THESIS IN ARCHITECTURE

(for the B.S. in C.E. degree)

Project for a :

" SUMMER

COLONY

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Adviser-Professor : Yeramian.

Started on : Oct. 28th/1944.

Completed on : May 20th/1945.

To that very person:

Shortly I have known, but for ever.....

inspired me, though unaware of the fact.....

and who will guide me in all of my present and
future research work......

To :

From :

SUMMARY :

Introduction : Choice, Presentation, and Justification of the Project.

Chapter I. : Site : Situation & Advantages.

Chapter II. : Planning & General Details.

Chapter III. :
Building (Type A.)

Chapter IV. :
Building (Type B.)

Chapter V. : General Administration Building.

Chapter VI. : Main Service Building.

Chapter VII. :
Roads-Water Supply-Electricity & Sewer-system.

Chapter VIII.:

Details: Housing & Open spaces.

Conclusion : Expected Efficiency & Future Expansion of the Project.

Proposed by :

Approved by :

N.B. (For all directions, please refer to separate sheet as established by the Engineering Department - American University of Beirut).

INTRODUCTION

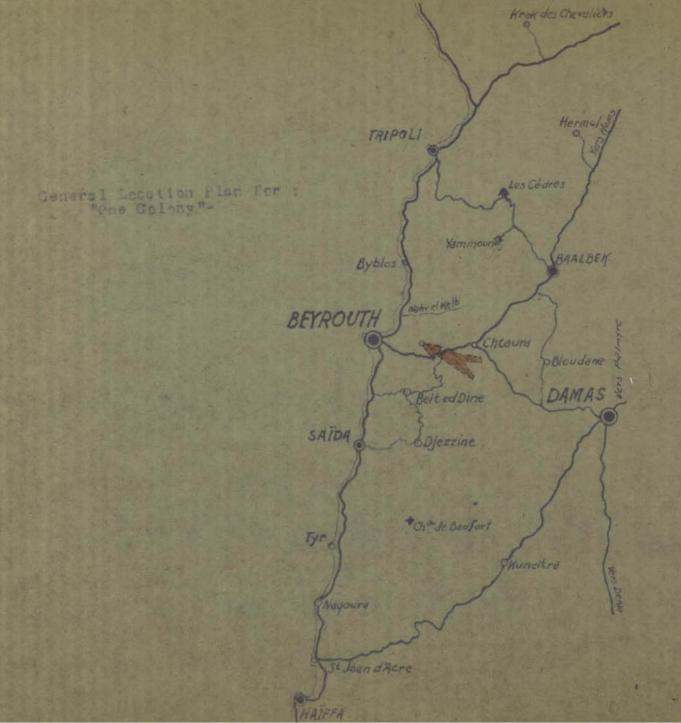
--- "CHOICE OF THE PROJECT" ---

Lebanon, due to its natural & geographical conditions, was called to be, is now, and shall be relied upon to secure the conveyed "SUMMER SEASON" requirements for the majority of the neighbouring Middle-East States.

Historically speaking, before and during the last war, with the exception of the Sofar Grand Hotel, and that of Zahlé, we could rarely find any others satisfying-up to a limited extend- the exigencies brought by the technical meaning of the word. But during the period (1920-1940), some other Hotels were built up in most of the big summer centers in Lebanon: & as a whole, these were far from satisfying the ordinary requirements relating to such projects, if we take those found in Switzerland, for instance, as a criterion. Thus the plan of a Lodge erected somewhere in France, was mechanically copied & stuck to one of our charming corners, without any restraints whatsoever: moreover, in the majority of the cases, the supervision & execution of such plans, was simply secured by an ignorant meson, often coming from the same village, or if not, from the next one to it.

Our understanding of such projects, and the technical ways to carry them out was uncomplete to such an extent, that a great number of our summer clients did not always find the ease & comfort they were supposed to get.

Nowadays, we come to a period, when Lodges & Hotels are no more holding fame or reputation for the bare reason of good cooking or "liberalism of the owner" : such an old -



Drawing Ne : 525

---- ""THE SITE""----

As it was already mentioned, we lack in comprehension, the way we ought to choose the Site for a Hotel or Lodge: and had we been, in the past, more careful about such a detail, the conveyed results would have been much superior, & all of our institution would have been more attractive to Customers.

During my boyhood, I had the chance to hike over most of summer areas in Lebanon:

I used to observe carefully the most picturesque corners of my country: dreaming that one up day, I might be able to put/one or more Villas in few of these places. But I always misestimated my home village.....

DHOUR - ABADYEH : at some I5 - I8 Kms. from Beirut, & on the road to Damascus - Going from Aley to Bhamdoun-Station, it will be to your left hand side.

Just opposite to the road leading to the Djebeily Hotel, at one Km. from Aley if you go towards Bhamdoun-Station, exists a second road, leading down to the Abadyeh Village, and will lead to the very site of the Project.

I thought of that site, as being best, for its neighbouring to Important Summer Centers, such as Aley, Souk-El-Gharb, Bhamdoun-Station and Sofar.

Not very far from it also, lie some orchards & fruit gardens, to supply the colony with page (3)

the necessary delicious fruit & vegetables.

I wanted also, that my colony be as well far enough & more or less separate from the above mentioned centers, so as to obtain the highest profit from a natural & quiet environment. (Experiments recently performed in Europe & America prove this statement to be true).

We were also restrained to choose the site, at an average altitude (around 750 m.), where humidity never becomes annoyous, & fog or mist rarely appear.....

Moreover, the landscape is of such natural configuration, with a certain inclination, so that rarely one of the buildings could obstruct the line of sight of any other one.....

The extent of the land is big enough, so as to hold in the future, different fields for the most important types of games or sports, such as tennis-courts, basket & volly-ball fields, cricket & base-ball grounds, etc...etc.....

The area itself dominates the Hammana Green valley as being situated over a semi-circular high cliff, a little convex towards the North....

Panoramas covering downwards from Beskinta - Sannine - to Beirut & its harbour, then upwards again from Choueifat & Khaldeh to Souk-El-Gharb, & Aley.....

The main disadvantage to the land itself, I could detect,, was the lack of vegetation and trees; being for so many years, previously, abundoned. But this failure could be remedied for, by establishing flower gardens to surround the buildings. However all of the adjoining or further backgrounds, are covred with wine trees or fruit trees, or else with the handsome pinetree, sometimes artistically called:

--- " THE QUEEN OF THE MOUNTAIN" ---

-- "PLANNING AND GENERAL DETAILS" --

The land assumes a roughly tracezoidal shape, as shown on the general Lay-out plan. It is limited to the North and West by a cliff already mentioned above. To the South is a small valey, always dry except during the Rainy periods; and to the East is a public read.

The colony is to be made out of:

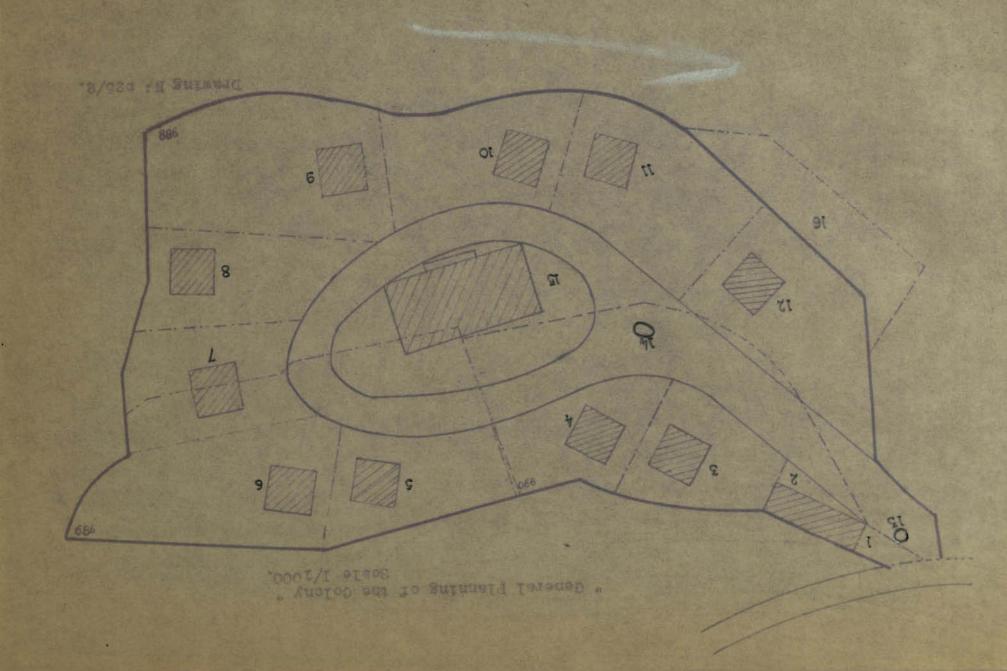
- s) Four. out of ten, type A Lodges.
- b) The remaining six being of the type B Lodges.
- c) One main central building, with an administration center.
- d) All of then being surrounded with gardens, play-grounds, and access roads.
- N.B. (All of this shall be particularily developped in the following chapters).

Access to the Colony is secured by a single wide road, which ends in the form of a loop. This road must touck any separate parcel-into which the whole is supposed to be previously divided-at a minimum width of ten meters.

This main road, as well as the loop, shall be provided on both sides with sidewalks for pedestrians. And a monument or some natural growth, at the main entrance, and at the beguinning of the loop shall out-off the line of sight to any outside passer-by....

Entering thru the main gate, you may find progressively and to year left hand side, the following sectors. well defined by wooden fences or other means:

(I) Is the gateman's room, and the administration center; a staircase leading to a second floor, which extends as well over the built area containing garages: there would be the waiting room for guests and



new commers, with all of the administration general offices and centers.

- (2) Garages are to be found in the first floor, on top of which extend the administration centers.

 (3-8) Are lots varying between 1500 to 2500 square meters in area, out of which only I/IO to I/20 is to be biult: the remaining vacant space being left for gardens and corners or places for rest. In
- these areas are found the type B houses-having only two sleeping rooms where the possibility of ha-
- ving young and minerons children, is much less if compared to class A houses : so that they are kept
- away from the noisy playing sector for the lads'
- (9-I2) While here, comes the type A of Lodges containing three sleeping rooms adjoining the children's play-ground in lot No I6: so that parents lucky in children, are to bear their agitation- I am afraid during the after-noon rest period.
- (13 and 14) Are planted areas, so as to abstruct the line of sight, to the outsides
- (15) Whereas this lot, being central with respect to all the others, is to be occupied by the main service building at a maximum distance of 51 meters from any separate Lodge.
- (16) This parcel is only, for the time being, to be adjusted so as to form a playing ground for children; it will serve as well to locate the sceptic tank.

To the East and South, it is advisable to have, besides the artificial stone fence, an inner but natural one, with nice looking and harmless bushes, so as to abstruct the outside views.

While to the West and the North, there will he a general passage-similar to the sidewalks-bounded with a certain parabet, and which dominates:

" THE CLIFF"

--- "LODGE : TYPE A" ---

The house by itself occupies an area of I50 square meters-including the free space occupied by the U-shaped verandah. It contains the following units-all shown by the general drawing for a type A Lodge.

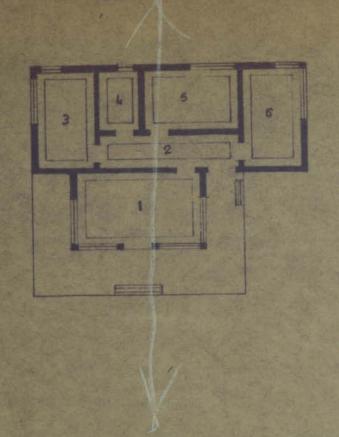
(I) A Salon: 7x3.75 square meters in area, and 4 meters in height. Its furniture shall be: two sofas, two fauteuils, four arm-chairs, and a table. Its decoration shall be of a richer type than in the sleeping quarters: picture and xhair rails are to be introduced here. It will be very carefully lighted and aerated; and openings are available on three sides, so as to get the maximum profit out of the natural nice looking panoramas and natural wiews.

, It shall be provided with two doors: one for the main entrance for guestés, and giving on to the verandah; while the second, leads to the corridor and consequently to the sleeping quarters.

All around the salon extends a U. shaped verandah, 2 mters inwidth, and bounded with stone piers supporting 2 inch water pipes. It will be, as well as the whole house, raised around 50 cms. above the natural ground level; and three sets of steps are allowed for, to such a purpose.

(2) A simple and contral corridor: 7.5xI.75 square meters in area, joining the different units of the building to each other pits decoration is of the simplest and most ordinary style. A portable ladder may be introduced to it so as to store up the empty luggage in the vacant space on top of the bath room.

(3,5and6) Three sleeping Rooms: 5x2 meters in area and 4 meters in height-large enough so as to fit in each one; two beds with two adjoining tables and a closet. Free inlets, at least 80 cms. in width are left between any two parts of the furniture. The wall decoration shall be of the simplest type and



Plan of " Lodge A "- 'Scale : 1/200

Perspective of " Lodge A "-Scale : 1/200



looking. Aeration and light are secured by one or two windows covering an area which varies between 2 and 3 square meters for windows, and 2 square meters for the door. The electrical lighting shall have a pair of switches: one of then being fixed, and the other portable, so that if a client wishes reading in his bed, he may put off the light without any disturbance. At last, as will be discussed later on under "Details" the colours for wall painting or distempering and that of the tiles are to be adequate with the function of the room.

(4) A western bath-room: 3x2 square meters in area, and only 2.20 meters high, complying with the usual satisfactory planning. Ithe decoration being simply made out of ceramide tiles up to 1.50 meter level from the floor, and the remaining part of the walls, both with the ceiling being oil painted.

The piping to supply to and take the water away from the tub, wash-basin, bidet or toilet seat are fixed to the due dimensions, and hidden in the walls into special rooms or closet-conduits, to facilitate any kind of repairs, without disturbing the outer looking of the plaster. Taps are to be of a good made and nice looking: and the heater shall be fixed in such a way so as to be efficient as well as smoke-proof, and safe enough in asfar as fire is concerned.

Now if the putside Architecture of the Bungalow be considered, we tried to make it mostly adequate with the environment. With a green background, how beautiful would appear a one story building; built up of yellowish rock-faced stones, with certain ablong apenings, painted brown, so as to change the monotony of the yellowish limestone....

The orientation of the building is to be taken great care of: salons, for instance are to be mostly to the North and North-ewest, so as to get the least amount of sun in the after-noon. One of the sleeping rooms, or two if possible, should be away from the sun in the after-noon, so that elder

persons could have a rest....

No house should be more than 30 to 35 meters away from the main road. Some of then may be at only IC meters from it: but all such considerations are liable to be changed, so as to conform with the requirements imposed by the diverging cones of sight, as may be required by each Lodge:

"SEPARATELY"

--- "LODGE: TYPE B" --- .

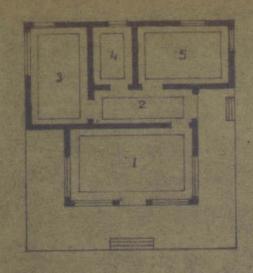
This type of house covers an area of 130 square meters only. And as we have already mentioned it is to be occupied by a smaller family- (speaking about number of its members) than that diwelling in a type A Lodge.

So, the only material difference between both types, is that in this second type, called "B" (a) The third sleeping room (No 6) as shown by the general drawing for a type: B house-is eliminated.

- (b) Thus the area of the central corridor becomes 5.25x1.75 square meters.
- (c) And the U shaped verandah is increased in length with 2 extra meters.

But all of the other considerations, comparatively to type: A shall remain:

"SIMILAR"



Plan of " Longe B "-Boole : 1/200

Perspective of " Lodge R "-Scale : 1/200



--- "GENERAL ADMINISTRATION BUILDING"---

This is a two story unit: the first floor is only 2.50 meters high, while the second story is 4.20 meters. It extends over an area of I60 square meters, all as shown per drawing for the General Administration Building. It contains the following component units:

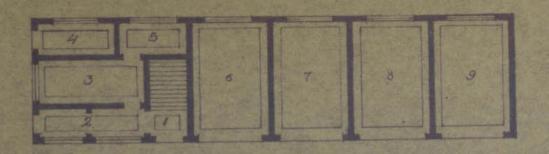
In the first floor:

- (I) Is a staircase room 2x6 meters in area and 6.50 meters, as maximum height. This leats up to the second floor. Aeration and light are secured by a pair of vertical modinitors 0.50x3.75 and imension as shown in perspectives of drawing mentioned above.
- (2) Is a I.50x6 meters, slip into two compartements: the left hand sided is the telephone center, and the other is the gateman's. A table, a chair, and the switch boards are all as furniture.
- (3) Is a simple sleeping room for the gateman and telephone operator. Two beds a cup-board and a table with two chairs constitute the furniture.
- (4) Is the electrical storage room: accumulators, and a special motor, will be readily prepared to enter into action. in case the electrical company starts its manual tricks, as it satisfy happens.
- (5) 1s a simple bath room, with a toilet seat, a wash basin and a shower, connected to the heater.

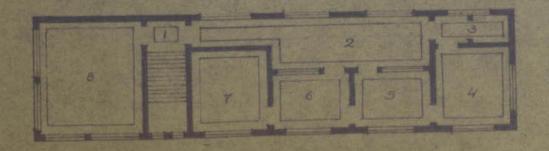
 (6,7,8and9) Are 4X6 stores or garages as may be the case, they will be preferably occupied by mimor retail shops such as a bookstore, a Novelty shop or a tailor's.

In the second floor:

- (I) Is the staircase room, same as described before.
- (2) Is a 4XI.50 meters corridors leading to a waiting space 3X8 equare meters.; It will be provided with few chairs and tables, where passengers or supplies and other business dealers have to wait for page (11)



Plan of " the First Floor "
"General Administration Bullding"
Scale : 1/200.



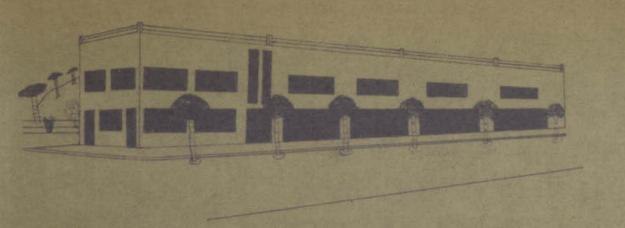
Flan of "The Second Floor"
"General Administration Building"
Scale : 1/200.

their turn to meet with any of the administration personnel.

- (3) Is a toilet room, and a front space communicating with the director's room on one side, and the waiting space on the other.
- (4) Is the director's room: its area is 4X4 square meters, is lighted and aerated thru two 2.25XI.25 windows: a door leads from it onto the accountent's room. A desk (bureau) and locker's with few chairs may be sufficient as furniture.
- (5and6) Are twin rooms, and are to be respectively occupied by the accountent and the manager, each one is connected to the space under "2" by a door and hatch opening for business. The furniture will be similar to that described at the director's office.
- (7) Is a 4X4 square meters storage room records may be kept there, as well as samples of goods that are put proposed by suppliers.
- (8) Is a 6X6 square meters waiting room; holding about 20 persons at a time: these will be the families whose tutor is funishing the formalities at the administration sector.

As far as external architectural details are concerned, we tried as much as possible to keep the relation between the general outside features of the colony as a whole: but we thought of giving this special building a fairly commercial shape, due to its function: this can be easily understood due to its location, then to the outlooking of its main facade.

Now if we turn to the inside decoration and bearing in mind the same idea as above, it will be of some advantage to paint all the units-except the waiting salon- with the same sandy colour which would appeal to the milk-seller will be to a rich client. The furniture itself will be rather of a cheaper quality, without any sacrifice in comfort. Whereas the waiting saloon should be an expanded model of page (12)



Perspective of "the General Administration Building" Scale : 1/200.

Elevation of "the Menument at Entrance"
Scale : 1/100.



Drowing No. 580/6

those discribed in one of the lodges: this being purposely meants so as to acclimatise our clients as soon as possible to there future dwellings and give them a good opinion about the colony as an a

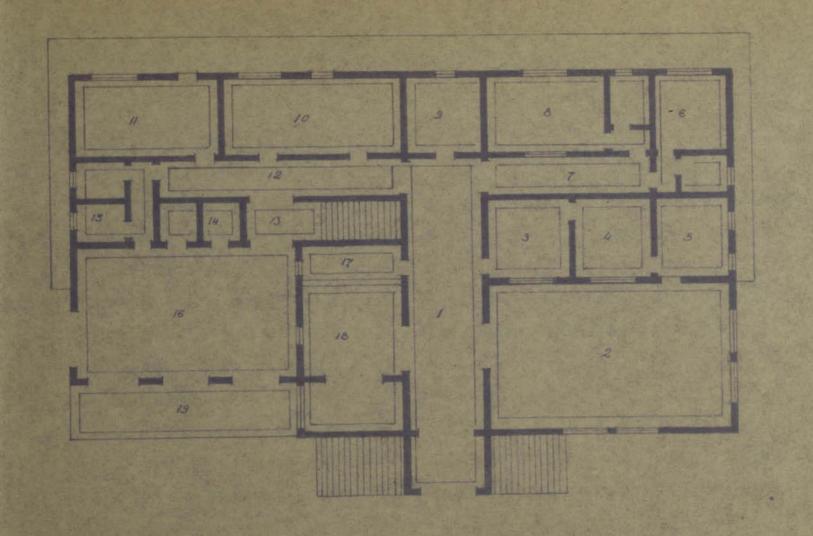
"AT HOME"

--- " MAIN SERVICE BUILDING "---

Here comes a three story building: the basement is 2.75 meters high; the first floor is at places 5.25 meters while at others is 4.20 meters (so as to keep the homogenity in dimensions); & the second floor is again 4.20 meters in height. It covers an area of 510 square meters, all as shown per drawing for the Main Service Building, and contains the following parts:

In the basement:

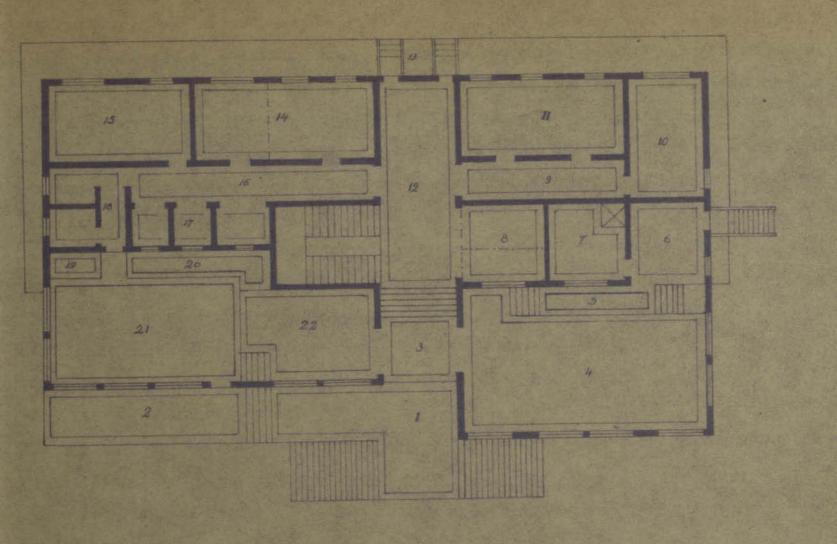
- I) Is a large entrance I7.5 x 4 square meters in area. Kitchen and storage quarters lie on either side; and at the very bottom are sleeping quarters for the maids and waiters.
- 2) Is the kitchen I3 x 7.5 square meters in area; ample space was provided for fire ranges, soyers, prepration tables etc etc.
- 3) Is a 4.5×4 square meters cold room, for keeping meat, vegetables and other kinds of food liable to get spoiled. A hatch communicates with the kitchen.
- 4) Is a 4 x 4 cuttlery, besides storages of dishes it includes as well a lift, that will extend from one meter above floor level up to the second floor, passing through the pantry of the Dining Hall in the first floor. Again a service hatch gives onto the kitchen.
- 5) Is a 4 x 4 washing and drying space, which is liable to be used as Dining Room for servents.
- 6) Is a 6.25 x 4 sleeping room and Bath Room for three maids.
- 7) Is a 8.5 x 2 corridor leeding to the servents sleeping quarters.
- 8) Is a 8.5 x 4 sleeping room and Bath Room for Four waiters.
- 9) Is the 4 x 4 Sleeping Room and office of the Head-waiter.



Plan of " Basement in the Main Service Building "-Soule : 1/200

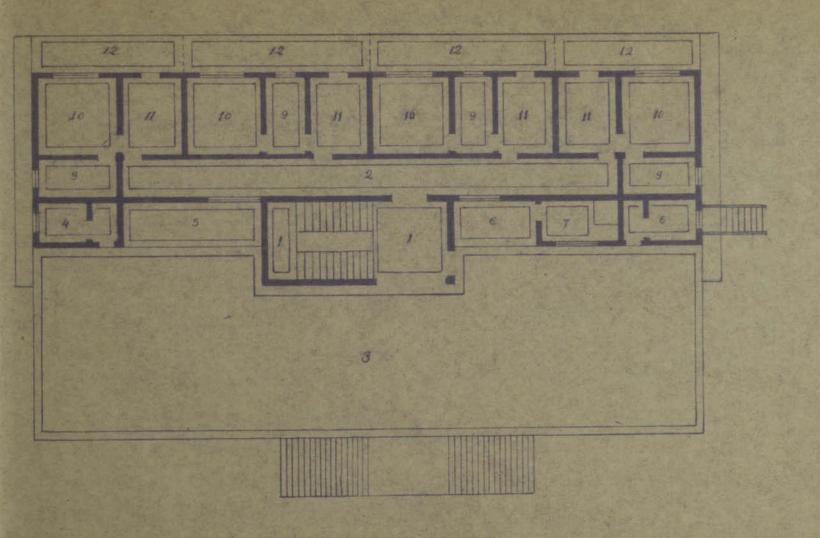
- 10) Is a 9.5 x 4 square meters room for linen storage.
- II) Is a 7.5 x 4 square meters washing and ironing spaces.
- 12) Is a 12.5 x 2 square meters corridor leading to the kinen storage and landry
- 13) Is a 8 x 2 staircase room leading to the second floor.
- 14) Are two 2 x 2 shower places adjoining the games space.
- 15) Is a 4 x 4 square meters space dedicated to toilet for the games space.
 - 16) Is an ample II.5 x 7 square meters games room containing tennis tables; billards and other light physical games equipement.
 - 17) Is a 5 x 2 square meters storage room for fuel.
 - 18) Is a 5 x 7.5 square meters food storage: such as grains wheat, and other preserved articles.
 - 19) Is a 12 x 2.5 square meters vacant space in front of the games room.

 In the First floor we find:
 - I) An open L shaped entrance leading to spaces (2)a(3).
 - 2) Is a IO.5 x 3 verandah, for the saloon No (21)
 - 3) Is a 4 x 4 vestibule giving onto the dining Room No (4) and the saloon No(21).
 - 4) Is a 13 x 7.5 square meters General Dining Hall, designed to hold 40 persons at a time, say 2 square meters/ person.
 - 5) Is an elevated landing in front of the service hatch of the pantry, with steps on both sides.
 - 6) Is a 4 x 4 square meters special Dining space to be occupied by children half an hour Before the regular meal times; and could be used as a prevate Dining Space for guests.
 - 7) Is an identical cuttlery-pantry to that mentioned under (4) in the basement.



Plan of " the First Floor in the Main Service Building "-Soule : 1/200

- 8) Is a 5 x 4 square meters room for the manager of the building, for the coats, and for the telephone .
- 9) Is a 8.5 x 2 square meters corridor leading to the quiet room (IO) and sitting room (II).
- 10) Is a 6.25 x 4 square meters quiet room, furnished with whairs, and tables for writing and reading; and a reserve shelf constituting a sort of a library for the passengers.
- II) Is a 8.50 x 4 square meters setting room, intended to shelter such persons who would prefer to keep themselves away from the noisy general saloon on particular occasions. The furniture will be similar to that of the main saloon as discribed below.
- 12) Is a II x 4 square meters centran entrancewhich includes the staircase leading to the second floor.
- 13) Is a 2 meters wide trench, with 2 passages above.
- 14) Is a 9.50 x 4 square meters games room (cards and other light games).
- 15) Is a 7.50 x 4 square meters infirmery for occasional patients.
- 16) Is a 12 x 2 square meters corridor leading to the games romm, the infirmery, and the booths under No (17) and the toilet romms under No (18).
- I7) Is a 7.50×2 square meters space composed of 3 compartements: one is for the shoe-shining, and the two others for a barber for ladies and men.
- Is) Is a 4 x 4 square meters including a Ladies Toilet, another for men and a small corridor (I.50 meters wide) in front.
- 19) Is a small corner of the Main Saloon (3 x 1.50 square meters in area) reserved for the Orchestra.
- 20) Is a L shaped bar, covering an area of 7.50 x 1.50 square meters of the Main Saloon.
- 21) Is a 9.50 x 5 square meters raised part of the Main Saloon, and which will serve patly as a dancing ring surrounded by tables and fauteuils of a rather rich quality.

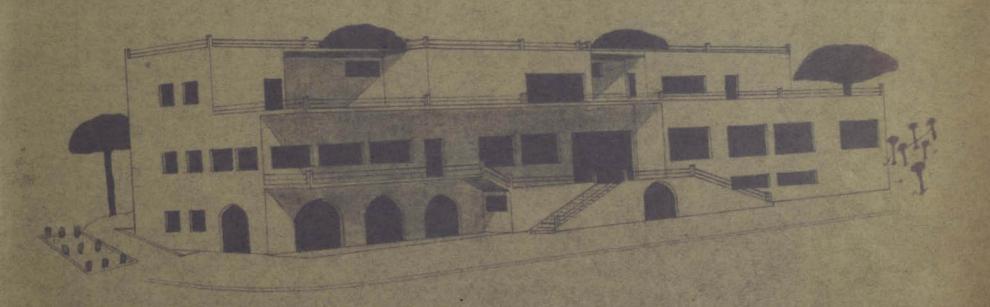


Plan of " the Second Ploor in the Main Service Pullding "- Scale : 1/200.

- 22) Is the 7 x 4.50 square meters lower part of the saloon It is to be furnished with tables and fauteuil as above and is destinated to hold up clients not wishing to participate to danses, but prefer to take a look at them.
- In the Second floor are found,
 - I) A 9.50 x 4 square meters staircase room and lauding giving to:
 - 2) A 26 x 2 long corridor serving the private small appartements as will be seen later.
 - 3) Is a 35 x Io square meters big terrace: "The open-air parties will be held on the left hand side portion; while refreshmen ts and drinks are to be served in the right hand portion) Light tables and chairs, with probably umbrellas for shade during the day time will compose the whole furniture.
 - 4) Is a 4 x 2 toilet room for ladies.
 - 5) Is a 7 x 2 square meters space reserved to the orchestra.
 - 6) Is a 4 x 2 square meters bar space.
 - 7) Is a 4 x 2 square meters pantry and soda fountain place, including the lift already mentioned.
 - 8) Is a 4 x 2 square meters toilet room for men.
 - 9) Are all 4 x 2 square meters baths rooms.
 - IO) Are 4 x 4 square meters sleeping Ropms.
 - II) Are 4x3 Square meters special living rooms.
 - 12) Are verandahs 2 meters in width.
 - Thus the groop composed of (9) (IO), (II); and (I2) constitutes a private small apartement for a couple.

This idea could be extended over to a 3nd floor.

Now the architemaural views of this building seen to diverge from the others: apparently the

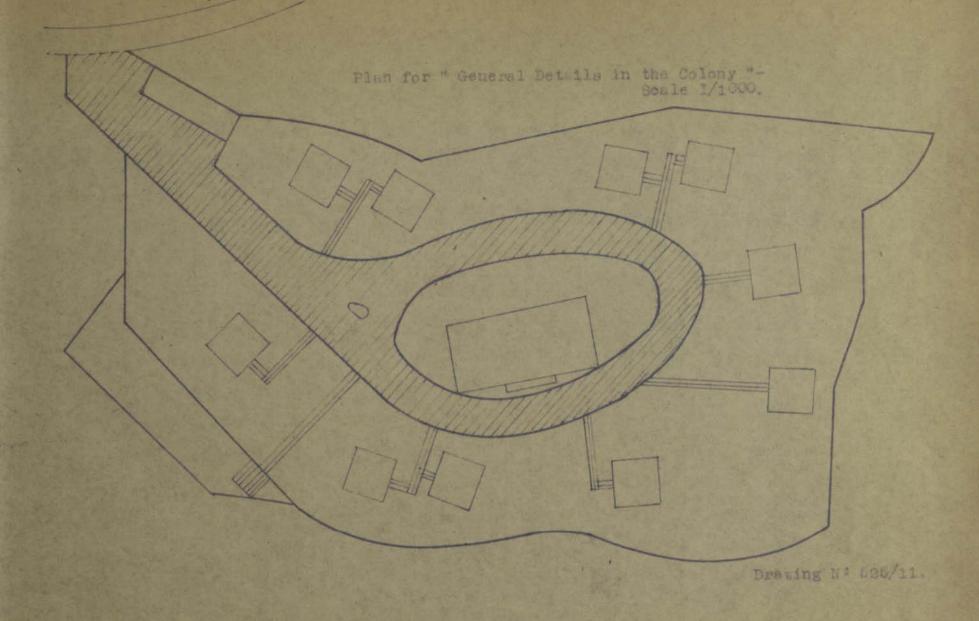


Pereportive of "the . Main Service Building".

Sizes of openings and stone layers will remain the same: but the distribution of them is to suit the inner furniture of rooms in question. We may also observe that the games-space in the basement was provided with arched-oppnings so as to get the maximum of sun rays and clean air. The dimensions in general will show a larger scale of those so far met with.

The inside decoration will be of a single oil paint colour conforming to the function of each separate unit. Bar and orchestra spaces will have a dados - as will be explained later. The furniture in general will have to be of a rich quality, so as to secure the maximum of:

--- " C O N F O R T "---



--- "ROADS-WATER SUPPLY-ELECTRICITY & SEWER-SYSTEM"---

Four essential factors governing realisation of a project similar to our summer diswelling will be : means of communitation - Supply in water. Artificial lighting & Exit to sanitation refews.

I Roads:

An improvised road, built up at the village expenses, links the site with the Damaseus road, as abready mentioned in the Chapter about the Site. It would be of some disadvantage to the project: if the gouvernment shall not take it over, to get it macadamized & then asphalted.

Inside the colony itself, the road, as shown on drawing N \$525/II assumes the shape of a semi-parabola, ending with a loop: access paths will join it to the different building endrancies.

a) Parabolic stretch:

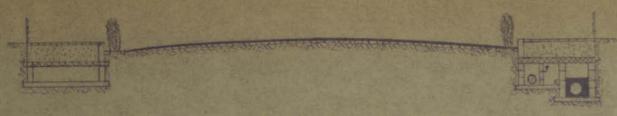
Is I5 meters wide: ten meters out of it are to be paved & covered with idealit. The shape of it is uniform, and estimated at 2 grade.

On both sides will lay side walks each 2 meters wide: 80 cem.below it in the sub soil, shall be the public utilities such as sewage & water conduits, electrical and telephone lines. A row of trees (of the Jacaranda type) occupying not more than 1/2 meter width to each side, will add up the 15th meter width.

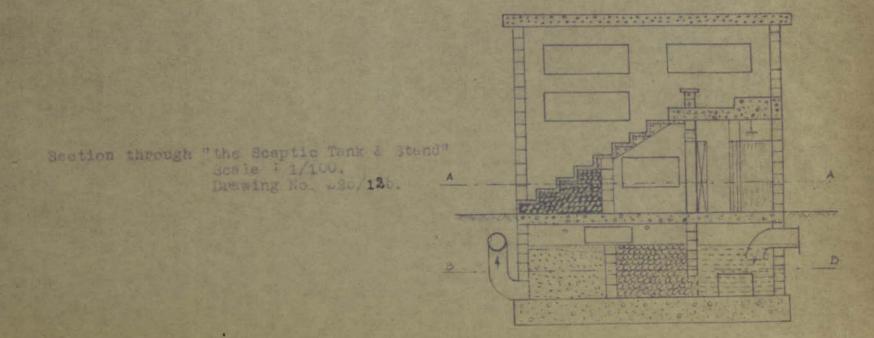
b) Loop :

Is similar in all respects to the parabolic stretch except that it becomes IO meters in width and a one way traffic. The pawd space is reduced to 6 meters in width and the sidewalks become I I/2 meters only. The space reserved for trees remaining the same.

page (19)



Bection through "the Main Road"
Scale : 1/100.
Drawing No . 525/12a.



e) Access paths:

are 2 meters wide: all paved with baked yellow tiles, and bounded with a continuous concrete curb limiting a flower bed I/2 meter wide to both sides; and 60 cms. below these parths, will lie the private sanitary, electrical and telephonic lines.

d) Comiche:

A path similar to the access paths shall encircle the whole colony and pass over the cliff bounded by a balustrade. Where the cliff projects outwards, we shall manage to have some kinsks for rest II Water Supply:

The Dhour Abadieh area shall be endowed with a 300 M.C. portion from the Barouk project for Water-Supply: but how much shall be the share in it coming to our summer Colony nobody can assumer | In any case, we will not consider any logical amount to satisfy 50 - 60 % of the requirement and needs. Thus we feel the necessity of adopting some other means to secure the necessary amount to cover the shortage.

A careful study of the Abadich Cadastral sheet I9, fewilles 9, would show that lot No in about 200 meters distant from the three lots on which stands the actual Summer Colony. That land belongs to the same proprietor, and has the advantage of containing a source, whose debit is evaluated at I M.C./hour. Then total discharge will be 24000 liters a day; I2000 out of which will go for domestic use - (60 persons X 200 L/capets/head = I2000) the remaining I200 Liters will go for gardening. (and in the future might be used for the creation of artificial cascades).

such suggestion would hold true as long as: I) the Barouk Company is not able to supply us with the necessary amount of water. 2) The source area is free of any housing, which due to their indepage (20)

pendant sewerage might cause at any time pollution. In that very worst case, we will be confined to accept our share in the Barock distribution, for palatable water (drinking and food) while a big water reservoir having IOOO M.C. capacity, will be stored with water gothered from raimfall, and which is good enough for washing and gardening use.

III Electricity :

The district of Abadieh in supplied with Electricity by the Baïda Electrical empany. But as long as the generation center at Deyshounieh (Beirut River) is already overloaded, it will more advisable that our power lines will be drawn from the Aïn Zhalta Main - Actually the Municipality when entering into a contract with the Baida Company, had forseen for such a clause.

Moreover, serious precautions have been considered in case of a conflict with, the Electrical Company: we established an Electrical storage center in the basement of the General Administration Building as shown on Drawing N° 525/6. It is meant to be equipped with a Diesel Motor, Supplying storage batteries with the necessary current for lighting the whole Colony. Special attention will be paid to make it the least noisy: and the motor will not be run except for two hours a day, preferably the last two hours before noon time.

IV Sewer System :

One of the most troublesome problems in most of our summer centers is that of Sewer Systems Practically speaking each separate house has an independent sceptie tank with its complementary conduits; and the trouble becomes threatening when the distern gets to its full capacity.

Similar is the ease in our Colony: with the exception that all the buildings would be served by a general sewerage conduit ending to a double sceptic tank. The idea is to have a reserve one for unforseen special conditions. The tank itself is split into three compartiments, one of which will

have to be free from any filtering aggregate, found near the entrance; while the two others will have the aggregate and are prepared to act as filters. In that case we will get rid of the maximum amount of harmless water in excess. (Please refer to drawing N°525/I3.)

These four essential factors, will bring our project or any other similar one to a seecess or failure, depending on whether the alternatives tould really replace the true procedure. This short study is a preliminary tentative, but need in the future a more eareful:

" STUDY "-----

----"DETAILS"----

I: Dwellings :

Living Spaces: The main parts of any building have been studied either with respect to the furniture they are supposed to hold; or else according to the vital space as required by one person for living.

Two demonstrations will be stated below:

a) All sleeping rooms; whether 4x4,80 or 5x3,50, are planned such as to hold a minimum of two beds; a cup-board; a table; one chaise longue and two small chairs.

Whereas the Dining Room, the Saloons and the terrace have been allowed for as 2 M.S. per person, counting that the full capacity of the existing colony is 60 persons, increased by 20 % for imforseen.

For other public rooms we have taken into consideration that not more than 15 % of the full capacity shall occupy the same place at a time.

Openings: Each separate room of any divelling is provided with an opening constituting a minimum area of I/20th of the total area of the walls. Living quarters have the proportion raised to I/I0th. The percentage becomes still greater in the public rooms and more than one exit is provided for each separate piece.

The fabrication and detailed drawings of such openings does not materially concern us, since they will be imported from abroad.—as an example take the Sursock Building, facing the Cinema Roxy— I say from abroad not because I underestimate our skilled labour: but because the foreign first materials and the equipement thereof is more advanced; and its products can more easily suit a country landscape, than our

II: Open Spaces :

Flour Beds: The garden of each seperate rate lodge is to have few flower beds, all rectangular in shape and conforming to the general shape of the lot. We propose that each separate lodge shall have the monopoly of a single colour or type of a flower: this inducing our customers to enter into contact with eachothers, being not except through business.

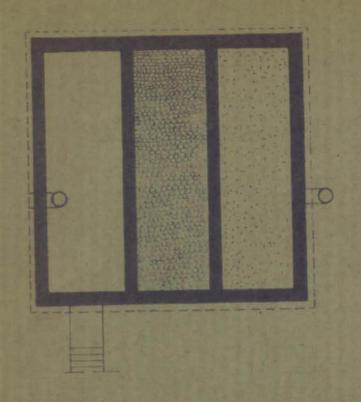
Green Belt: Shall be made out of 50 cms. wide by 2.00 metres high, harmless bushes. It will extend through the Eastern and Southern boundaries of the Colony, since to the two other sides, the cliff is a sufficient natural obstruction to the vist on of passers-by.

Fences: Boundaries between two adjoining lots, are to be marked by a low wooden fence painted in green, and cammouflaged inasmuch as possible with flowers to both sides, so as to attenuate the "crying" impression of separation.

<u>Playgrounds:</u> The lot under number?, below the cliff, to the N.W. side of the clony -approximately 800 M.S. in area_ shall be provided for playgrounds in the future: Tennis courts, Basket and Volley-Ball fields. It will serve at the present time as a play ground for the children, in the afternoons, away from theirsleeping parents.

Public Utilities: As shown per drawing No. 525/12 a, is the cross-section of a road; and beneath the right hand sidewalk are consecutively shown: the water supply pipe, electrical and telephone wires, and to the extreme right the sewage system. Whereas below the left hand sidewalk is a near ly culvert box drain.

Septic tanks: is a 7 X 7 meters Square, and 2.50 metres in hight. Its total capacity at one time page (25)

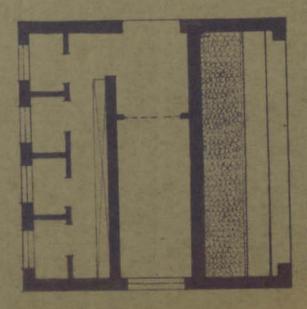


Flum of the " Sceptic Tunk ". Scale : 1/100.

Detwing Nº : 525/13 4 -

Flan of the "Sports Stand "-Scale 1 1/100

Drawling No : 525/13 b-



is I20 M.C. Considering that 50 litres/ capeta/day is the highest limit of refews, the total quantity at inlet will be: 80 passengers X 50 litres = 4 M.C./day.

A priod of thirty days (I20 M.C: 4 M.C/day) is more than enough to purify the foul water taken away at exit.

The tank by high itself is divided into three compartements: the first to the right (shown on drawing N° 525/I2 b) is a free room, where all semi - liquids and solids are kept and cleaned away later. The second compartement: is filled with aggregate, gradually diminishing in size upwards; and in the third liquids after passing through the second, will filter through a layer of fine powder and goes down then the sand; and at last are carried away by the exist pipe which extends, down to the valley: vent pipes are as well provided and carried away from the colony ... (for more information please refer to plan on drawing N° 525/I3 b)

Above the sceptic tank is planed for the future, a "stand "for spectators assisting to matches that are liable to be held on the adjoining courts....

So long, have been considered, only such details particular to our summeré colony: they have been studied to conform with the

--- " ENVIRONMENT "---

CONCLUSION :

--- EXPECTED EFFICIENCY & FUTURE EXPANSION OF THE PROJECT. "---

So far we have been presenting the project to the readers both under its bulk shape and particular details of some interest. The shape our dimension presumed, is that of an investigation supported by some facts: several of these facts may appear flue or even incomplete to the opinion of a technical person; but the subject shosen for this course, in its true execution, lends itself more to be read by few engineers and several others... Hence, we were supposed to write it averagely comprehensive for the time being.

A word about its expected efficiency, as the present conditions stand; which we hope to improve in the future post-war time:

A brief but accurate study in the quantity Serveying course resulted in that one square meter of area of building/floor (including all implement parts) would not cost more than 15° L.L.S. And since 2000 square meters are to be built:

Total cost of buildings is: 2000 x I50 = 300,000 L.L.S.

Roads, gardens and playgrounds: = 40,000 L.L.S.

Severage, electricity and water supply: = 30:000 L.L.S.

Furniture and equipement: = 130,000 L.L.S.

The overall cost will them be: 500,000 L.L.S.

approximately half a million lebanese pounds, not including price of the land which is to be highered for a certain number of years....

The output of the Colony as a whole is expected to be as follows:

Ten lodges rent at 2000 L.L.S. each

The Main central building rent at v

The play grounds and others

The total income will then be

= 20,000 L.L.S.

= 20,000 L.L.S.

= 10.000 L.L.S.

= 50.000 L.L.S.

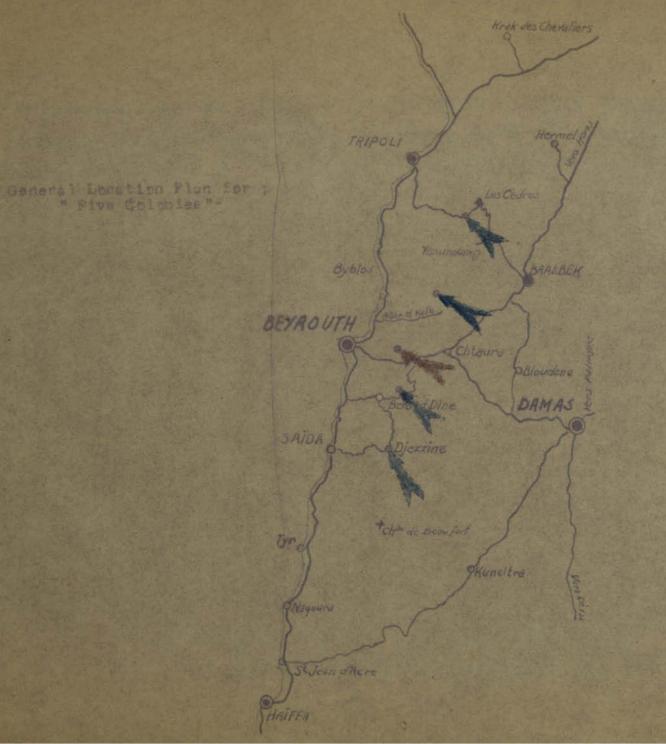
This figure constitutes 10 % as rate of interest to the total capital invested, which is a fairly high income, even after deduction of taxes and overhead expanses.

If the colony is to be run at one own, the overhead and timforseen expenses might go a little higher: but obtained results will be superior, I suppose. Some items that are probably to be lacking if the colony is run by a sub-Contractor:

- a) One or two coach-cars ready for transport of the clients, at any time of the dayn to the Capital or the other summer centers.
- b) An agreement made with some touring club or Transport companies so as to provide our clients at regular intervals, with motor-Busses transporting them to some of the Baalbeck and other places.

A last suggestion will concern the future expansion of the projects

The summer- Season in Lebanon extends, from the I5 th of June till the end of September, expessed in units it lasts around I05 days. Now, supposing instad of having one single colony at Dhour-Abadiyeh, we take the case of 5 colonies: the remaining four will be scattered; one near Hasrun; the Other at Meiruba, the third above Chimlane; and the fourth at Djezzine. Hence the idea of shifting our clients every three weeks to a new place, thus making visit most of the libanese summer center's within one season.



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Finally I will conclude that my project should be understood as I meant to be an advertisement more than any thing else ... It still assumes a potential form of energy: but every one of us dreams of realizing his plans - though liable to changes - in their very essential principle as his first thought of it. But young as we are, our hope is mostly dependable: Hope is factor of "To-Morrow' and to-morrow is the:

--- FUTURE "---

(THE END)

