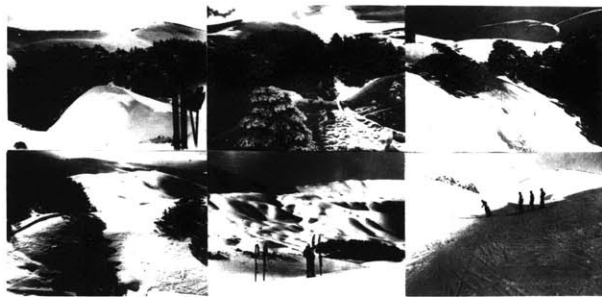
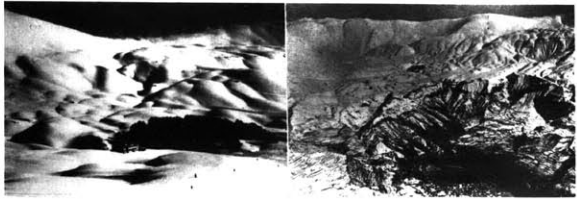
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F. DRAWINGS AND MODELS

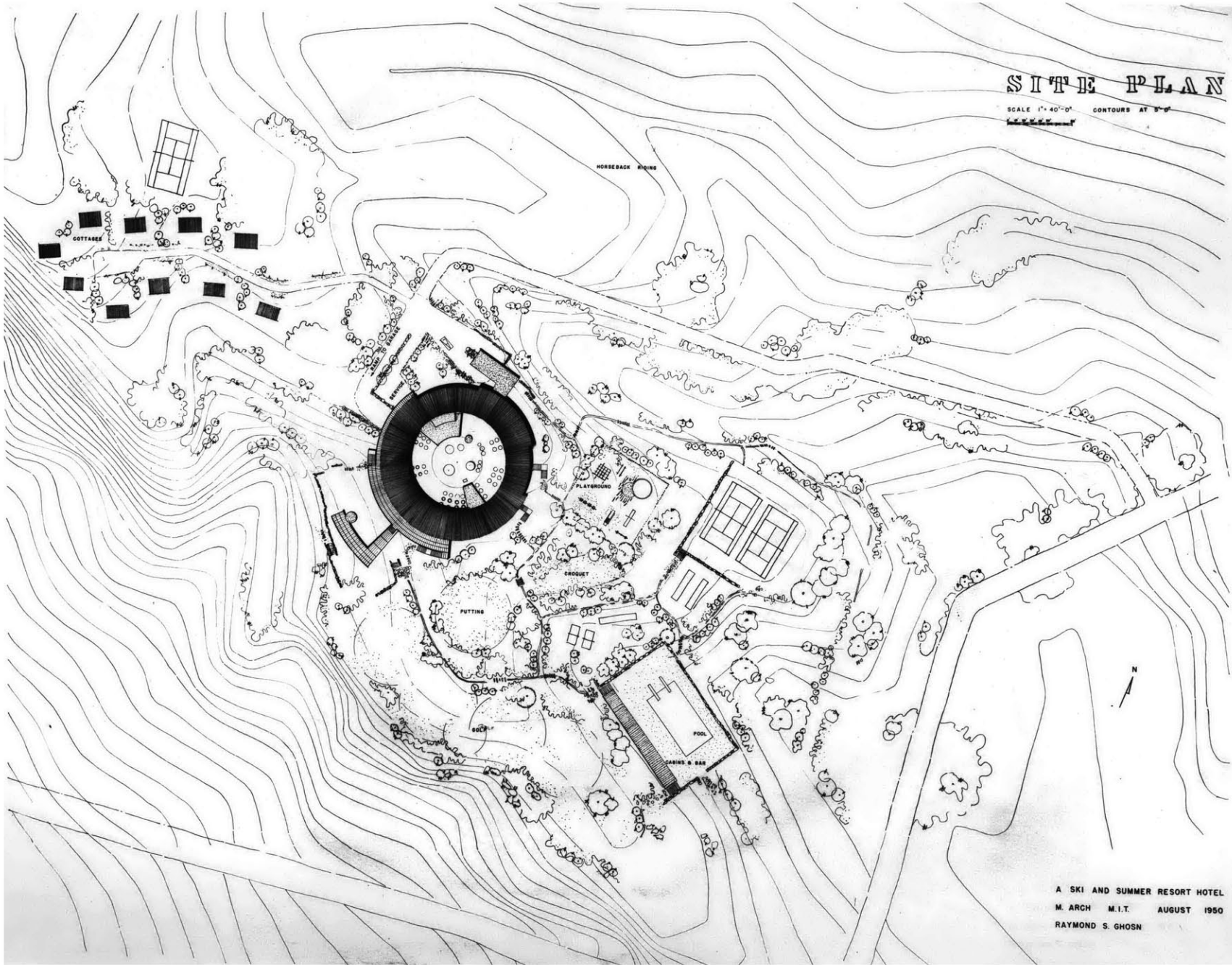


A SKI AND SUMMER RESORT HOTEL  
 FOR THE CEDARS IN LEBANON'S MT'S.  
 M. ARCH M.I.T. AUGUST 1950  
 RAYMOND S. GHOSN



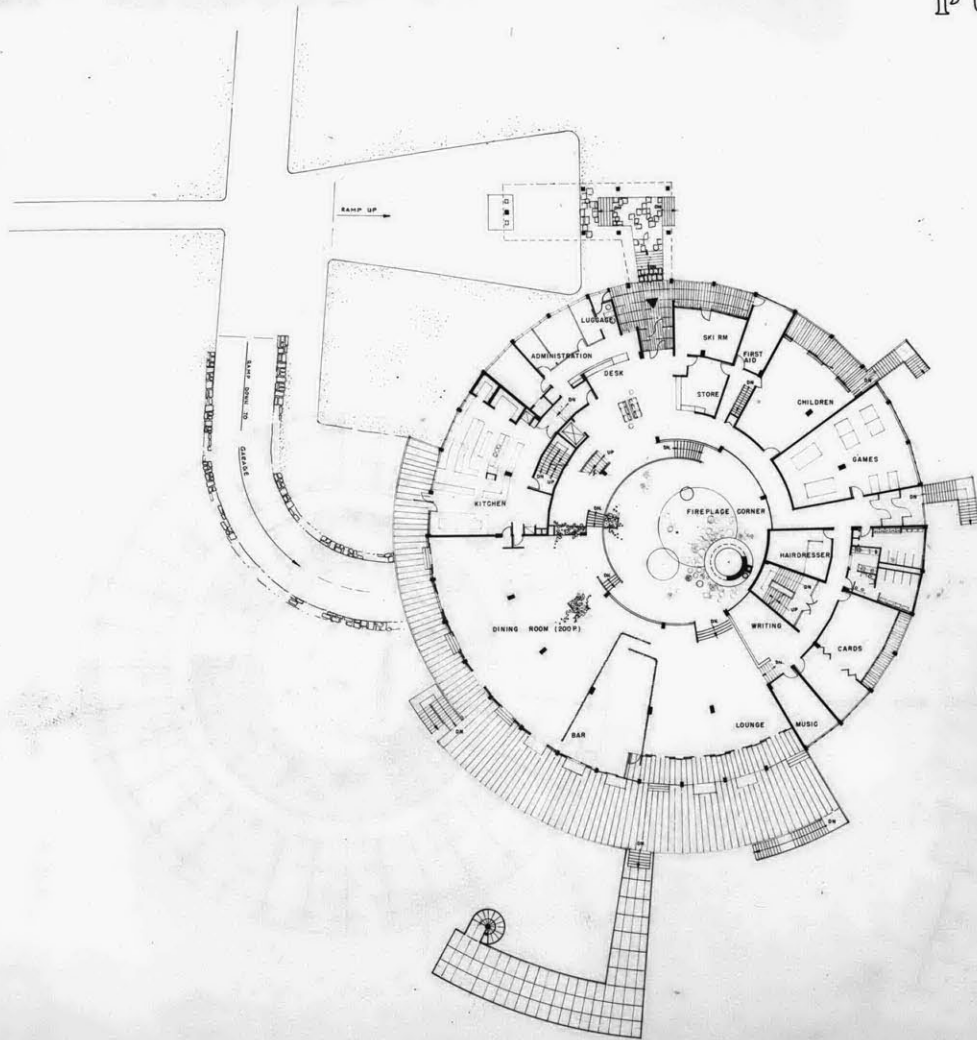
# SITE PLAN

SCALE 1" = 40'-0"    CONTOURS AT 5'-0"  
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A SKI AND SUMMER RESORT HOTEL  
 M. ARCH    M.I.T.    AUGUST 1950  
 RAYMOND S. GHOSH

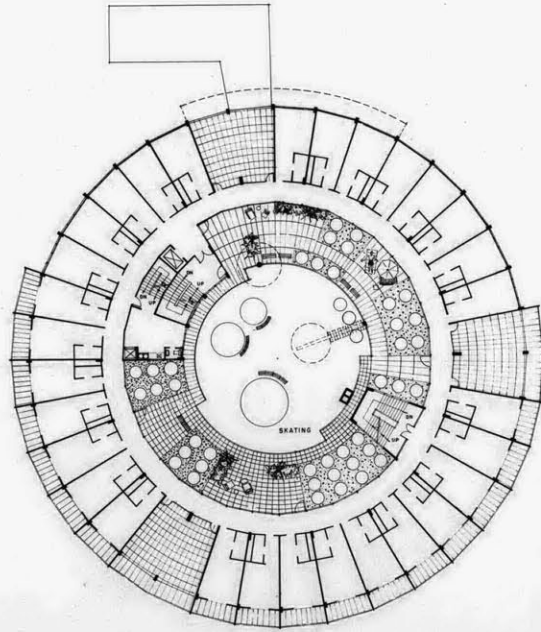
PUBLIC FLOOR



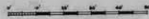
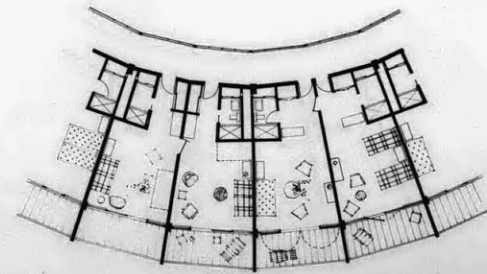
A SKI AND SUMMER RESORT HOTEL  
M. ARCH. M.I.T. AUGUST 1950  
RAYMOND S. GHOSH

F I R S T B E D R O O M L E V E L

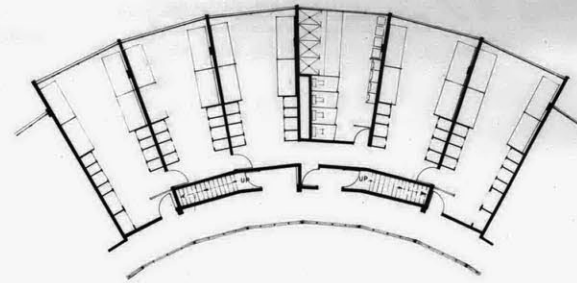
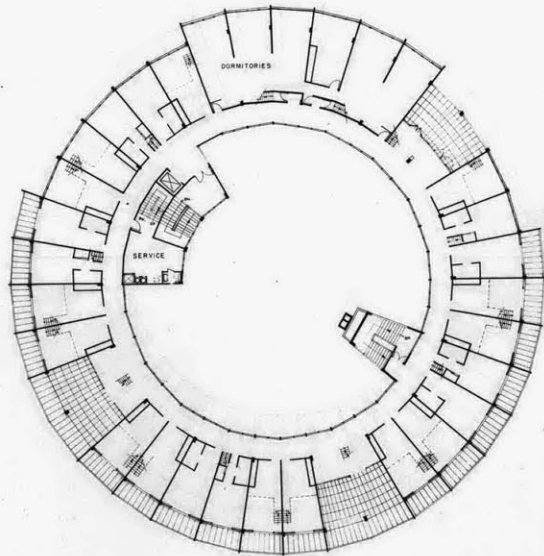
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M. ARCH M.L.T. AUGUST 1950  
RAYMOND S. GHOSH



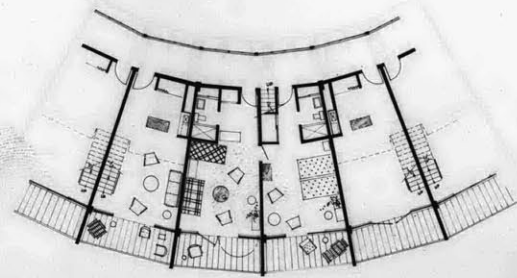
TYPICAL ROOM LAYOUT



SECOND BEDROOM LEVEL



DORMITORY LAYOUT

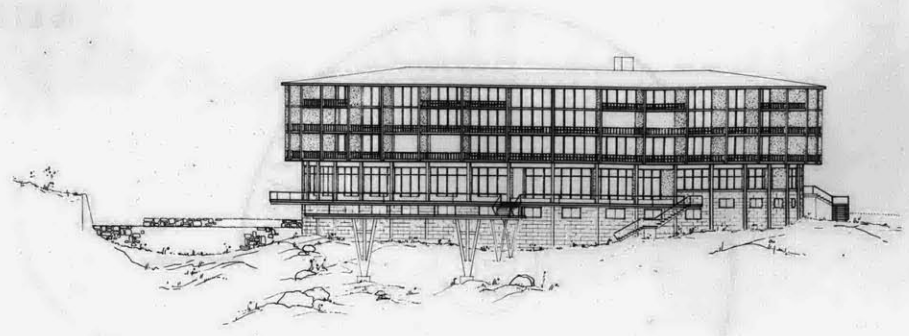


TYPICAL ROOM LAYOUT

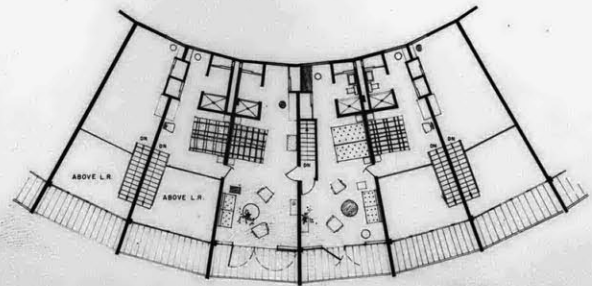
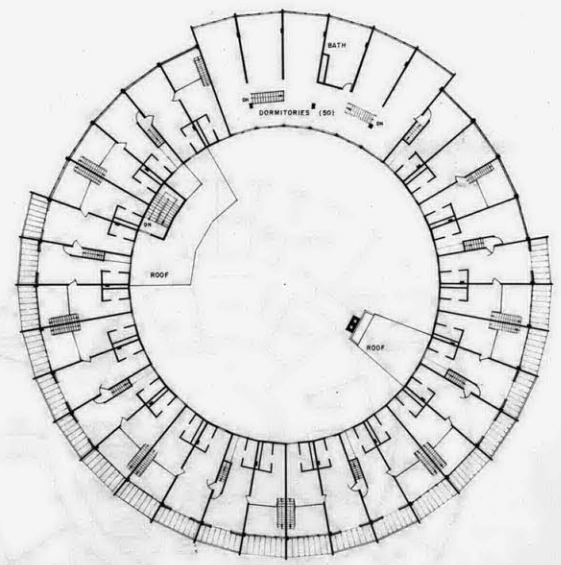


A SKI AND SUMMER RESORT HOTEL  
 M. ARCH MIT AUGUST 1950  
 RAYMOND S. GHOSH

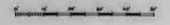
THIRD BEDROOM LEVEL



SOUTH ELEVATION



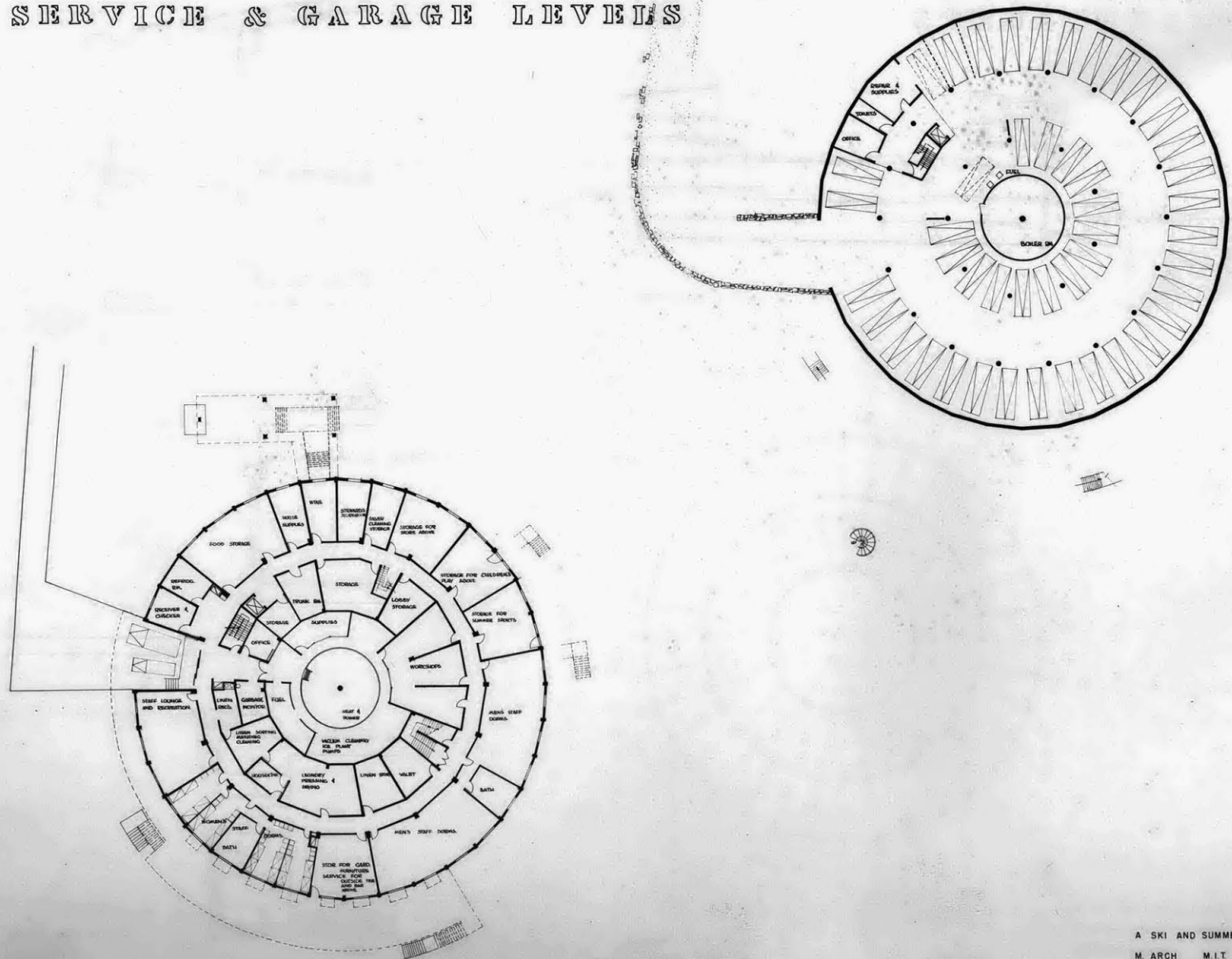
TYPICAL ROOM LAYOUT



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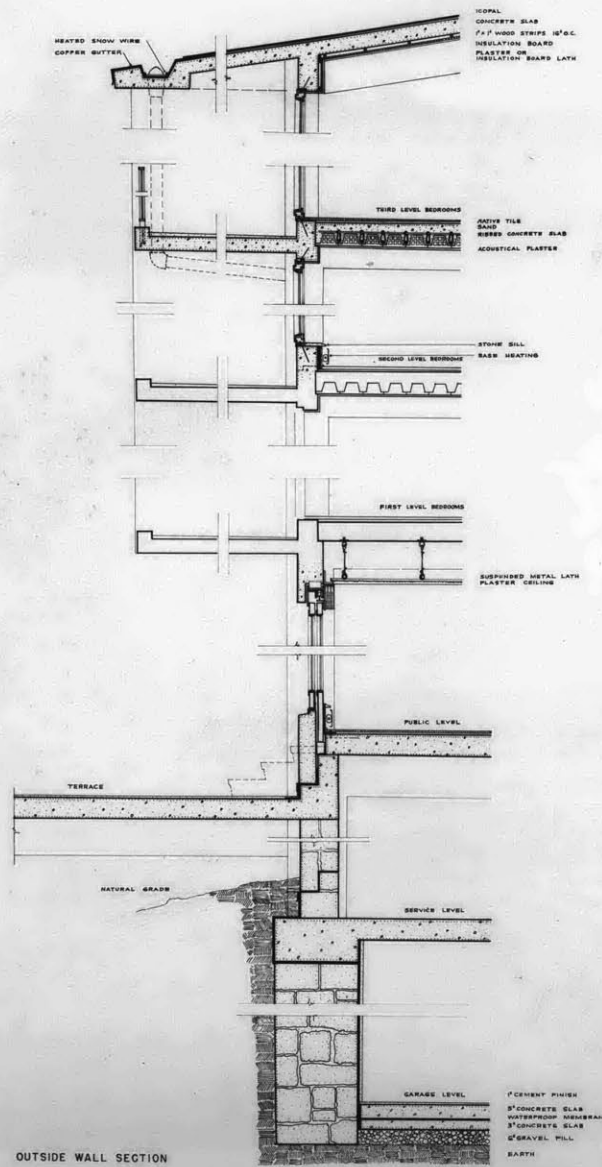


# SERVICE & GARAGE LEVELS

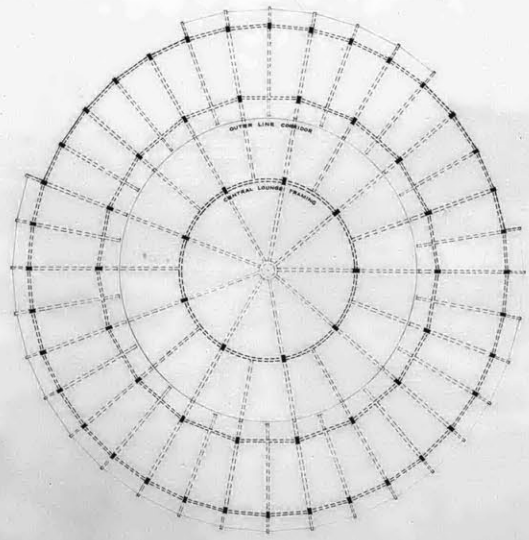
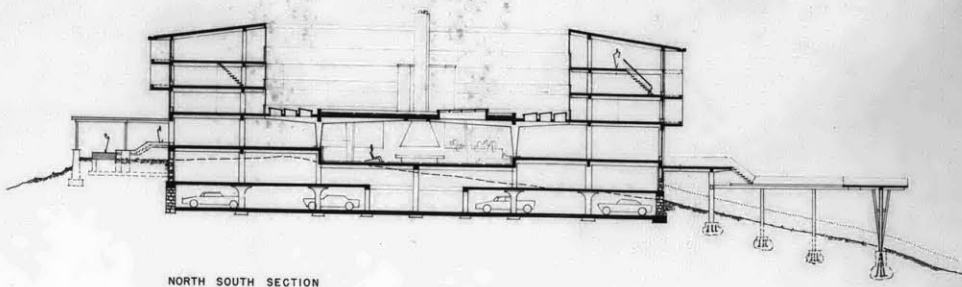


A SKI AND SUMMER RESORT HOTEL  
 M. ARCH M.I.T. AUGUST 1950  
 RAYMOND S. GHOSH

# STRUCTURAL



OUTSIDE WALL SECTION  
SCALE 1/2" = 1'-0"



FRAMING PLAN  
SCALE 1/4" = 1'-0"

A SKI AND SUMMER RESORT HOTEL  
M. ARCH. M.I.T. AUGUST 1950  
RAYMOND S. GHOSH



