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IKLIM EL KHAROUR GOVERMENTAL CENTER

AMERICAN UNIVERSITY OF BEIRUT

DEPARTMENT OF ARCHITECTURE

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SHHIM GOVERNMENTAL CENTER

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INTRODUCTION

When studying the actual communal living condition with Iklim, we came to attest that this area faced ...

Under the Architectural sedulous drives along with personal motives, a certain conception of Architectural practice begins to formulate a particular complex mode of operation that always tries to implement the ethical role.

For the architect to understand the built environment and have a conscious contribution that looks for the betterment of communal life...

Within this ambiance the architectural work becomes a notion that does not flee its contact ...

The case study at hand turns around the provision of a Centralized Regional governmental center for the Region of Iklim Al-Kharoub.

This sector cannot be observed without co-refernce to complex personal interests and sensing of local societal problematic.

Al-Iklim is an important demographic setting of the Chouf and Mount_Lebanon. Adding to its socio_political dominant role its strategic geographic profile makes of it one of the influential and highly potential regions of the whole country...through decades, this region had its profound contributions on the regional and local political, administrative, cultural, and financial circles; this important exposure of the area was part of a special attestation

was part of a special attestation noting that this specific interest in the study of a potential revealed personal drives in deducing contributive architectural interference in the Iklim.

marked by individual endeavors. faced harsh forms of neglect, technical poverty and lack of all civic and modern infra_structure and the absence of administrative and governmental services leaving the community under self mobility systems circling around chaotic spontaneous individual enterprises which came to mark a deteriorating image that lacks order and disciplinary planning.

The architectural investigation on the area socio_cultural aspects of the locale in the ecosystem between the built and natural environment where congestion and hygienic problems seem to be severe...

The complex character of the problem and its broad manifestation came to stress a need for an organized capable institution to provide the base for any future attempt to control delimit and devise solutions or basic problems . During the war, the Iklim lacked the presence of any governmental activity noting that such contribution was minimal even before the civil war, making of the distant relation between the population and the administrative body much bigger and severe.

The architectural role came to be discrete in terms of its contributive modes or the level of planning and developmental organization relying on piecemeal solution presenting a shy role to devise a setting for the presence of the institution, and the professional body to cater a minimal of the problem stating and solving. Making imperative the sorting out of a solution tying various forms of functions defining the type of project as being an institutional setting that would house governmental activities.

Understanding sets the constraints and limits of the problem stating and solving making imperative the sorting out of a solution tying various service sectors in one project to provide a suitable complex englobing various forms of functions defining the type of projects as being an institutional setting that would house governmental activities that should help to assume the type of the project and its characteristics which do require for a complex.

Joining various forms of administrative and civic services addressed to the general population of the Iklim trying to provide adequate space for a governmental administrative center.

* MOTIVES:

The Iklim is the victim of neglect. The lack of hygiene character reveals severe problems. The exploitation factors shows in illegal practice in over building and neglect of set backs with a high density revealing problems of congestion and unskilled technical adjustment with the sites, the lack of planning and discipline on the scale of the built form and social practice are part of spontaneous semi- vernacular attitude that a chaotic form express the event of construction booms with housing harsh conditions.

The non categorized character is the expression of the mixture of semi industrial activities with a residential quarters resulting in a "blend" that contradicts any sane and healthy dwelling conditions. The lack of infrastructure comes to be the culmination of the eroded character of the region (electricity, water, telephone, road, sewage...), on the scale of general levels on the social, cultural, legal, aesthetic, environmental ...?

The areas dismissed the forms of governmental presence, this institutional absence partly was part of the causes of deteriorating conditions that face the Iklim and rendered the responding to the growing needs of the region, an event left for self mobility practices which didn't help in solving the problems other amplify the congestion and density chaotic manifestations.

This situation came to mark an urge to establish an administrative center to serve the Iklim apart from already established small satellite services in the Chouf areas.

Project Type:

This project (El-Iklim Governmental Center) is dedicated to a broad demographic locale. The type of functions are satellite governmental units that will care for civic services and infrastructure maintenance. The size of the project will be determined in accordance with a local reference to a semi rural population of 180000 persons. (A population statistics assess by local authorities.

The project will provide office and work space for governmental employees ranging from directors to professionals, to labours all contributing through already established codes and regulations to provide suitable conditions for the community they serve.

N.B. The program of space requirements will provide a clear perspective of the project magnitude and basic characteristics and functions. This space analysis is essential for deeper examination and description of potential activities and needs required for administrative center as being an expression of actual growing communal needs for service.

existing services

EDL office

Civil deffence quarter

police statue

general security office

Court house

Municipality

personal affairs office

Water resources office

Telephone office

Court house

Lobby + waiting

* Court

* Judge's suite:

* Judges' office m.sq.

1- Judges' office 30 m.sq.

2- Library 16 m.sq.

3- Judges', toilet 12 m.sq.

4- Secretary'+waiting

* Attorneys quarter:

1- Conference room 30 m.sq.

2- Lockers room 12 m.sq.

3- Library room = 25 m.sq.

4- Office = 30 m.sq.

5- Secretary = 25 m.sq

* Witness room

* Guards' room

* Kitchenette

* Toilets

* Janitors

Municipality of Shhim

* Mayor's office
* Secretary's office
* Conference room
* waiting + employees
* Employees lounge
* employees lounge
* Toilets
* Janitors
* Kitchenette
* garage for 4

Garbage collector

Municipality Police

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* Directors' office
* waiting + employees
* employees lounge
* dormitory
* Toilets
* Janitors
* Kitchenette
* 4 patrol parking

Public relation

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* Lobby + waiting
* Directors office
* Secretary office
* Library
* Multi purpose hall
* auditorium
* conference room
* Janitor's
* Toilets 3 x 12

Kitchenette 16 m.sq.

Ware houses

Director's office
Employees lounge
EDL storage
Water resources storage
Telephone office storage
Civil defense storage
Public Relation storage

Services

Employee lounge
* Electricity room
* Heating & cooling room

Parking

Supervision room
* employees parkings
40 cars
* visitors parking
* 100 cars

Police Station

Reception +waiting
+employee office
* detectives division
* interrogation room
* records room
* dormitory room
* chairman office
* kitchentary office
* Toilets
* Janitos
* Parking

Jail

*Visitor's room
*Laundry + Janitors
*Kitchen
* Cells (Men +women)

Office of general
Security Role : -

* Waiting+ employees
* Offices for different
divisions
directors: 16 x 3
* Directors office
* records room
* Kitchenette
* Toilets
* Janitor

Personal affair office

* Waiting + employee
* Chairman's office
* Division director's
Office: 16 x 2
* Records room
* Kitchenette
* Toilets
* Janitors

EDL Office

* Waiting + employees
* Directors office
* Secretary + Recep
* Office of # division's
Directors 2 x 16
* records room
* Toilets
* Janitors room
* Kitchenette

Water resources office

* waiting + employees
* Director's office
* Secretary + recep.
* Office of # division's
Directors 2 x 16
* Records room
* Toilets
* Janitor's room

Post office

* Box office
* Telex office+w
* Director's office
* Lobby
* Storage
* Employees lounge
* Toilets

Telephone office

* Waiting+hold of+employee

* Director's office
* External calls office
* Telephone cable room
* Record's room
* Toilets
* Janitor's
* Kitchenette

Civil Defense quarters

* Directors office
* # division director's
  Office 2 x 16 m.sq.

Employees offices + lounge
* dining + kitchenette
* Lockers +changing room
* dormitory
* Storage
* Toilets
* Garages

SITUATION AND SITE:

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* LOCATION : a general description

Iklim al Kharoub is geographically located in the south western part of the Chouf area delimited from the south and south_east by the Awali river separating it from northern Saida. To the north its edge is marked by the DAMOUR river while to the west it overlooks the Mediterranean.

The general surface of the Iklim is 167 sqkm which is equal to 1.6% of Lebanon. The cost is of 17 km climbing up to 1000 m above sea level. The official number of villages in the area is 51 while the actual villages is 35 in number.
The number of population came to be 180,000 persons with a density of 60 persons/hectar, while the average density in Lebanon is of 40 persons/hectar.

Shhim and Barja are to be considered the largest demographic centers. Shhim as a population of 18,600 persons while Barja is of 16,100 persons, taking the circulation network and population density the outskirts of Shhim shows as being the in most strategic position that links the various dense 35 villages of the area. During the war and even pre_war, Shhim was the quasi_administrative center of the whole area. Observing the semi urban texture of the Iklim and the formation of dense settlements getting dense in the centers of villages or towns.

The boundaries are being diminished and the identification of different settlements is difficult, the susceptible change tells us that these agglomerations would come someday to be linked all together, this would convert the dessiminated area into a setting where a border line a threshold came to diminish joining various villages and rendering them a joined human settlements. The main problem on the architectural scene reveal over human settlement congestion especially in the center "Shhim".

As mentioned before, the actual center of gravity of the Iklim region is Shhim. This small town is marked by a high popu-

lation ? density with respect to its topographical conditions, the feed ? to rearticulate the administrative services cannot disregard the fact that still Shhim represents an important demographic setting with all that this has as socio_political connotations. Shhim in its actual and future projected conditions cannot welcome the presence of large construction operations within its confines while its southern outskirts still are important as a main connectors with the complex circulation networks also the side is directed towards the most dense setting where the human agglomeration large in number is present namely to the West of him ...

The fringes of Shhim:

1- To the east extends distributors leading to Daraia, Anot, Hasrout, Bsaba, and Gharipha.

2- To the west we have the Bourjain, Dahr_el_Mghara, and Debbeyeh.

3- To the south, on the main artery that is the primary distributor to the whole village of Iklim_el_kharroub leading to Wadi_el_Zeine which connects the whole region with Beirut and Saida on the main coastal highway.

As mentioned, the site is at a crossed leading to various important settlements of the area and allowing diverse perception range distances. The roads, the passes in its vicinity, tangent to it, this would require an architectural interference to reduce this lateral perception and allows for a volumetric articulation to mediate a frontal exposure and allow to introduce a new visual event on the accessibility road and at the facing crossroad.

* ENVIRONMENTAL ASPECTS:

The prevailing architectural texture reveals a semi-industrial vernacular construction activity relying on spontaneity and self social mobility. These factors are marked with a chaotic highly dense exploitation of the sites taking into consideration building factors not responding to required set_back with a primitive unskilled treatment of the topography, adding to this problem the eroded and neglected aspect of roads which are not adequate for traffic requirements. The infra structure is a lacking network in the region attesting the absence of the governmental activity and showing the levels of neglect that the region has suffered from. The land use marks a chaotic interlocking of functions which does not create a healthy dwelling and working environment with this anti_hygienic aspect of the region comes an antagonist outlook that faced the natural environment, by semi industrial practices and lack of appropriate sewage system and garbage waste removal converting the natural environment into a large disposal area. Due to such harsh conditions of

living the built environment and its effects on the area came to create severe social cultural hygienic problems requiring a thorough and long process of involvement in the planning and control of enterprises held by institutional corporations between the public and private sectors to enhance and protect the natural environment and provide the built environment with appropriate control and planning and to built an infra structure network that responds to the rising needs of the whole area taking into consideration futuristic growth.

Adding to the severe constraints of the topography, the life style and the lack of aesthetic values and a harsh economic situation all come to deteriorate the living conditions especially with the absence of serious civic services presented from the state. Any architectural venture will define a professional interference whenever this presence of a rational coherent planing that will create a thematic contradiction with the chaotic

vernacular aspect of the region. This architectural enterprise could become an asset whenever we add to its function a contributing study of an intelligent treatment of the site and its relation with its neighboring environment. This policy could be benefecied whenever the financial which could set a mature and disciplined approach setting the paradigm for a comparative treatment of same site conditions. Feasibility and economical treatment of architectural features could establish a paradigm helpful to the citizens in how to approach "the context".

The project would not address its surrounding as a closed locale, and neither will expose itself as a highly dominant institutional presence that confronts the imagery of the area rather the architecture language would mark a discrete interplay of volumes and light to create aesthetically agreeable features taking into consideration human scale, humble subtle ambiances and a matching with the type of visitors thus having a minimalist aspect that could bare practices of rural type of visitors. The structure would in spite of this retain and institutional image not embarrassed from its aim to mark itself as a reference.

Architectural Style

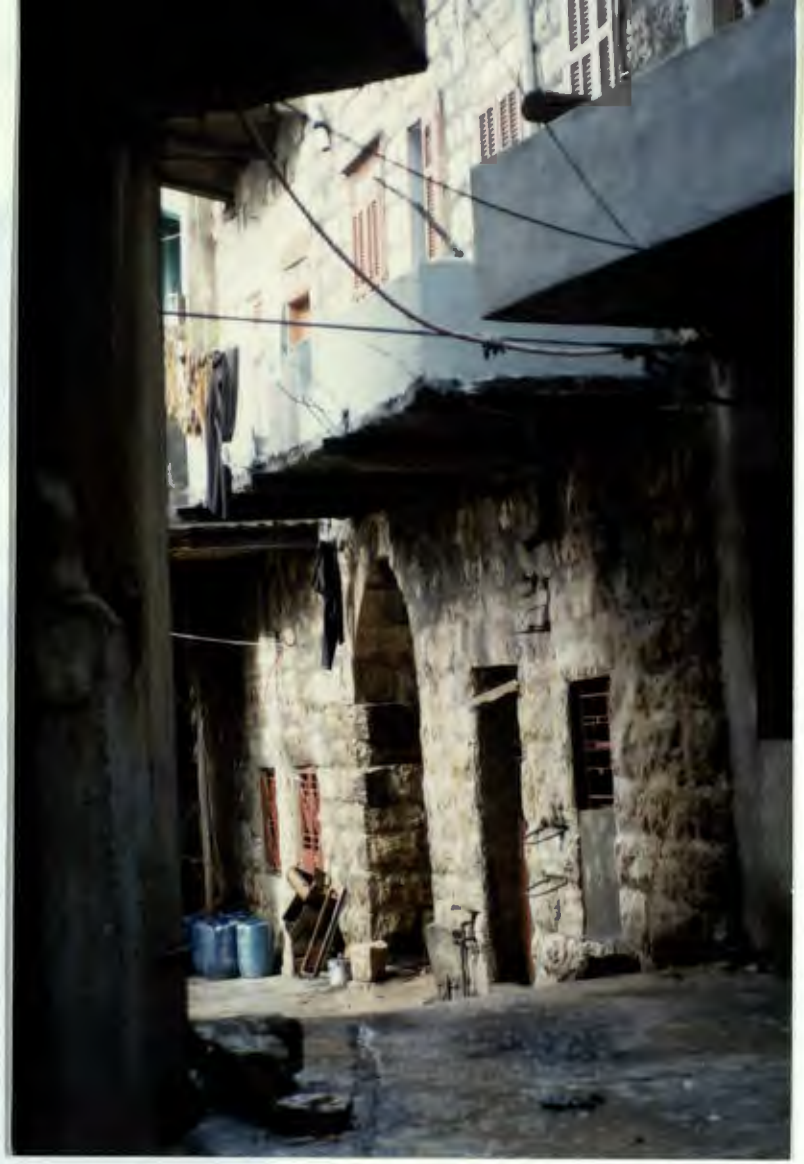
man made evironment

Texture of the region

dealing with topography

over structure

infrastructure



Entrances and stairs

2- CLIMATE

A- RAINFALLS.

. Geographical repartition of the rainfalls: The winds coming from the west bring humid air that cause rainfalls when they get higher to the mountains. Rainfalls increase usually with the altitude, but the hills and mountains exposed to the sea.

. Monthly reporting of rainfalls: January, then February are the most watered months: A certain symmetry is observed between the months:

January - February

December- March

November- April

October- May

September - June

. MMs of precipitation:

Seasons:	site 450 m
Autumn	145 mm
Winter	492 mm
Spring	190 mm
Summer	3 mm
Total Yearly:	830 mm

. Frequency and variability of rainfall: if the total quantity of rainfall precipitated in Lebanon is EQUAL to what is collected in central or ocean Europe, the number of days of rainfall is TWICE LESS.

B- TEMPERATURES:

The fluctuation of temperatures is much less considerable than that of the rainfalls.

SEASON	MONTHS	MEAN TEMPERATURES
FALL	Sept-Oct-Nov	20.6
WINTER	Dec-Jan-Feb.	12.1
SPRING	March-April-May	16.3
SUMMER	June-July-August	23.9
MEAN YEARLY TEMPERATURE		18.3

C- RELATIVE HUMIDITY:

The relative humidity is maintained by the Western wind coming from the sea, this explains the fact that the cost is much more humid than the interior.

It is interesting to notice that the high values of relative humidity are very favorable for vegetation, and very uncomfortable for people, especially in Summer.

FALL	66%
WINTER	66%
SPRING	67%
SUMMER	73%
YEARLY	68%

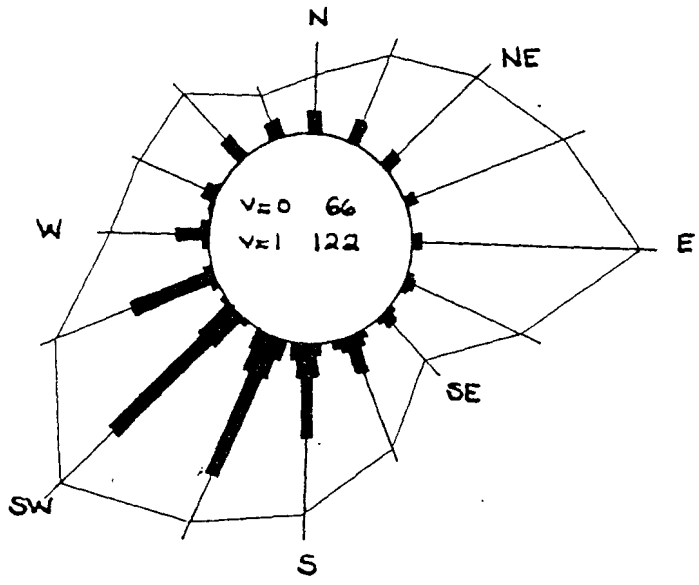
D- WINDS:

The WINDS coming from the sea are the strongest when they come from the south-west. Their velocity is greater than 6m/sec and when they blow south-south-west their velocity *** more than 11m/sec.

In spring,the south winds are shifted to the south-west because the perturbation trajectory shift North.

Twice a year, the wind calm down:

- A short break in May
- A long one October and November.



Velocity V > 1m/sec --> east winds dominating

Velocity V > 2m/sec --> south-west winds dominating

Velocity V > 6m/sec --> south-west winds dominating

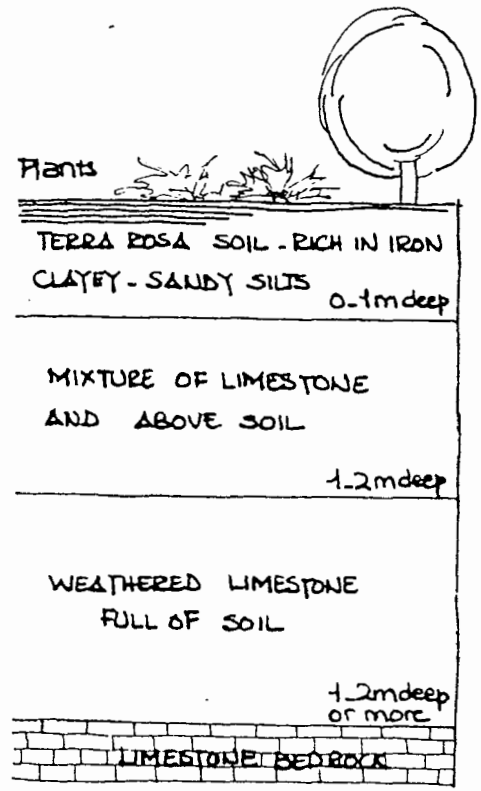
Velocity V > 11m/sec --> South-South-west winds dominating

3- GEOLOGY AND SOIL

From these sections we can notice that the soil is of cenomanian nature. Cenomanian is an age classification of soil . The older the rock, the stronger it is and the stronger are its derivate. Cenomanian is mainly calcareousness limestone. It is compact, hard, thickly bedded limestone, very good for construction. The depth of the bedrock is 600m.

The top soil varies between 30 to 50 cm. In valley places the top soil reaches 3m thick. This layer is fertile because it received the maximum sunlight, ventilation and water. Shrinkage of the soil is very low because the clay content is not the prominent. before construction , we must remove this layer and keep it for use in planting.

The depth of the bedrock goes to 600 m.



4- ECOLOGY

The area is heavily forested. Especially when we get closer to the sloped, the trees are much thicker because , with time, the rich soil has slide towards the ridges.

Landscaping should contribute to the quality of the complexes, softening the rigidity of its appearance. But it should not be dominating, otherwise it will deprive it from its potential and change its character.

Trees species found on the site are pine , trees and olive trees.

5- INFRASTRUCTURE

UTILITIES: Such as water supply and distribution, electricity, sanitary, storm water and a sewerage have to be considered, because no previous construction is encountered on that area and which this compound have the role to provide such services.

Traffic PATTERN: See maps

6- DRAINAGE

SURFACE DRAINAGE: Freshly cut or filled slopes will erode, they must be drained properly with interceptor ditches or terraced. Interceptor ditches are drainage channels located at the top of the lope to intercept water from above before crossing down and causing erosion. Terraces are intermediate areas on a long slope which includes interceptor ditches.

SUBSURFACE DRAINAGE:

a- Collection: Water travels in lines of least resistance and will flow freely to gravel, then to the perforated pipe, when it can be transported and disposed.

b- Transportation: in a closed underground system, from collection points to final distribution location. Pipes operate on gravity and require minimum slope of 1%

7- THE SLOPES

Kinds of activities encountered on slopes:

. Slopes under 1% do not drain well

. Slopes under 4% seem flat and are usable for all kinds of intense activities.

. 4% < slope < 10% appear as easy grades, suitable for informal movement and activity.

. Slopes > 10% seem steep, make unfavorable roads and can be actively used for hill sports or free play since gradients above this point require noticeable area to surmount.

. A 15% slope approaches the limit that an ordinary loaded vehicle can climb for a sustained period.

. The slope of mowed surfaces must be kept under 25%.

. Sloped over 50 or 60% cannot be protected from erosion in a humid climate except by cribbing a terracing.

Legal Factor

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According to the building law Shhim is considered to be an unorganized region and according to the laws applied on such areas.

Surface exploitation = 40%

Floor area ratio = 0.8

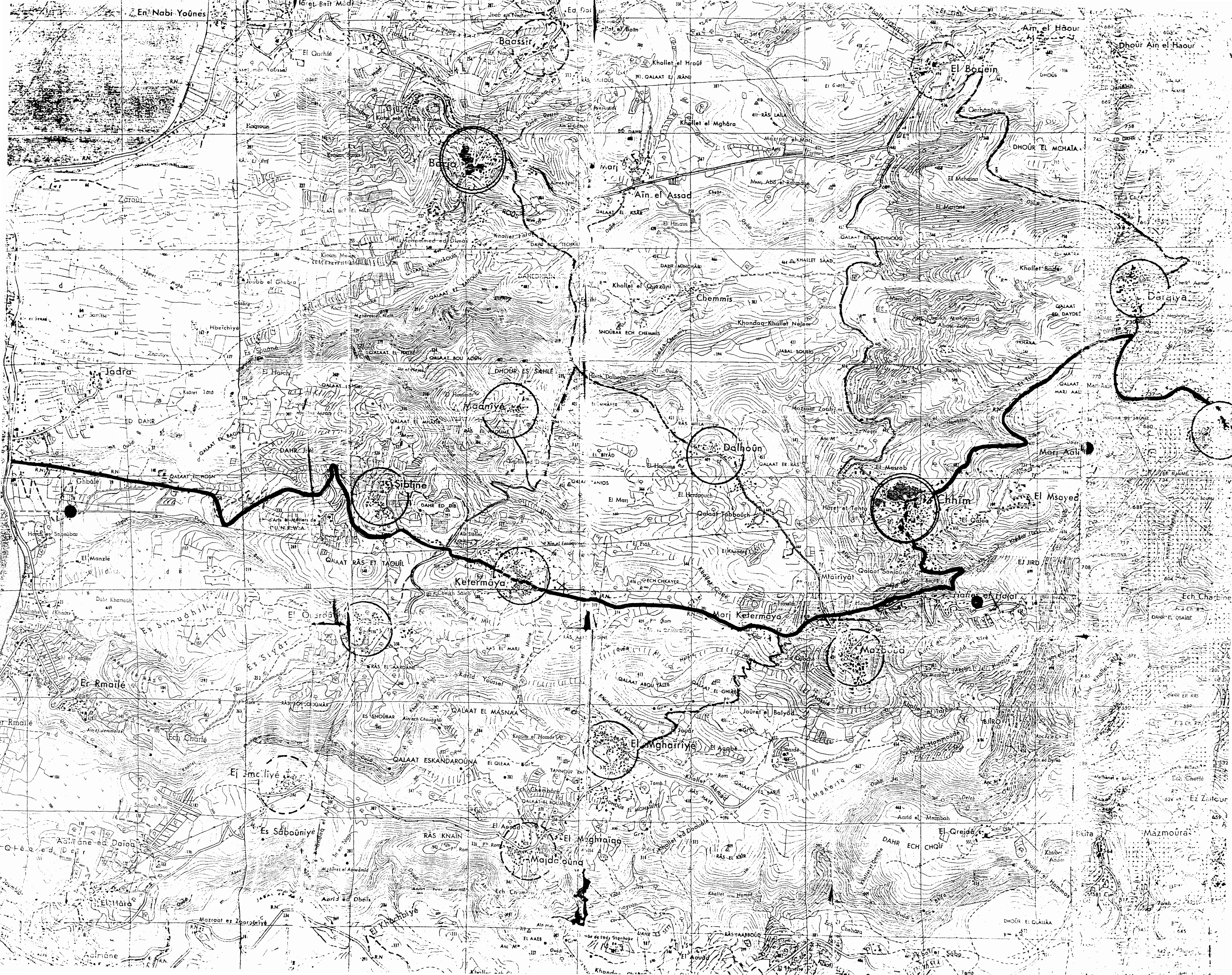
Set backs : - From the main road = 12 m from road center

- From the secondary roads = 3 m

- From laboring parcels = 3m

No. of floors (without calculating the additional structure above the last floor and the attic floor which should not exceed 2.5 m in height) = 3 floors maximum height of building from the lowest point of the intersection of the facade with the natural ground .

Disregarding the attic height = 13.6 m.


En Nabi Yoûnès
Baassir
El Qachlé
El Borjein
Ain el Haour
Dhoûr Ain el Haour
Khallet el Mghâra
Barja
Marj
Aîn el Assad
Zaroût
Chemmis
Joubb el Ghabra
Hbeichiyé
Es Spaîné
Jadra
Daraiya
Maaniyé
Dalhoûn
Ed Dahr
Sibline
Chhîm
El Msayed
Marj Aali
El Manzle
Ketermaya
Qalaat Râs et Taouîl
Marj Ketermaya
Mlairiyât
Ech Charbine
El Ouardâniyé
Mazboud
Er Rmailé
Ech Charfé
Qalaat el Masnaa
Qalaat Eskandaroûna
El Mgharriyé
Ej Jmeiliyé
Es Saboûniyé
Majdaloûna
El Maghairaq
El Hâra
El Khachbiyé
Dahr ech Choûf
El Greijé
Mazmoûra
Ez Zaitoûn
Aalmâne


Gharifé
Hasroût
El Mtollé
Bsâba
Baïqoûn
Mazraat
ech Choûf
Aïn Qaniyé
El Kahlouniyé
Ech Chaouâya
Marj Hlâl
Ed Delghene
Mazraat Khafiché
El Jerbâne
Hâret Jandal
Jiblayé
Ed Dagboun
Dj Jourd
DAHR HASROÛT
JABAL BAÏQOÛN
Dahr Daoud
Horch Aatrine
Ech Cheikh Abdallah
Ed Debché
Sadd el Khirbé
EL HARF
KHIRBET SARSOÛRIT
Hâret el Ouasta
Bzina

BAN

ROUTIER

TRIPOLI

BEYROUTH

SAIDA

BAALBECK

Deir el Ahmar

Becharré

Ehden

Bcharré

Zahlé

Baabda

Aley

Beiteddin

Jezzine

Machgara

Rachaya

Hasbaya

Nabatieh

Marjayoun

Tibnine

Beit Jbeil

Main artery

Ikllim el KHROUB BOUNDARIES

LEGENDE

L'EPAISSEUR DE CHAQUE TRAIT CORRESPOND A L'IMPORTANCE DE LA ROUTE

Asphalte	———
Cylindrage	- - - - -
Ouverture	— · — · —
En projet	.....

Ministère des Travaux Publics, Service de planification et des programmes

I.R.F.E.D. N° 112

DALHOUN

SHHÎM

NAZBOUD

N

View toward the Sea

toward the sea

toward DIMASCUS

toward Hayfa el HADJAL

toward Hayfoud

R

R.C

C

street directions

administrative boundaries

site boundaries

R. residential

C. commercial

Panoramic view of the site

neighbouring site

Sire pictures

Court House Role: - To judge in the civic cases that don't exceed 10,000,000 L.L.
- To judge in any case that don't require any prisonment for more than three years.
- To Judge in compensation cases for unlimited sum of money.

Court house	Net m.sq.	Staff	Occupants
Lobby + waiting	80 m.sq.	2	50
* Court	150 m.sq.	7	50
* Judge's suite:			
* Judges' office m.sq.			
1- Judges' office 30 m.sq.			
2- Library 16 m.sq.			
3- Judges', toilet 12 m.sq.			
4- Secretary +waiting	68 m.sq.	2	-
* Attorneys quarter:			
1- Conference room 30 m.sq.			
2- Lockers room 12 m.sq.			
3- Library room = 25 m.sq.			
4- Office = 30 m.sq.			
5- Secretary = 25 m.sq.	122 m.sq.	2	12
* Witness room	40 m.sq.	2	6
* Guards' room	25 m.sq.	4	-
* Kitchenette	6 m.sq.	-	-
* Toilets	12 m.sq.	-	-
* Janitors	9 m.sq.	2	-
Total Area:			
+ 25% circulation	640 m.sq.	13	-

Municipality of Shhim	Net m.sq.	Staff	Occupancy
* Mayor's office	40	1	-
* Secretary's office	30	2	-
* Conference room	50 m.sq.	12	-
* waiting + employees	100 m.sq.	12	25
* Employees lounge	40 m.sq.		
* employees lounge	40 m.sq.	10	-
* Toilets	12 m.sq.	-	-
* Janitors	9 m.sq.	2	-
* Kitchenette	6 m.sq.	-	-
* garage for 4 Garbage collector	80 m.sq.	-	-
Total are + 25% circulation	497 m.sq.	32	-

Municipality police role:

- To take care of clean aspects of the town
- To guard the town
- To control the vehicular situation
- To control building construction

Municipality Police	Net m.sq.	Staff	Occupant
* Directors' office	30 m.sq.	1	-
* waiting + employees	50 m.sq.	6	-
* employees lounge	30 m.sq.	6	10
* dormitory	30 m.sq.	6	-
* Toilets	12 m.sq.	-	-
* Janitors	9 m.sq.	-	-
* Kitchenette	6 m.sq.	-	-
* 4 patrol parking	60 m.sq.	-	-
Total area + 25% circulation	284 m.sq.	15	-

Public Relation Role:

- To help satisfy some social cultural needs
- To allow for public enclosed meeting space
- To allow for exhibition spaces for the cultural products

Public relation	Net m.sq.	staff	occupancy
* Lobby + waiting	120 m.sq.	4	100
* Directors office	40 m.sq.	1	-
* Secretary office	25 m.sq.	1	6
* Library	750 m.sq.	5	-
* Multi purpose hall	150 m.sq.	3	100
* auditorium	350 m.sq.	5	250-300
* conference room	60 m.sq.		25
* Janitor's	12 m.sq.	4	-
* Toilets 3 x 12	36 m.sq.		-
Kitchenette 16 m.sq.	-	-	-
Total are + 25% Circulation	1930 m.sq.	18	-

SPACE REQUIREMENTS

POLICE STATION ROLE - Receive complaints

- Investigations
- Arrest for maximum 48 hours
- Police patrol distribution

Police Station	Net m.sq.	Staff	Occupation
Reception +waiting +employee office	120 m.sq.	16	20
* detectives division	40 m.sq.	4	-
* interrogation room	25 m.sq.	3	1-4
* records room	25 m.sq.	1	-
* dormitory room	16 m.sq.	4	-
* chairman office	30 m.sq.	1	-
* kitchen(ary) Jo office	6 M.SQ.	-	-
* Toilets	12 m.sq.	-	-
* Janitos	9 m.sq.	2	-
* Parking	100 m.sq.		
Total area + 25% Circulation	454	22	-

Jail	Net m.sq.	Staff	Occupant
*Visitor's room	40 m.sq.	2	10
*Laundry + Janitors	36 m.sq.	2	-
*Kitchen	20 m.sq.	1	-
* Cells (Men +women)	120 m.sq.	2	20
Total Area + 25% circulation	270 m.sq.	6	-

Civil Defense quarters role:

- To help extinguish fires, especially in the forests
- To help in the transportation of the emergency cases to hospitals

* Directors office	30 m.sq.	1	-
* # division director's Office 2 x 16 m.sq.	36 m.sq.	2	-
Employees offices + lounge	80 m.sq.	-	-
* dining + kitchenette	36 m.sq.	-	-
* Lockers +changing room	20 m.sq.	-	-
* dormitory	40 m.sq.	8	-
* Storage	70 m.sq.	1	-
* Toilets	12 m.sq.	-	-
* Garages	-	-	-
	100 m.sq.	-	-
Total Area + 25% circulation	505 m.sq.	-	-

Office of general
Security Role : - Passports
- Residents permits
- Investigations

	Net m.sq.	Staff	occupancy
* Waiting+ employees	120 m.sq.	12	25
* Offices for different divisions			
directors: 16 x 3	48 m.sq.	3	*
* Directors office	30 m.sq.	1	-
* records room	25 m.sq.	1	-
* Kitchenette	6 m.sq.	-	-
* Toilets	12 m.sq.	-	-
* Janitor	9 m.sq.	-	-
Total area: + 25% circulation	313 m.sq.	17	-

Personal affairs role: - Official ID
- Birth identification
- Residency certification

Personal affair office	Net m.sq.	Staff	Occupants
* Waiting + employee	100 m.sq.	7	25
* Chairman's office	30 m.sq.	1	-
* Division director's Office: 16 x 2	36 m.sq.	2	-
* Records room	30 m.sq.	1	-
* Kitchenette	6 m.sq.	-	-
* Toilets	12 m.sq.	-	-
* Janitors	9 m.sq.	1	-
Total area: +25% circulation	280 m.sq.	12	-

EDL Office Role: - To control electricity distribution

- To collect fees
- To provide the connections to the main network
- For the maintenance of the network against small to medium damages

EDL Office	Net m.sq.	Staff	Occup
* Waiting + employees	80 m.sq.	10	20
* Directors office	30 m.sq.	1	-
* Secretary + Recep	20 m.sq.	1	6
* Office of # division's Directors 2 x 16	36 m.sq.	2	-
* records room	25 m.sq.	1	-
* Toilets	12 m.sq.	-	-
* Janitors room	9 m.sq.	2	-
* Kitchenette	6 m.sq.	-	-
Total area. + 25% circulation	248	17	-

Water Resources Department Role:

- To control water distribution
- To collect fees
- To provide the connections
- To maintain the network

Water resources office	Net m.sq.	Staff	Occupant
* waiting + employees	80 m.sq.	10	20
* Director's office	30 m.sq.	1	-
* Secretary + recep.	20 m.sq.	1	6
* Office of # division's Directors 2 x 16	36 m.sq.	2	-
* Records room	25 m.sq.	1	-
* Toilets	12 m.sq.	-	-
* Janitor's room	6 m.sq.	-	-
Total Area: + 25% circulation	248 m.sq.	17	-

POST OFFICE ROLE: - Posted services

Post office	Net m.sq.	Staff	Occupancy
* Box office	80 m.sq.	3	25
* Telex office+w	40 m.sq.	2	6
* Director's office	30 m.sq.	1	6
* Lobby	30 m.sq.	-	25
* Storage	30 m.sq.	-	-
* Employees lounge	30 m.sq.	6	-
* Toilets	12 m.sq.	-	-
* Kitchenette + Janitors	15 m.sq.	-	-
Total area + 25%	334 m.sq.	12	-

TELEPHONE OFFICE ROLE: - To accommodate for 20 to 30,000 telephone lines
- To collect fees
- To provide connections to the network
- Maintenance to the network
- To accommodate for external calls addressed for public

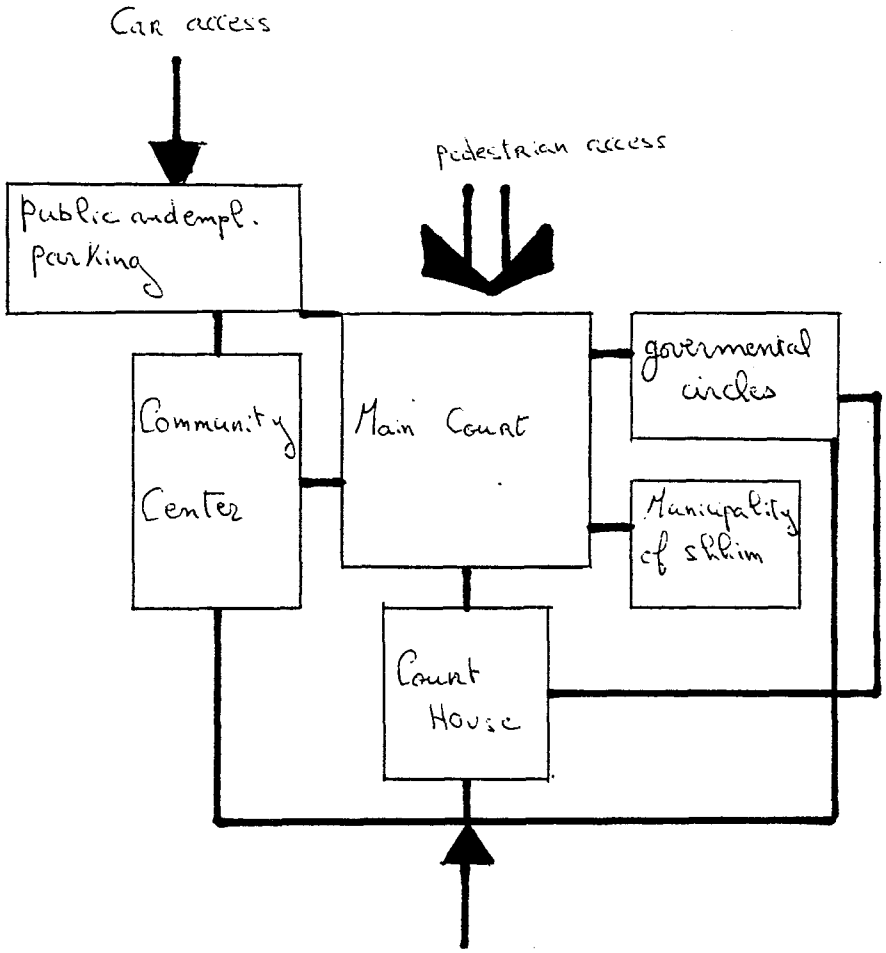
Telephone office	Net m.sq.	Staff	Occupants
* Waiting+hold of+employee	80 m.sq.	8	25 m.sq.
* Director's office	30 m.sq.	1	-
* External calls office	40 m.sq.	2	6
* Telephone cable room	60 m.sq.	2	-
* Record's room	20 m.sq.	1	-
* Toilets	12 m.sq.	-	-
* Janitor's	9 m.sq.	-	-
* Kitchenette	6 m.7	-	-
Total Area =	322 m.sq.	14 m.sq.	-

Ware houses	Net m.sq.	Staff	Occupants
Director's office	30 m.sq.	1	-
Employees lounge	36 m.sq.	6	-
EDL storage	60 m.sq.	-	-
Water resources storage	60 m.sq.	-	-
Telephone office storage	60 m.sq.	-	-
Civil defense storage	100 m.sq.	-	-
Public Relation storage	60 m.sq.	-	-
Total area + 25% circulation	595 m.sq.	7	-

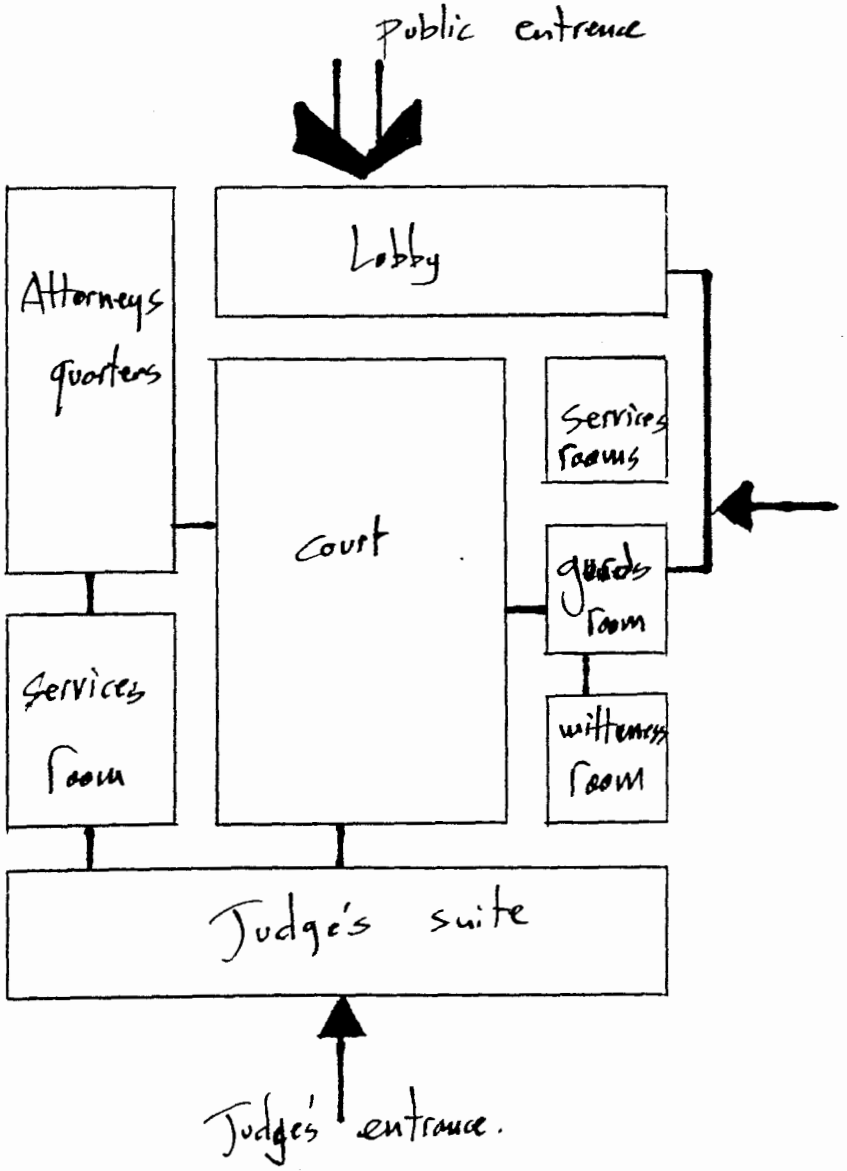
Services	Net m.sq.	Staff	occup.
Employee lounge	30 m.sq.	3	-
* Electricity room	132 m.sq.	-	-
* Heating & cooling room	60 m.sq.	-	-
Total area + 25% circulation	275 m.sq.	3	-

Parking	Net m.sq.	staff	Occupy
Supervision room	9 m.sq.	1	-
* employees parkings 40 cars	1000 m.sq.	-	-
* visitors parking * 100 cars	3000 m.sq.		
Total Area	4009 m.sq.	1	-
Total built up area	11209 m.sq.	-	-

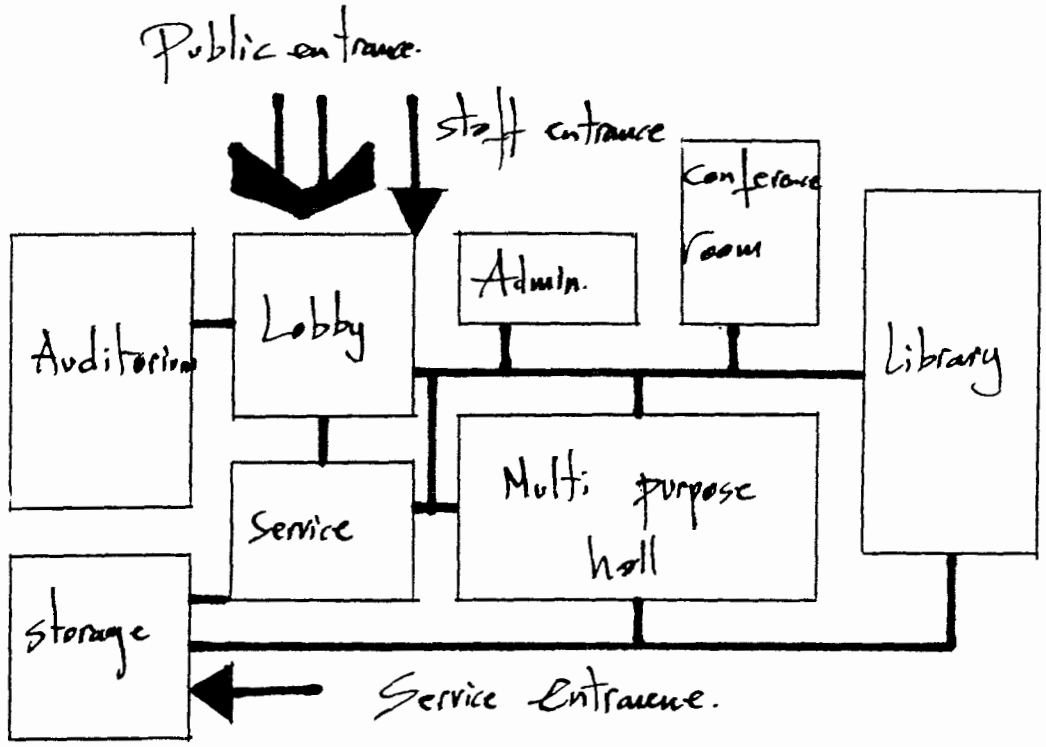
GENERAL DIAGRAM



Court House.

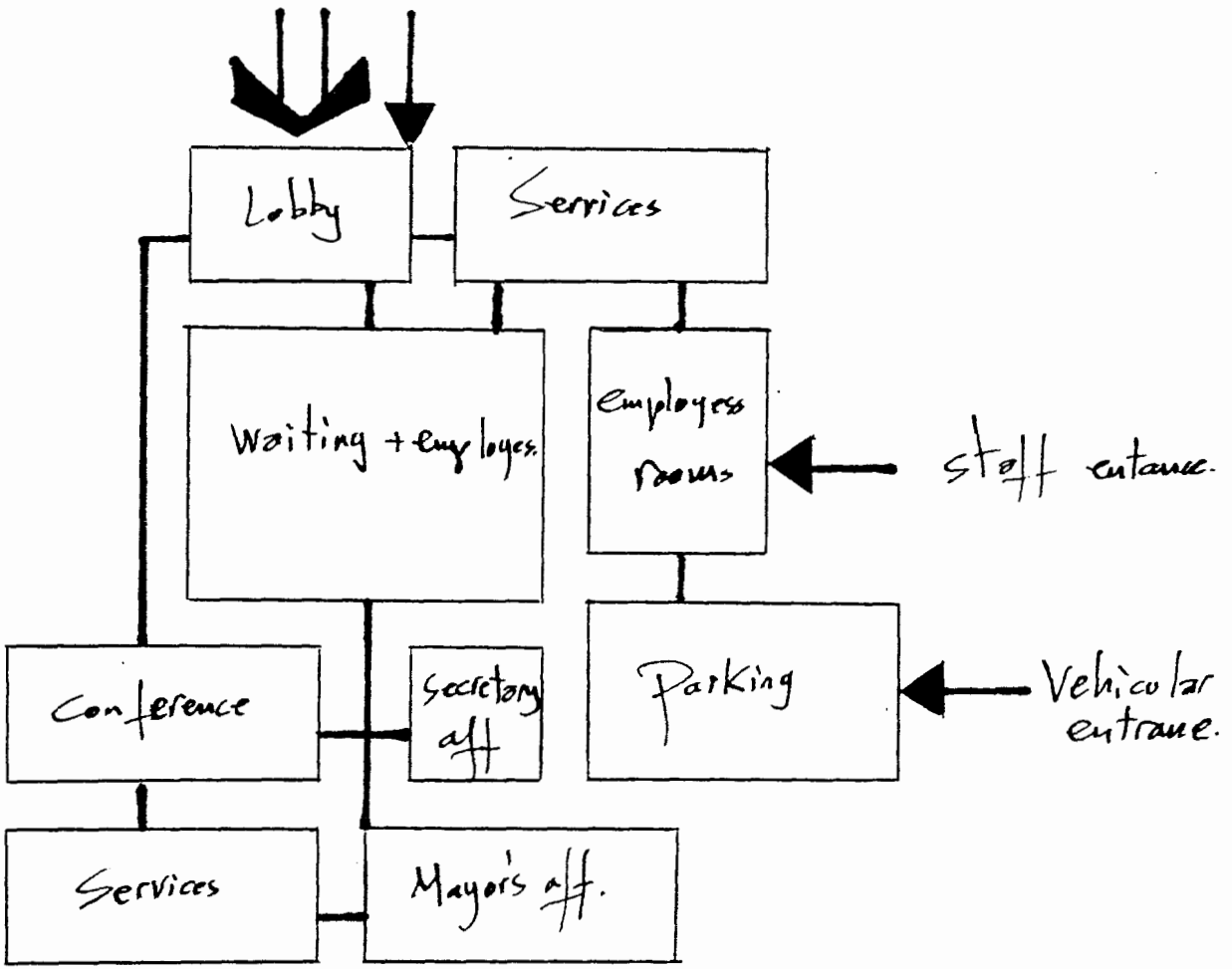

public entrance
Lobby
Attorneys quarters
Services rooms
court
guards room
Services room
witness room
Judge's suite
Judge's entrance.

Comunity Center.

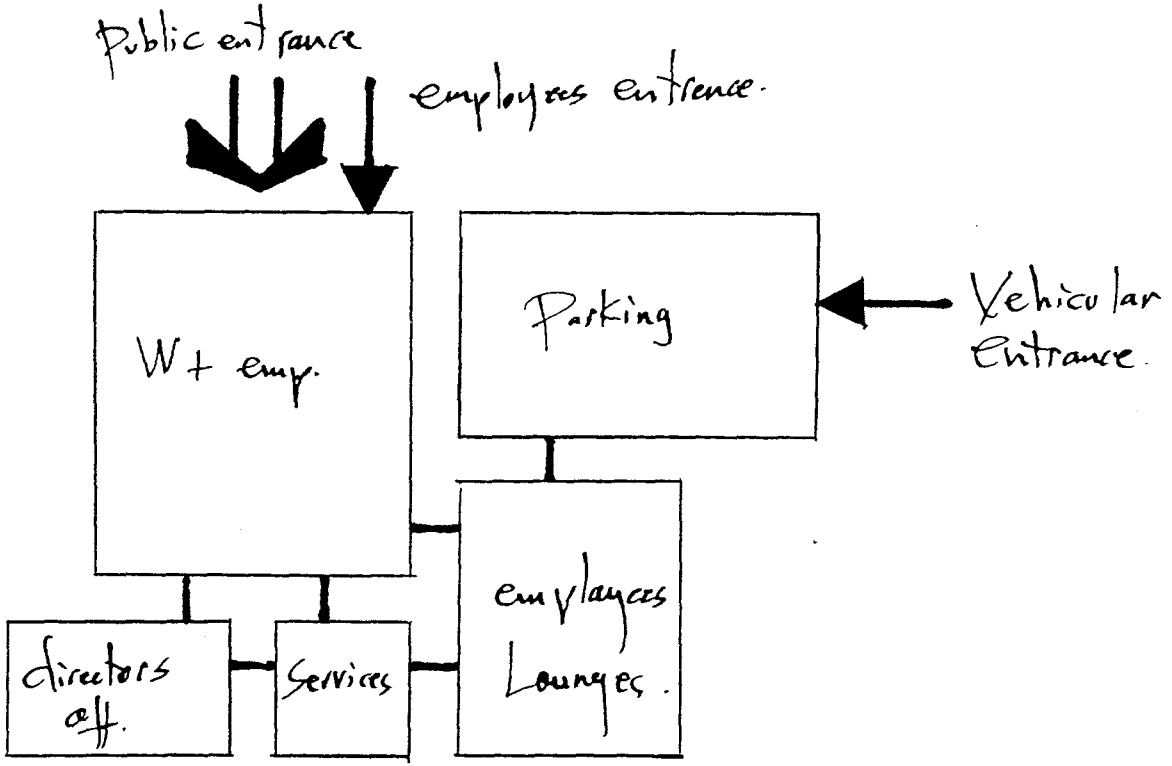


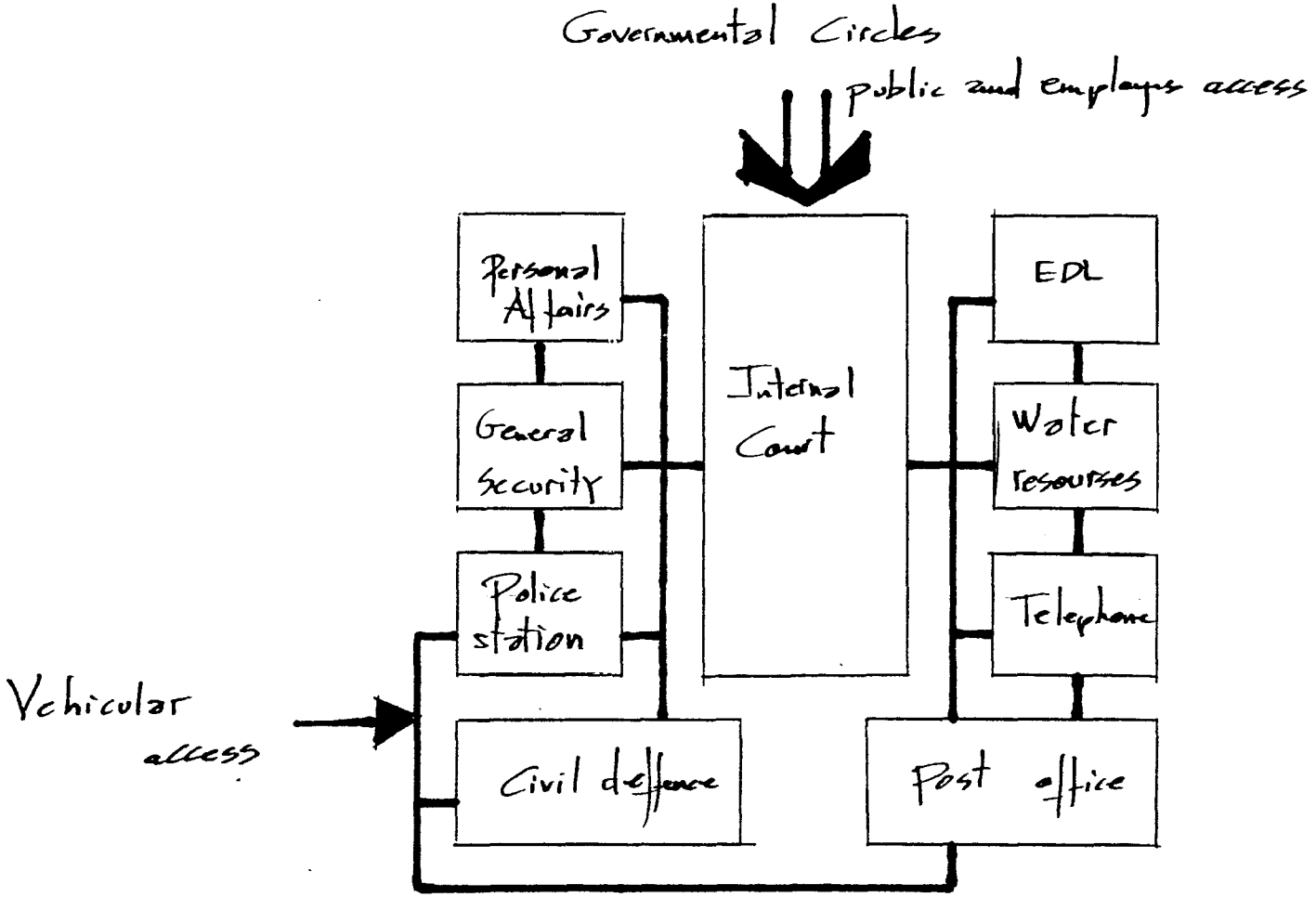
Shhim Municipality

Public entrance.

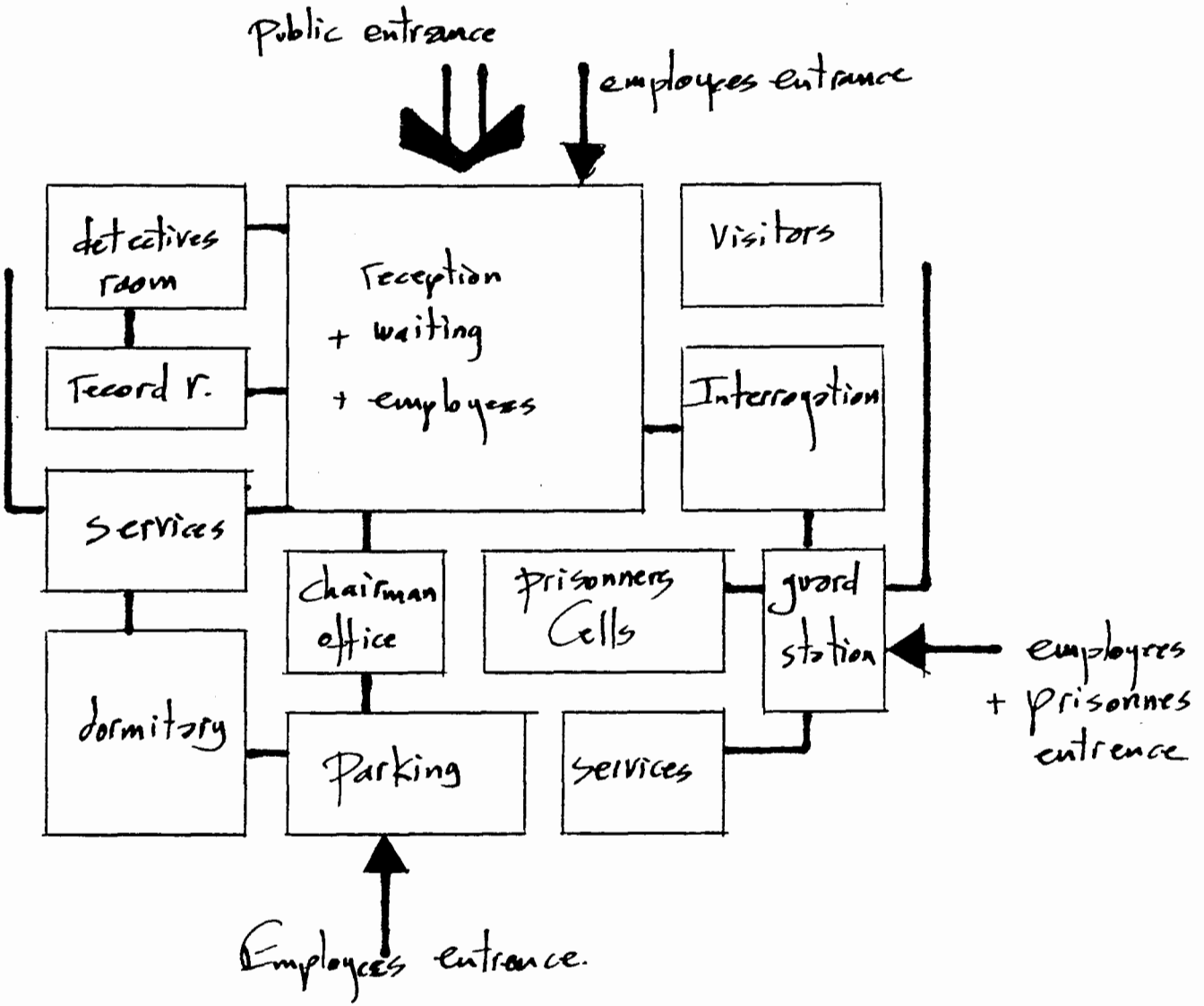


Municipality Police

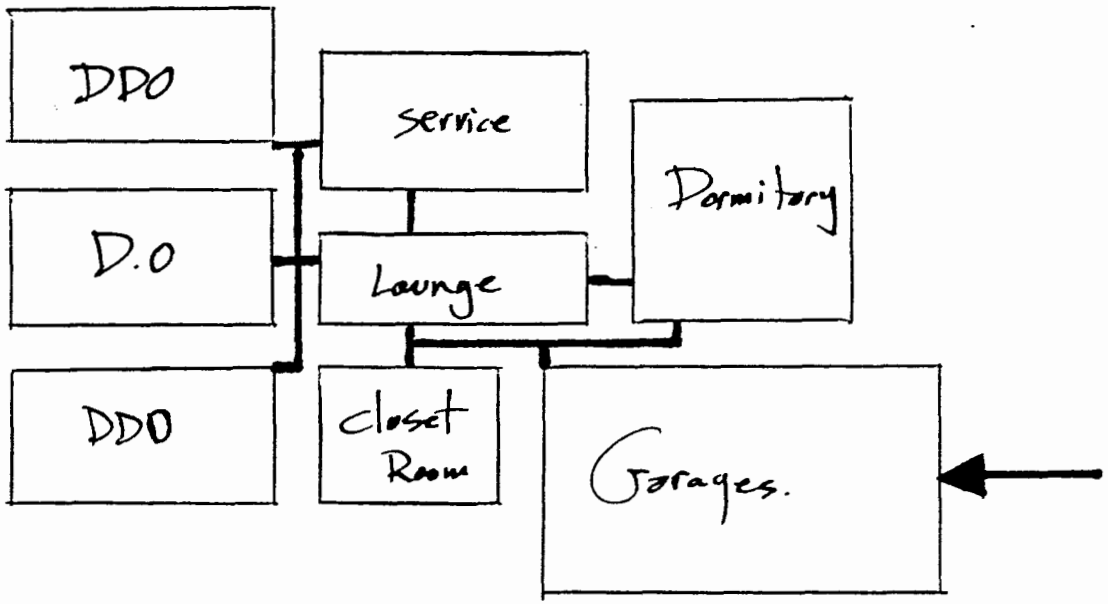


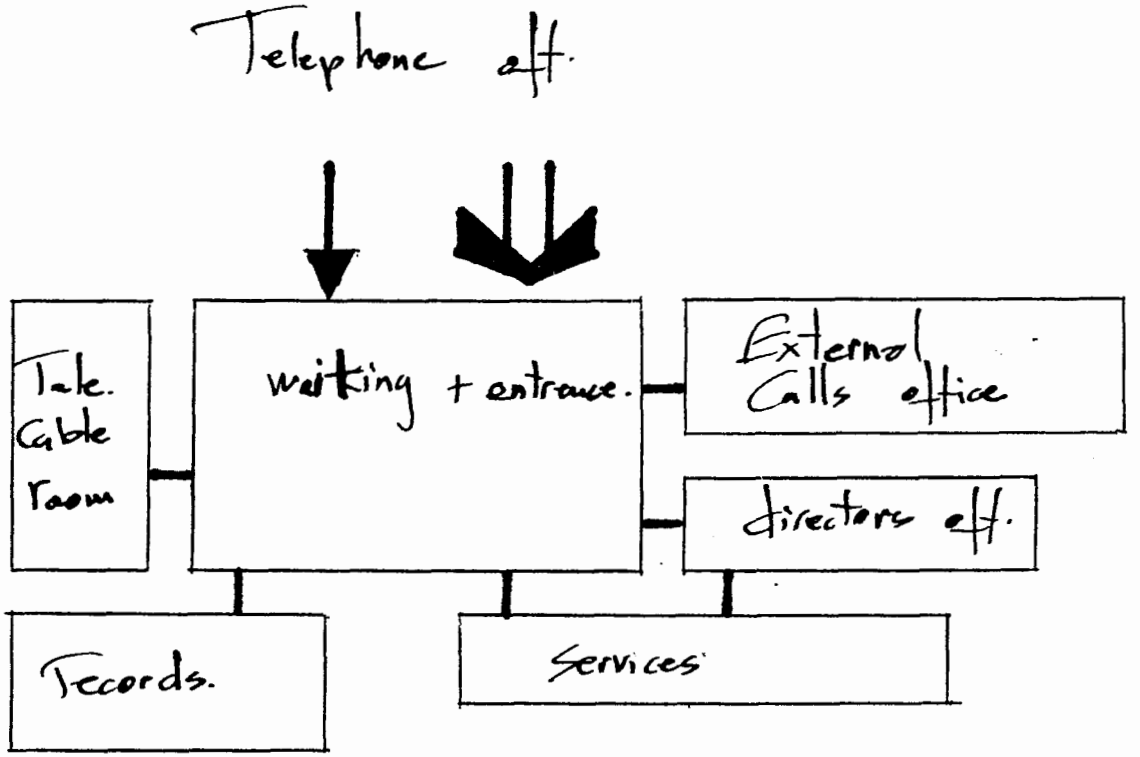

Governmental Circles
public and employes access
Personal Affairs
General Security
Police station
Civil defence
Internal Court
EDL
Water resourses
Telephone
Post office
Vehicular access

Police . Station + Jail

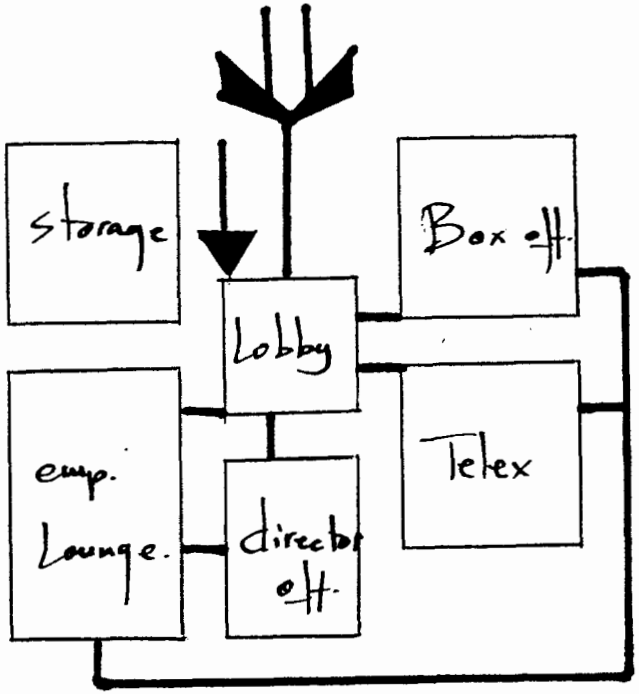


Civil defence quarter.

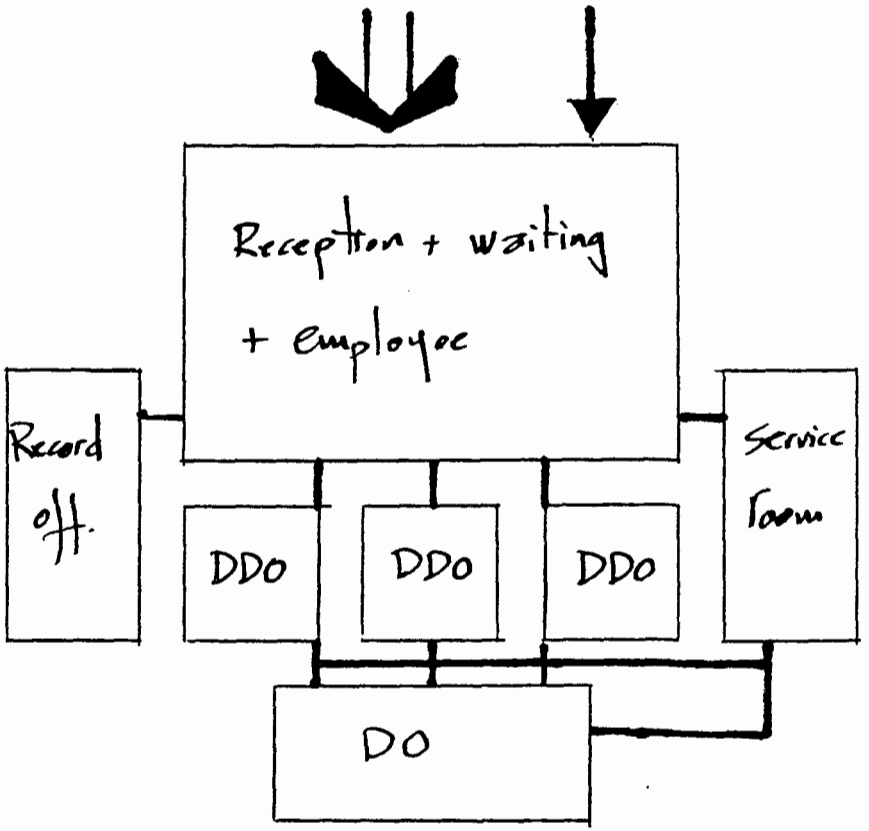



Telephone eff.
Tele. Cable room
waiting + entrance.
External Calls office
directors eff.
Records.
Services

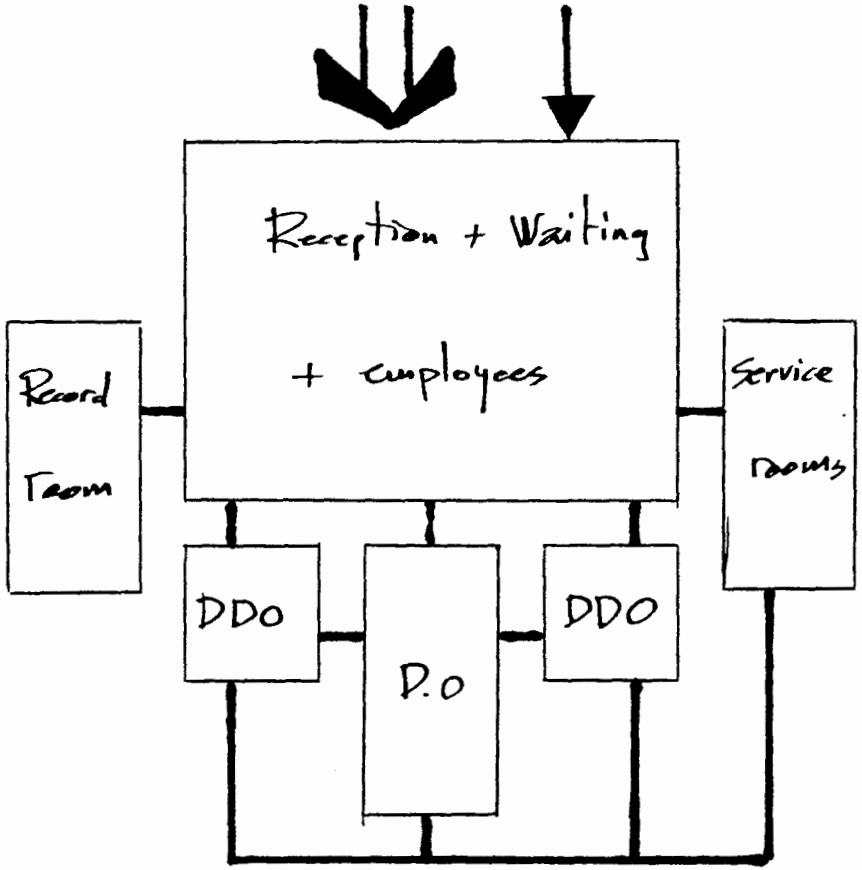
Post office.

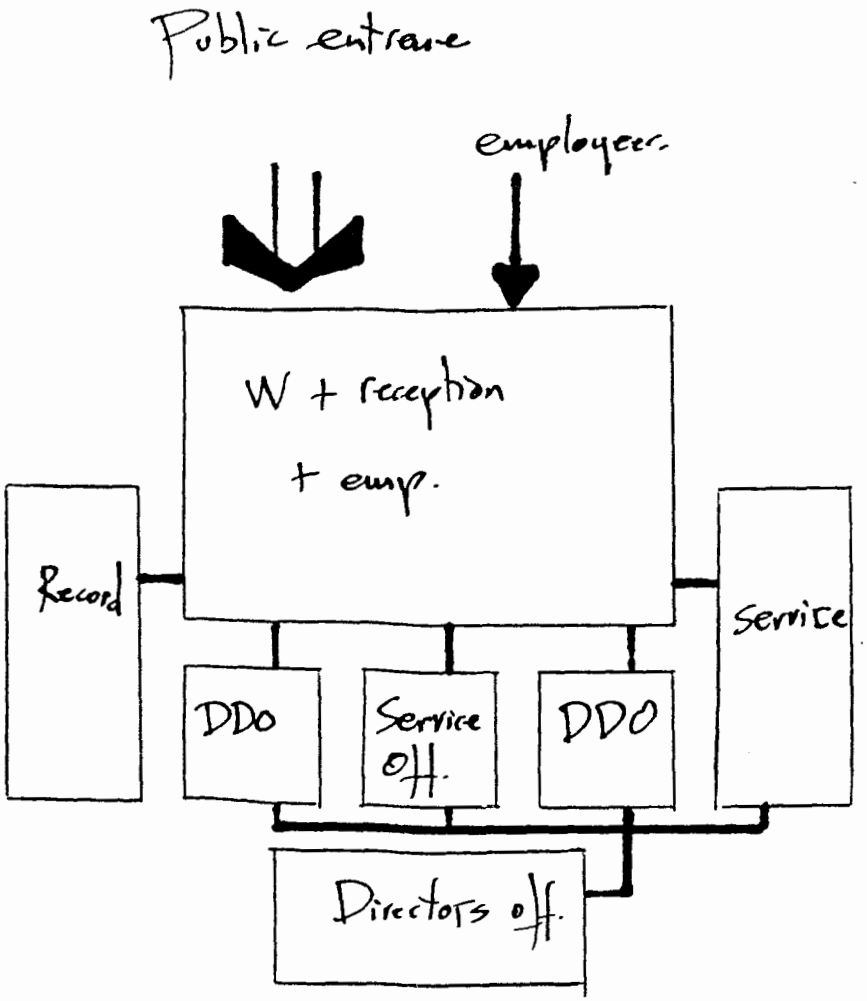


General security office



Personal Affairs office




Public entrance
employees
W + reception
+ emp.
Record
Service
DDO
Service off.
DDO
Directors off.

SPACE ANALYSIS

As the program shows, there are many departments that are similar in the way they function.

It is essential to understand the relationships existing within a department or a service. Every Department Head (or service Head) is in direct relationship with the Headquarters Chief (or with the Central Services Head).

Some Departments, like the Information and Operation Department, need a greater accessibility to the headquarters Chief than other departments.

Within every department (or service), the Department head is in direct contact with his division (or section) chiefs. The division head is in continuous relation with the assistants of the division. These need to be in direct relationship with the employees that assume all functions.

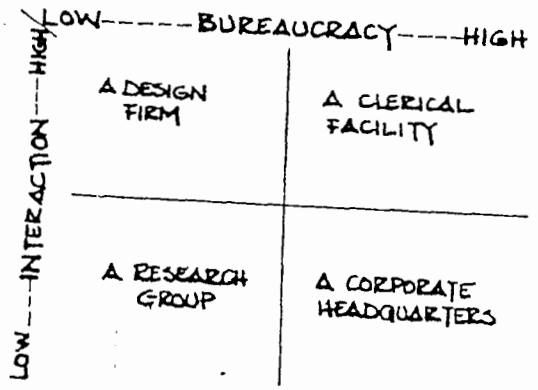
The employees of one department could either be grouped r be segregated according to their specialized divisions. What is essential is not to separate the components of one department or one service. Each is indispensable to his superior and subordinate.

It is Known that OPEN AND CONVENTIONAL PLANNING, as well as the combination of the two approaches, are appropriate to different types of organizations.

An organization can, through a kind of self analysis, determine what approach is more appropriate to it and proceed accordingly without going through the complex tests and debates over the merits of different planning philosophies. Every office organization can be analyzed in terms of two qualities: BUREAUCRACY and INTERACTION.

The level of BUREAUCRACY, rated on a scale from low to high, describes the extent to which the organization is AUTHORITARIAN, HIERARCHICAL, CHANNELED AND RIGIDLY ORGANIZED. The MILITARY and old line GOVERNMENTAL departments are typically HIGHLY BUREAUCRATIC, while nearly formed experimental groups, for example, are likely to be nonbureaucratic and "loose" in structure.

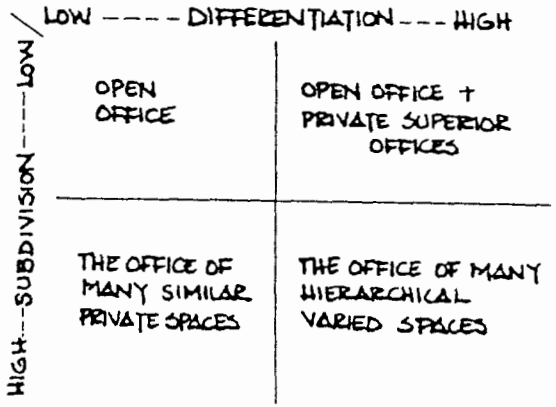
. Interaction, which has to do with the extent to which the members of an organization work together. Where group or team work is common and necessary, the "interaction index" is high; where people work independently, it is low.



If we diagram the possible interrelationships of these two ranges of variables, we get a matrix diagram as follows:

The matrix generates four possible organizational types the four boxes. In practice, since each range of variation is continuum, the variety of types is infinite, but the four boxes are convenient for discussion of the concept.

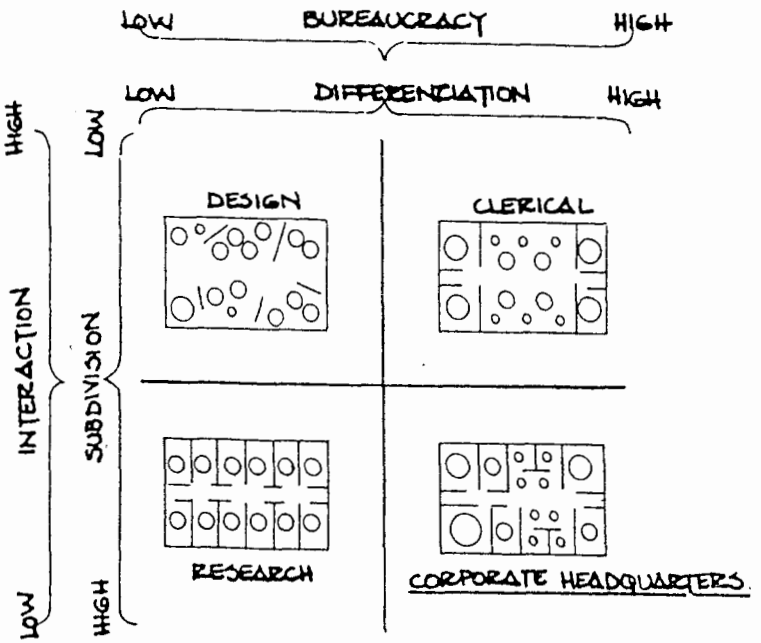
The applicable examples that Duffy suggests to our type of structure are:



High_level Bureaucracy } A Clerical Facility, within one department or service.
High-level interaction }

High-Level Bureaucracy }
Low-Level Interaction } A corporation HEADQUARTERS, at the higher level of Departments and services.

This leads to a second matrix chart similar to the first but diagraming the characteristics of the built office space:



We now have a more reasonable atmosphere in which the two kinds of planning, open and conventional, are seen as alternatives having somewhat different merits and purposes. A the light of this study, let us examine both approaches and decide on the more adequate:

. OPEN OR "LANDSCAPE" PLAN:

1- PLANNING based on a serious study of actual patterns of communication and work flow rather than on the formal patterns illustrated in conventional hierarchy organization chart.

2- The abandonment of fixed of semi-fixed partitioning of office space into rooms. This makes possible a new degree of flexibility so that layout can be changed quickly and inexpensively to accommodate to organizational change.

3- The elimination of partitioning, acoustic problems require special attention.

4- The elimination of partitioning, acoustic problems require special attention.

5- Insistence that open planning be applied to all of an organization, including its top executive levels.

6- Minimization of storage at workplace and elimination of filing distributed through the office in favor of a highly developed, central filing system.

7- Provision of employee lounge spaces firefly available to staff for rest and coffee breaks.

Before landscape planning came along, conventional planning had come to be so well established that it hardly needed description. Now that it is being challenged, it is necessary to review what the more traditional approach really is.

* CONVENTIONAL PLANNING:

1- The functional needs of the client that have called the project into being, are listed.

2- These needs are related to space requirements in a specific way. This leads to a listing of so called spaces or rooms that are required with the approximate square-meters areas that each will require.

3- The INTERRELATIONSHIP of these areas is studied to determine which things need to be near each other, and which can be far apart.

4- Other requirements, for the EXPRESSION of HIERARCHICAL STATUS, special desires for SUPERIOR AESTHETICAL VALUES, etc... are noted and allowed for. Top people get corner windows; board rooms get carpet and oil paintings...

5- CIRCULATION PATTERNS are studied to attempt simple, direct, and linear routes of movement.

6- Planning is continued according to current architectural esthetic preferences for ORDERLY, ORTHOGONAL GEOMETRIC RELATIONSHIPS, with possibly occasional variations in limited introduction of curved forms or diagonal patterns.

The goal is a plan that will look clear, organized, and that will lead to qualities of clarity in hierarchical and organization of the built space.

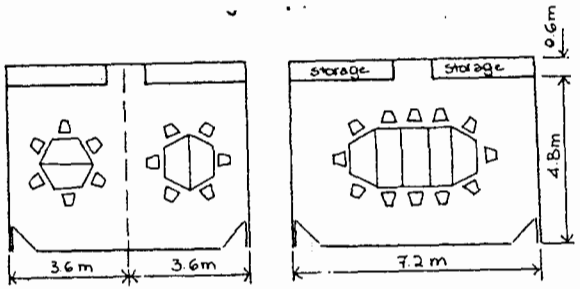
Many common aspects and needs are encountered in every department and service. An early definition of these typical spaces is going to prevent us from repetition.

RECEPTION: A reception area is provided in every department and service. An employee is appointed to deal with the coming people, announce them, conduct them, answer personal enquiries, receive post and certain types of deliveries.

Visitors, will have to stop at the reception .

This 20 m.sq. reception area is to accommodate 8 seated persons - It will be necessary to provide for storage of visitors' coats and hand luggage.

CONFERENCE AND MEETING ROOM: A conference room of 30 m.sq. is to accommodate 8 to 12 persons. In every Department and service, it should be centrally located to be easily accessible by the department or service head. This room should be equipped with black boards and panel boards. A 60 cms depth chair storage should be accommodated to serve extra people meeting - A flexible layout of furniture can subdivide a meeting room into two meeting spaces.



Entrances:

Entrances are subdivided mainly into three categories:

A- Public entrance: it is in a direct contact with the outside and overlooking a plaza or a main street to clarify the entrance, and it should be distinguished to accentuate the entrance to the building. This entrance should be large enough to absorb the huge amount of people coming in and out, and circulating within.

B- The employees entrance could be combined with the public entrance and it should lead to work areas.

C- Service entrance: to provide the building needs.

Internal Corridors:

The width is calculated according to the needed flow in the neighboring rooms taking into consideration the width needed for circulation, the possibility of having any lockers or pieces of arts and providing enough area in front of stairs and elevators (if there is any) to avoid any accidents.

Vertical Circulation:

Which are in this case stairs. The main stair should be easily accessible from the public entrance. These stairs should covered by a sound insulation and the handrails should bring comfort. Stairs are the mostly used taking into consideration the limited number of floors. In any governmental building, it happens to have an administrative relationship between two different department which could be located in different stores, in this case, the existence of a stair case linking those departments is strictly recommended.

WCs :

The WCs should be located as to be easily accessed by the employees and at the same near the waiting rooms. The WC is composed of three important elements :

1- Toilet cell: the width of the cell around 90 cm (according to human standard scale) and it should be naturally ventilated by external openings or internal shafts.

2- Uriners: should be properly located and always maintained. They are protruding from the wall or flashed with it. But in any case we should have partitions in between.

3- Lavatory: They could be continuous or separated, but should next to the door with the need of mirrors in top of them.

SERVICE ROOMS:

These should exist almost in all floors and they are used to serve other rooms, these service rooms are subdivided into three parts:

a) Janitor's rooms are a kind of storage rooms for cleaning tools.

b) Kitchenettes , and office boys are necessarily needed especially next to directors, chairmen, and secretaries to serve those and their important visitors.

c) Garbage disposal rooms: should be constantly and firmly closed.

In general, service rooms occupy architecturally dead areas.

COLORS:

Color has a great importance in affecting the human psychology and therefore, his work and production. For example, the green and blue colors are cold colors, and the red and yellow are warm colors. For working spaces, it is advisable to have white ceilings. On the other hand, the upper part of walls should be treated with light colors like white, clean, green or blue. While the lower part should be treated with dark colors.

SOUND INSULATORS:

It is also important in decreasing the noise resulting from the sound of typewriters, telephones, pedestrians, ect...

These insulation should be installed in walls and partitions in the ceiling and in the ground by using moquets (not advisable in the areas or rooms addressed for public.)

LIGHT:

It is known that good lighting makes the user of any place more comfortable which according to statistics raises the production for 30%. Good lighting requires:

1- Equally distributed light all over the room taking into consideration, not having glare.

2- Not having a color lighting.

The quality of light is divided into two main categories:

a) Natural lighting: it is advisable to put the desks perpendicular to windows which are advisable also to be directed to the north or northwest to avoid dense light and shadows. It is advisable also to have sun breakers on the windows to have better light distribution, in any standard office space, the natural light reaches around 3.5 m, the next 3 m need artificial lighting to help , the rest depends completely on artificial lighting.

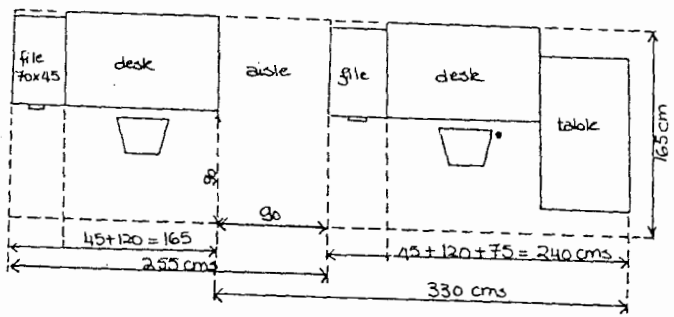
b) Artificial lighting: the artificial lighting depends on the natural lighting especially when we have bad weather, and we need a helping artificial lighting which should be treated as mentioned above.

c) Corridors lighting: for corridors which could be not lit naturally, it is advisable to use squarish or rectangular light blocks constituting of fluorescent light and with light breakers. One of the advantages of this method is that it subdivides the corridors and diminishes its visual length.

ARCHIVES: Whichever type of user is involved, he will usually be possible to distinguish what has to be stored, where it should be stored, how much speed and frequency of access required.

In every Department and service, a 30 m.sq. archive area is to be either distributed in the clerk offices or in a separate room, depending on their needs.

Storage and handling techniques for work in progress in the form of paper and files are part of the study of furniture. In some cases, it will be preferable to decentralize document storage for security and to relate it to the user group. For files, personal lockable drawers and cabinets can be used at best for frequent and weekly use.



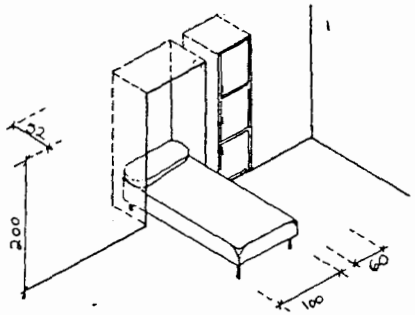
desk + file

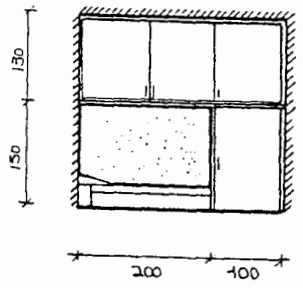
desk + file + table

Within the employees office spaces will be included cabinets for filing and other office storage equipment.

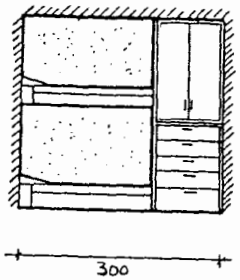
SLEEPING FACILITIES:

sleeping facilities: Every needs a sleeping facility. The idea of an anteroom adjacent to the office space is completely recommended, because extra telephone line extensions, writing space , and file cabinets would be needed next to the bed for late calls and late reporting at night.

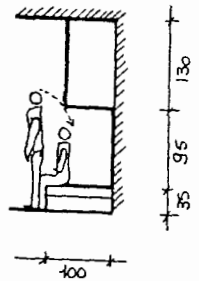




elevation showing economical use of space



elevation of double bunk - bed recess and built in cupboard



section

MODULATION OF TYPICAL OFFICE SPACES:

* THE TYPIST MODULE : 1

By taking the smallest element of the hierarchy, we can devise a module for all the offices.

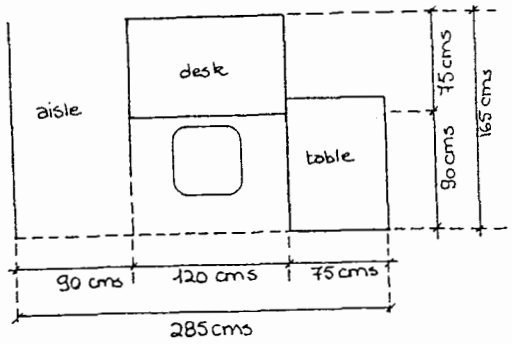
Furniture arrangement.

285 cms x 165 cms = 4.7 m.sq.

+10% of wall area = 5.17 m.sq.

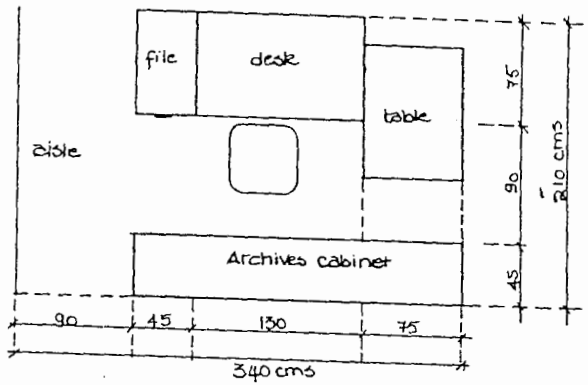
Let us then consider 567 m.sq.

being the module of office spaces.



THE CLERK MODULE

The clerk needs personal lockable drawers and cabinets to store files of frequent use, and weekly use.



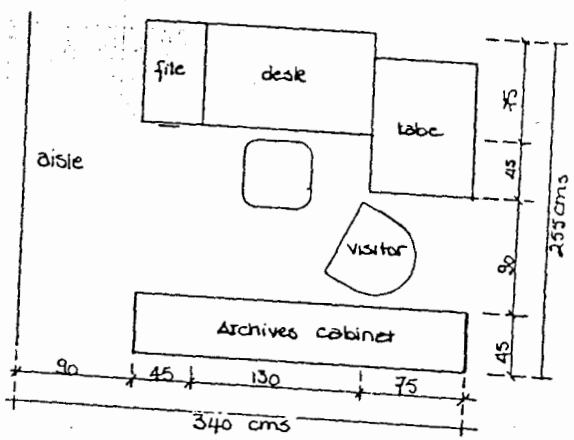
340 cms x 210 cms = 7.14 m.sq.

+10% of wall area = 7.85 m.sq.

7.85 m.sq. is 1.5 the typist module

Director assistant

The director assistant doesn't need more furniture than a clerk, he only needs to accommodate one visitor in his office space.



340 cms x 255 cms = 8.67 m.sq.

+10% of wall area = 9.54 m.sq. since the head of clerks is most of the time alone in the room, give him twice the typist module: 10.34 m.sq. = 2 x module

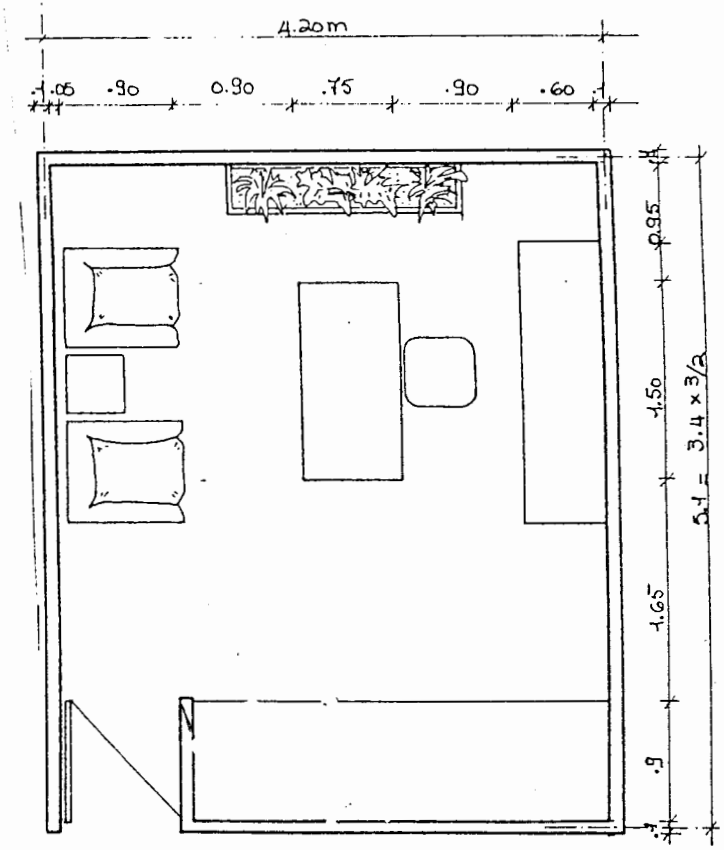
* DIVISION HEAD

SECTION HEAD

needs a more spacious office – same fixed dimension – the other dimension is a multiple of 3.40.

5.1 = 3.40 x 3/2

= 4 x module = 20.7 m.sq.



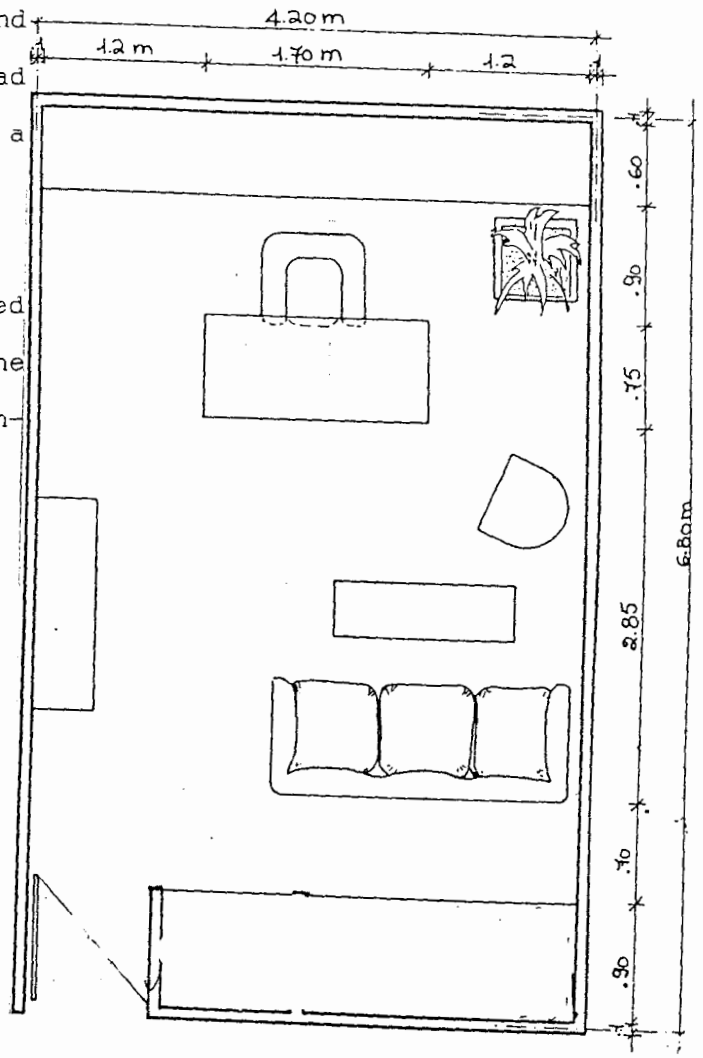
DEPARTMENT OR SERVICE HEAD:

His office will have to express his higher rank in size and importance of space and furniture. The Department or service head needs to accommodate more visitors in his office because deals a lot with outsiders.

It is important to notice that the door could be positioned either ways (as is shown , or perpendicular). This gives the option of locating the corridor either ways, same with the windows of office.

4.2 x 6.8 = 28.5 m.sq.

= 6 x module = 31 m.sq.



COURT HOUSE ANALYSIS

The Courtroom

Location : The court's activities revolve around the courtroom, so it should be centrally located. Spaces for the officers of the court should be placed with regard to their functions in the courtrooms and their responsibilities to the judge. (figs. 1 to 3).

Illumination: Natural lighting may be restricted to auxiliary offices, the courtroom itself having no outside exposure.

Dimensions: The minimum size of a district courtroom is width by in length. The ceiling height of a courtroom should be proportionate to its size and to the requirements of proper illumination, ventilation or air conditioning, and acoustics. In a large installation with many courtrooms.

Courtroom Entrances

Public Entrance. This is located at the end of the courtroom opposite the judge's bench and fitted with double doors swinging out into a courtroom lobby.

Jury Entrance. This entrance should permit the jury to pass directly from the courtroom to the jury rooms, preferably without

crossing the courtroom or passing through any public corridor or space. If the prisoners cannot use the juror's entrance door, provide a special entrance through which they may be taken to the detention cells.

Side Entrance. Provide an entrance, for attorney in front of the railing and benches for the public.

Coat Closets for the use of attorneys, provide one or more coat closets off the judicial end of the courtroom to accommodate not less than 20 coats. For the jurors selected, provide a coat closet or alcove either immediately off the courtroom or off a secondary lobby which is not accessible to the public.

Judge's Suite

Components Judge's entire suite includes the following rooms:

Judge's office

Judge's Library

Judge's toilet

Judge's coat closet

Secretary and reception room

Witnesses' Room This is for the use of witnesses until called by the bailiff to testify in the grand jury rooms. The witnesses' room shall have a minimum area of 40 m.sq.

POLICE STATION ANALYSIS

General design information

Horizontal Plan

A building with the least number of floors is more economical to supervise because less personnel is required to supervise it./ While a building of several floors may cost less in construction and be a saving in site costs, the extra outlay for administrative personnel, year after year, will never cease; in time it may before greater than the additional cost of the desirable horizontal plan.

. Facilities

. Windows. Windows adjacent to jail quarters should have steel bars or steel detention sash with screening devices and beinaccessible to prisoners. All parts of detention quarters should be separated from exterior walls by a mesh partition, parallel to outside walls and 3 ft inside them, to prevent passing of contraband, exhibitionism, and to give passage for supervising personnel.

. Storage: A safe storage place should be provided for cash and valuable articles.

. Firearms Firearms, weapons, and medicines should be stored in strong, securely locked cabinets inaccessible to prisoners; i.e. they should be kept in locations removed from jail quarters and corridors.

. Telephone , Radio The telephone and radio service should include equipment for fire calls and auxiliary fire alarm as well as provision for right-of-way calls, conference calls, watch calls from stations of duty, and supervisory calls.

. Detective Division : The location of a detective division will depend upon the workload involved and the number of detective employed. There should be a main detective office large enough to permit all detective to get together for briefing and instructions. In addition, there should be small rooms located adjacent to the main detective office, which can be used for interrogation purposes. These need not be elaborated and require only a desk and two or three chairs.

. Visitors' Room: A visiting room should be provided so as to promote informal interviews under adequate supervision. This visitors' room can serve for visitors for the prisoners or as a conference room between an attorneys' entrance is from the public side. A separation between prisoners and visitors inside the room should be provided by at least a fine meshed double screening or heavy plate glass windows. Another type of separation is the use of a table at least 1 m wide with a partition extending to the floor and the partition above the table running to the ceiling so that it is impossible to pass even the smallest item of contraband.

. Interview Room. A separate interviewing room should be provided for the use of attorneys, probation officers, and social welfare workers.

. Kitchen. When the jail averages more than 15 prisoners a day, a probably equipped kitchen has been found advisable. There should be a refrigerator room and locked storage closet. The kitchen should be equipped with a stove for top and oven cooking. In cases where the food is brought from the outside and not cooked on the premises, the kitchen or pantry should at least have modern sterilizing dishwashing equipment.

. Laundry A laundry should be included in dishwashing equipment and a sterilizer for clothing and bedding.

. Janitor'slop sink A janitor's slop sink should be placed in an open space large enough so that mops and cleaning gear can be hang on racks exposed to sun and air. This janitor's room should be well ventilated and inaccessible to prisoners.

. Segregation. Male and Female prisoners must be kept entirely separate. Other segregations are necessary, such as separations of juveniles, sentenced from unsentenced prisoners, those with crime records and disciplinary cases separated from drunkards, vagrants, traffic violators, and witnesses. Prisoners of unsound mind, contagious disease carries, and known sex perverts must be isolated. Plans should provide close and readily maintained supervision of the jail sections housing drunks, the insane, or the mentally disturbed.

. Cells The cells should be arranged so that maximum security is provided for prisoners serving time, and these cells must be separated from those housing material witnesses. The maximum number of individual cells makes possible segregation of prisoners.

. . Cell Furniture. Cells should be equipped with toilets, washbowls, a locker or cabinet (preferable an under-bed type), a table, and a chair or stool. The cell beds should be metal, equipped with a clean mattress, clean sheets, mattress cover, blankets, pillow, and pillowcase. The bed should have a rigid bedspring frame bracketed to the wall. The washbowl and toilet should be prison type.

. Lighting. It is desirable, where possible, that the prisoners' living quarters be accessible to the entrance of sunlight, and the walls should be painted in light colors. Where light is dependent upon electrical fixtures, the fixtures should be the built-in, tamper proof type with tempered plate glass front for protection of the lap.

.. Receiving Garage. A receiving garage should be built immediately adjacent to the building or made a part of it, so that cars could drive in off the street or alley directly into the garage. This garage should not be used for parking purposes but merely for the discharge of prisoners when they are brought to the police station. The jail elevator should be in such a position as to be easily available directly from this garage.

B. Room Spaces

CEntral Offices. All the necessary offices for administrative functions are provided. Offices for chief and assistant officers are accessible to the jail or to the public. The public, however, is separated from prisoner areas. The main office oversees the whole first floor with a minimum of personnel on duty at any one time.

Men's Jail For the men's jail there is one eight-bed group cell which can be used for trusties. Two isolation cells, one padded cell, and one sixteen-bed and one eight-bed group cell with day rooms. A maximum number of 18 men can be housed.

Parking: Off-street parking area for police vehicles adjacent to the police building: 6 cars. Area required for parking cars of persons who visit police headquarters; 3 to 6 cars. Total, 9 to 12 cars (min.)

Estimate of Space and Facilities, Requirements for.

. . General Police Administration Operations:

A. Executive's Requirements (Room or space size in:

1. Chief's office: 30 m.sq.

2. Private entrance: 6

3. Conference room:

4. Chief's office toilet

5. Chief's office clothes closet:4

6. Assistant chief's office:

7. Chief's secretary's office: bind with main record room.

8.Other: waiting room or public lobby:

B. Records and clerical:

1. Central records maintenance, in main office,

2. Map room and library (accidents and crime data): Combined with officers' briefing room.

3. Old records storage:

4. Men staff toilets and lockers:

C. Communications: Combined with general office.

. Identification:

1. Photographing and fingerprinting rooms: Combined with record room.

2. Photographic dark room:

3. Identification records: combined with main office.

4. Storage combined with hall lockers.

. Prisoners and Jail Facilities:

. Receiving, Processing, and Confinement:

1. Drive-in, escape proof garage:

2. Booking and searching rooms

AUDITORIUM ANALYSIS

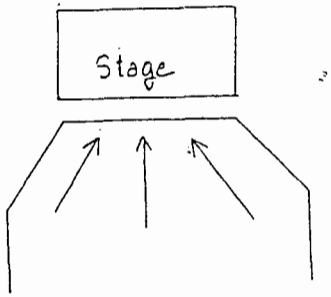
The auditorium is important both for cultural and entertainment activities. Its use as lectures, concerts, plays, educational movies, entertainment movies,... In case of plays or concerts, this facility will be visiting professional groups.

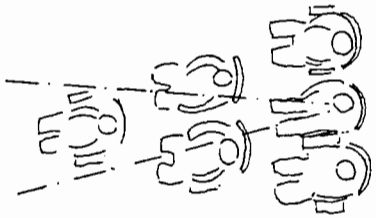
Capacity:

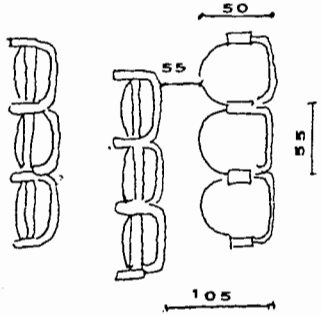
Not having any entertainment projection facilities in the region, this auditorium should cater for a seating capacity not less than 350 seats.

- Auditorium Type

The proscenium auditorium type where spectators look in one direction towards the stage, is no doubt the best for performance, concerts, lecture, and film projections. Such arrangement produced more or less a uniform effect, providing maximum comfort for both performers and audience .







Seating Arrangement

A fan shaped auditorium has the advantage of providing additional seating space, not at the expense of good vision if well studies.

To relate visually more to the performance, it is better to curve the seating rows. However, this usually costly and difficult to construct.

Instead, straight parallel rows of seating can be used as these are more economical and easier in construction.

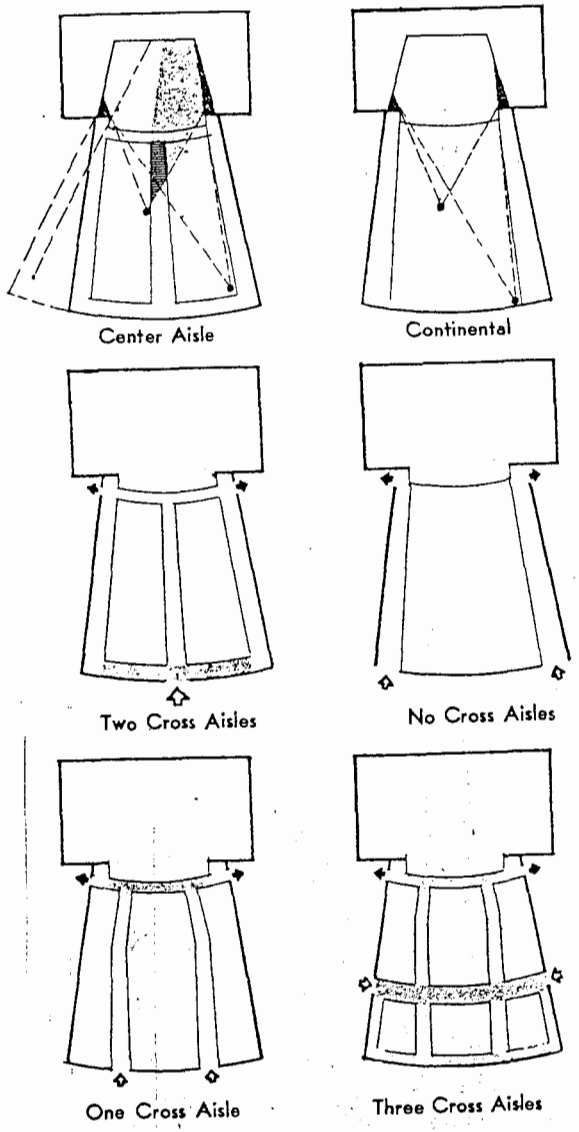
To provide best visibility from any position, seats can be staggered so no patronist exactly in front another in two succeeding rows.

Usually, the type of seating used is fixed and folding. Some arrangements allow a space for elbow but this is not necessary knowing that the optimum dimensions of seating arrangement are:

* Size of seat: Width with arms = 55 cm
  depth = 50 cm
* back to back distance between rows = 105 cm

- Aisles

In movie theater seating blocks do not normally exceed 14 chairs, so aisles are to be introduced between seating, for purposes of vision, side section aisles are the best, as opposed to some other arrangements such as the central aisle that wastes the most desirable seating area. The optimum distance between aisles is 140 cm.



- Sight Lines

These are basic standards to be respected in the design of any movie theater.

For good vision, side seats are to be approximately 100 degree from the center of curtain.

The peripheral seats of the first row are not more than 60 degree from the point of command(p), and the distance between this row is not to be less than 2R (R being the radius of the actual center of action).

For projections the distance from the first row to the screen is to be around 1.43 x height of the screen, taking the angle vision when sitting to be 35 degrees.

- Storage: A storage space is needed for customs, scenery, etc..

Area = 20 m.sq.

- Acoustics

Acoustics are affected by the auditorium shape, dimensions, seating arrangement and number, surface treatment and materials of interior decorations. To reinforce sound from the stage, reflectors above the front part of the auditorium may be provided so to direct sound to the back. Modification of the reflecting surface of the auditorium ceiling is very helpful as well.

Lighting in an auditorium should be absolutely controlled. The type and intensity of light usually varies with the shape and size of the seating space, but it is always concerned on the stage, other than stage lighting, light is needed during intermissions, for some activities as lectures and for emergency. For stage illumination in case of concerts and performances, spot lights and border lights are used. Moreover, front lighting through blocks in the ceiling is desirable.

The rear portion of the auditorium can be illuminated when needed by other sources of light, usually placed at the junction of the ceiling and side walls or at the ceiling. A dimmer system should always be a part of the installation.

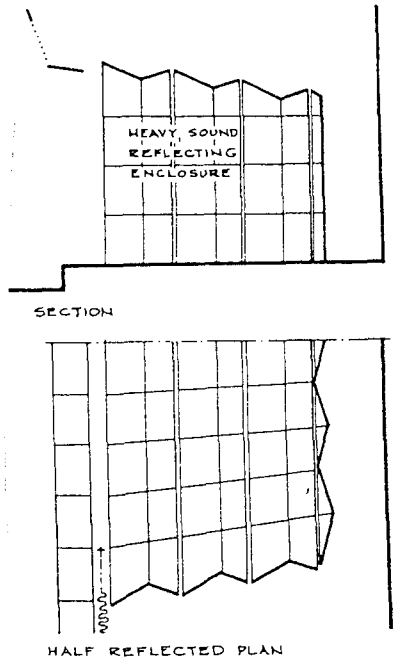


Fig. 42. Example of an orchestral enclosure for a large multipurpose stage

Fig. 44. A pulpit canopy may provide effective natural reinforcement of speech in churches

V- LIBRARY ANALYSIS

Knowing that such a facility is missing from region and even from most schools, a community public library can be included as a prime function, within the center.

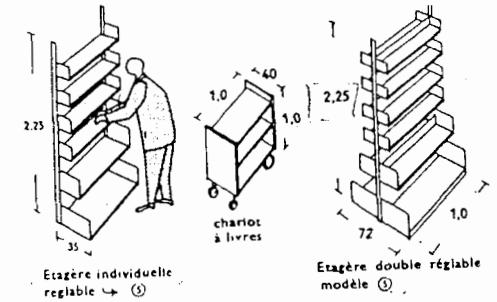
The library is to cater for youth and adults. It is a non specialized facility,providing access to various general subjects basically satisfying various interests, (literature, adults fiction and non fiction.) etc...

- Capacity

The library is going to serve the whole region of Iklim Al-kharoub with total population approximated to about 180,000 persons, (allowing for future growth). Serving this number, and according to some standards, the number of volumes is estimated to be:

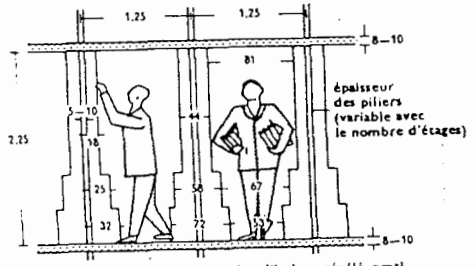
18,500 Adults library.

The number of seat is estimated as well to be 280-300 Adults library, approximately allowing 1 seat/300 persons



Etagère individuelle reglable ↪ ⑤

Etagère double réglable modèle ③



Ecartement des travées, tel qu'il s'est révélé pratique à l'usage.

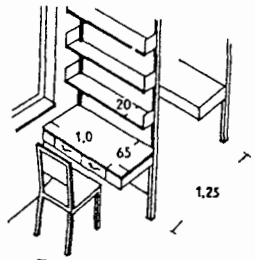
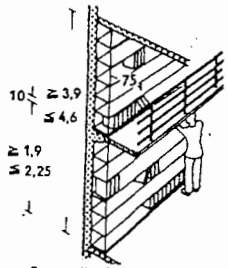
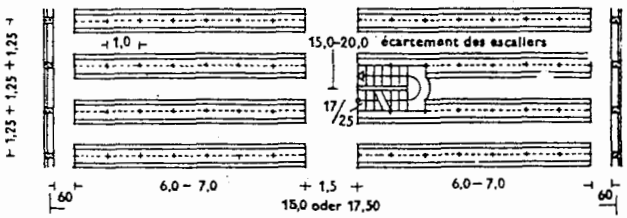


Table de travail dans la profondeur de l'étagère près de la fenêtre du magasin.

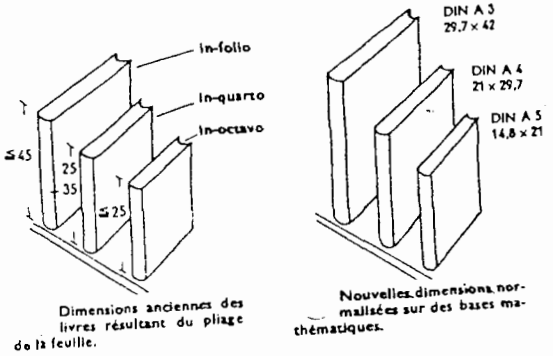


Passerelle (à mi-étage) poids propre et charge utile, habituellement 2.50 kg/m²



Disposition normale des étages d'un magasin avec escalier encastré. Les supports des étagères portent en même temps le plancher. E. 1:200

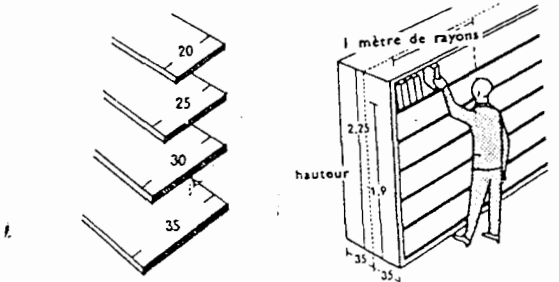
II- Catering for adults and youth above 13 opening hours can start from the morning, however concentration of readers is most probably to be in the afternoons and in weekends. The library will offer various types of services including reading spaces, periodicals and lending facilities of both books and educational tapes.



Dimensions anciennes des livres résultant du pliage de la feuille.

Nouvelles dimensions normalisées sur des bases mathématiques.

As easy access by readers to books is necessary in community libraries, almost all the books are to be kept as open stacks rare and valuable books can be kept in a closed area accessible only by staff members.



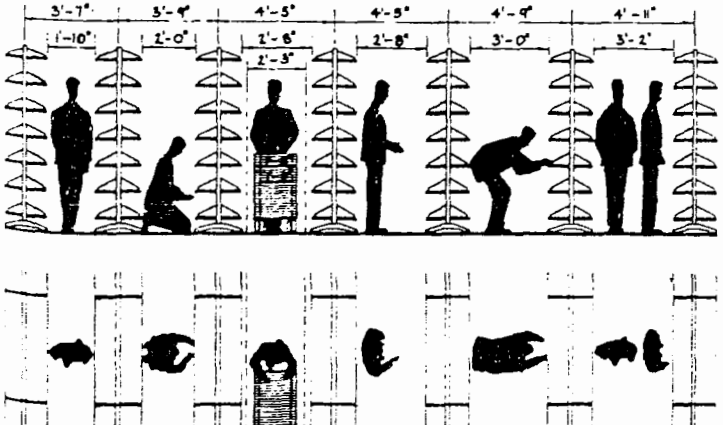
Profondeur normalisée des rayons. Dans certains cas exceptionnels 15 et 40 cm.

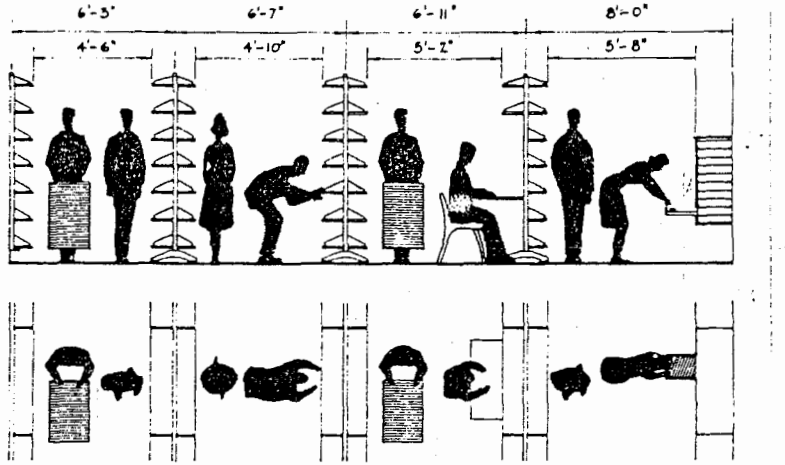
Ces étagères pèsent 500 kg au mètre (livres compris)

Books are to be basically distributed as such:

18000 volumes open stacks

500 volumes closed stacks.





- Space requirements include:

* Entrance and control area

* Lending and supervision area

- Cataloque area

- OPen stacks

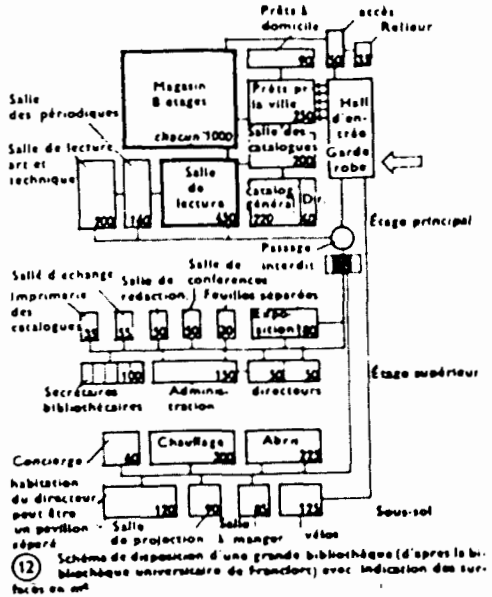
- Reading room

- Periodical room

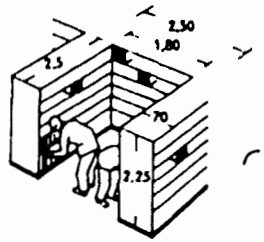
- Closed stacks area

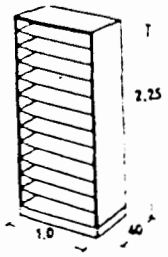
- Storage

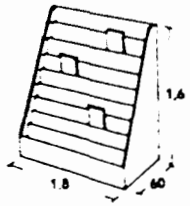
- Service entrance lobby

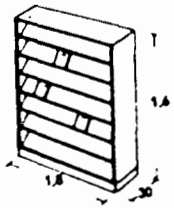


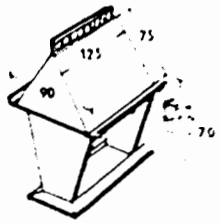
(12) Schéma de disposition d'une grande bibliothèque (d'après la bibliothèque universitaire de Francfort) avec indication des surfaces en m²

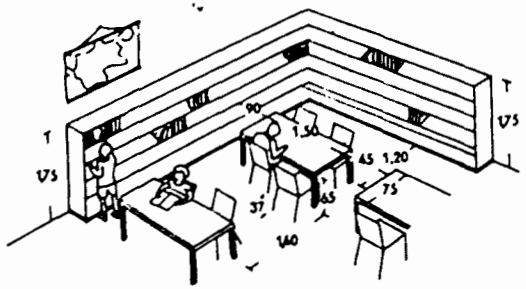


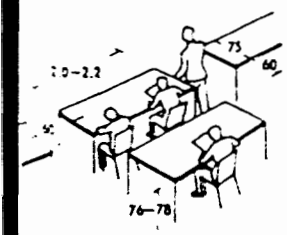


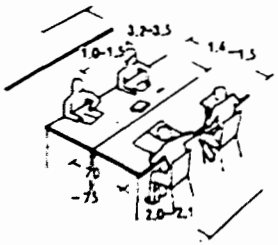


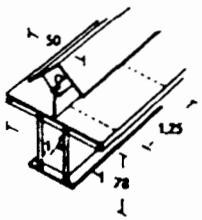


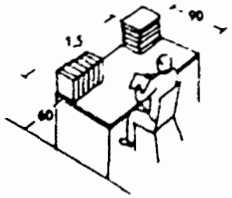


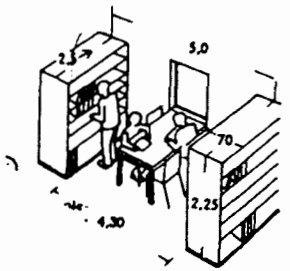












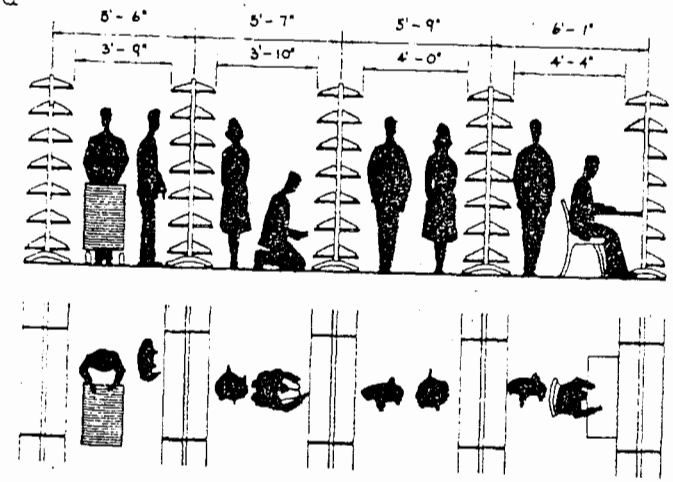
Entrance and Control

The control desk is to be located near the entrance for security reasons.

Area = 3.2 m.sq.

* Lending and Supervision Area

Here issuing and receiving of loan books and tapes place, in addition to reservations and registration of new reader's. The location of this area should allow maximum visibility of the reading space for supervision. Closed stacks can be part of this area in an adjoining space. A place for staff cloaks is needed here.



Area = 8 m.sq.

* Catalogue Area

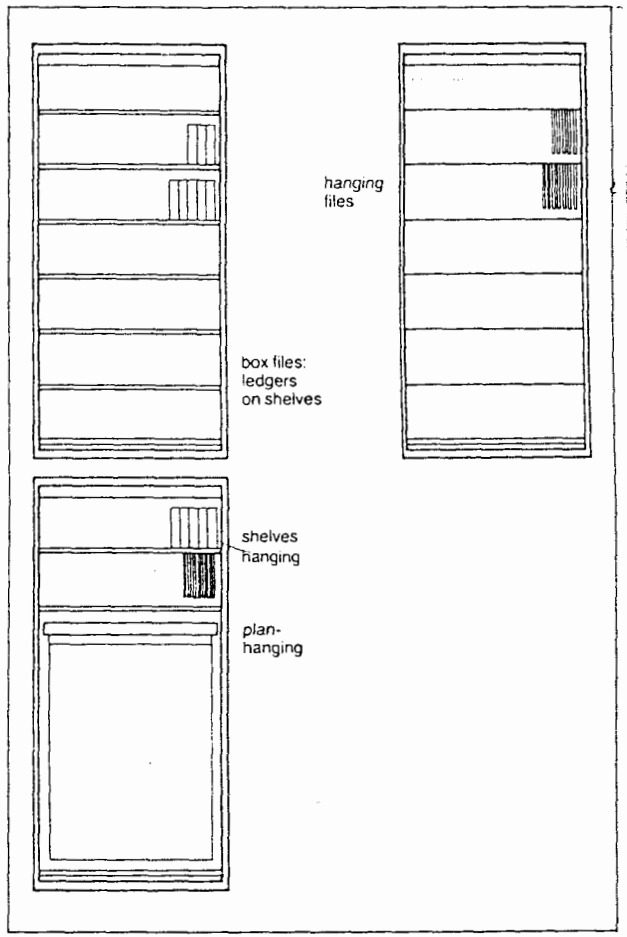
The 11,500 volumes needed and approximately area of 6 m.sq.

* Open Stacks

It is a space consuming section as opposed to closed stacks. Enough room is to be felt between stacks so that readers can choose their books while others still can pass by.

Assuming the shelving unit to be 5 shelves and 1 m in length, and taking the average book thickness to be 2.5 cm then each shelving unit can hold about 200 books. The total 18,000 volumes need about 70 shelving units.

Area = 90 m.sq.



* Reading Room

Offering variety of seating arrangements, formal and informal, with individual desks for serious reading. Reading space is to be combined with stacks as easy access to books is necessary.

Approximately, area for 300 seats, with circulation between tables 43 cm. sq.

* Periodicals

This section for newspaper and magazines is better to be separate for easy control and organization. Here new issues are displayed in an open area with a seating capacity of 15-20 persons. Previous issues can be kept in a storage accessible by staff members only. A control and inquiry desk is needed.

Area = 50 m.sq.

* Closed Stacks

Including 500 volume of rare or expensive books. These need about 3 shelving units *usually thick books).

Area = 2 m.sq.

* Storage

A storage for old periodical issues is needed.

Area = 30 m.sq.

* Service Entrance Lobby

For bind and new books, newspaper and magazines receiving.

Area =6 m.sq.

- Lighting

In a library natural light is necessary for comfort and asthetic reasons. The best orientations for a reading space being in our content North, after treating the glare problem, and reflected South light. However, flexibility and the economic use of wall space for stacks.

- Materials

A range of possible choice is available for floor, walls and ceiling materials. Floor materials include vinyl, linoleum, rubber, cort, wood, tiles , ... The choice of the best material is usually affected by various factors such as cost, durability, maintenance, quietness and appearance. Linoleum and rubber are quite good to walk on though not very attractive in colors. On the other hand vinyl has the disadvantage of not being quiet and easily scratched. Cork is not durable at all, whereas wood and tiles are noisy though can be very attractive.

For walls and wall surface, the most important factors to consider are cleanliness, but some dado material such as plastic, or glazed tiles and bricks reflect sound too much so are not to be placed in quiet reading spaces.

WAREHOUSES

As we have noticed through out the study. Almost each service an adjoining warehouse.

A truck should be accessible to the warehouse and loading docks should be available for ease of transport. The trucks should be accessible from the service entrance of the complex in order not to interfere with the other vehicular and pedestrian circulations. If placed underground, the warehouse should be accessible through a ramp.

The warehouse need good ventilation and require fire detector and automatic fire extinguishers.

To every warehouse, a warehouse keeper is needed. He is in charge of receiving the material, supervise its unloading, and watch its proper distribution.

Let us present in a sketch strip, the ORGANIZATION of GOODS DISCHARGE. The servicing is done from the truck to an electric vehicle and it is the electric vehicle that drives the goods to the proper warehouse, where the warehouse keepers supervise the unloading and check on the received items.

ORGANIZATION OF GOODS DISCHARGE

IN THE WAREHOUSES

To truck arrival

2. Parking at loading dock

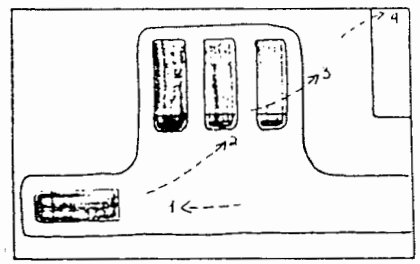
3. Driver leaves with

Liveraison documents.

4. Receives the keys of

the electrical vehicles from

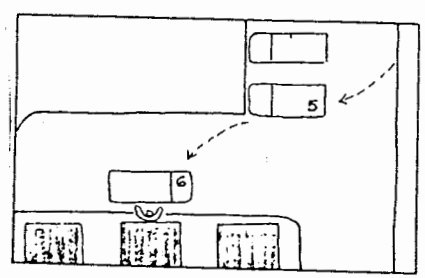
the gulchet.



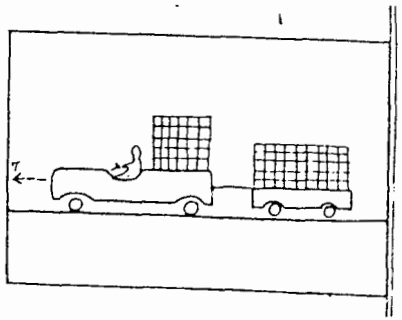
5. Goes electric vehicle

6. Parks it in from of the backside of the truck and discharge

the goods.

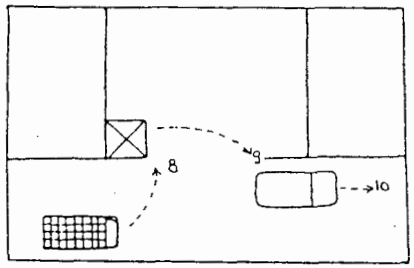


7. Drives to the appropriate warehouse.



8. Stops in front and discharge the goods.

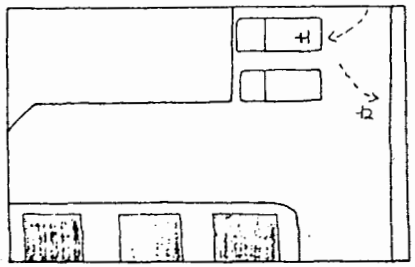
9. Signs receiving receipt to the warehouse keepers who organize the goods.



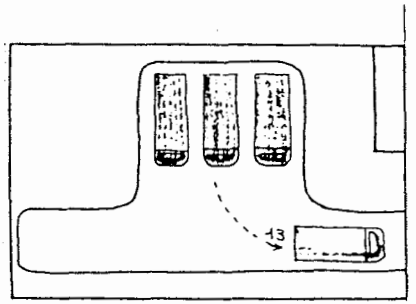
10. returns to service dock.

11. Parks the electrical vehicle

12. Returns the keys to the guichet



13. Leaves loading dock.



III. 10 THE PARKING FACILITIES.

According to building law, we should accommodate to one car for each 100 m.sq. of office area ===> for 5,000 m.sq. we need 40 cars. plus additional 100 cars taking into consideration public and visitors.

Cars = 40 cars for employees + 100 cars for visitors = 140 cars. If a parking garage is provided, each car would require approximately 30 m.sq. because driving lanes and ramps are counted = 4,000 m.sq.

The parking lots should be far from the buildings for 2 security reasons:

1. Cars are usually a good place, and acts of sabotage from parking lots usually common.
2. If any car exploded, it should be far enough not to reach the buildings.

If a parking garage is provided, fire extinguishers and springler systems should be provided.

Parking lots: Should be nearly level. The central driveway may be crowned with 1% slope drainage to the edges so that persons on foot will find the driveway relatively free water after rain in winter.

Parking lot drainage:

1- Tipping the total parking lot an sheeting along length
2- Tipping the total parking lot and drainage to one side
3- Warping the lot and collecting at a corner.
4- Draining to the center
5- Depressing the center over the length.

Screening parking lots:

a- Planting
b- Berms
c- Fences
d- Sinking parking lots, grossed parking areas.

III.11_ SERVICES

1- ELECTRICITY.	. Medium voltage room	5m x 11m = 55 m.sq.
	. Low voltage room	3m x 11m = 33 m.sq.
	. Generator room	3m x 8m = 24 m.sq.
		Total = 112 m.sq.

The fuel tank should supply the electricity generator 8 continuous hours in case of shortages, and the fuel reservoir should supply the generator for 15 days. This room should be properly ventilated.

2- HEATING AND COOLING: The complex should be air conditioned a possible system could be devised by the mechanical engineers, in using the computer energy for heating and for reversed process in some part of the building.

3- To Artesian wells should be dig in this rocky land that might be trapping water neighboring sites showed a water table.

4- Water Reservoirs: - The upper reservoirs should be for daily use.

- The lower ones should supply the entire complex for 7 days.
- Some additional reservoirs should be mean the fire station for water suppliance.

THE GOVERNMENTAL ARCHITECTURE IN LEBANON

- The difference between the successive civilizations, governments, and rules that over ruled Lebanon had great influences on the architecture of its public buildings, these public buildings which are mainly the remainings of the Othman, French Mandate, and indepence period show how the Lebanese architecture was so flexible to take an adjust the architect of these different civilizations which led, with the time, to the deterioration of the local style. For example, the Serai building in downtown is Turkish in style, the parlaiment is French. We can also find the touch of the American administrative architecture. In some of the American University of Beirut buildings. Noticing that this university was the first one to introduce reinforce concrete in Lebanon in 1900 which had a huge influence in the architectural style, specially, during the dependence period, and contributor in the creation of some special architecture like the Lebanese central bank building which shows clearly the detachment from the Lebanese architectural style.

Example Othman Architecture:

The Le grand serai

Location: Beirut - Downtown

rchitectural Style: it is built like Khan's which was intro-duced to Lebanon by Mamluks.

Fakhreddine: The rule of Fakhreddine was distinguished by his openness toward Europe and especially the Italian toscany. From where the prince brought with him some engineers, sculpturals and architects.

Fakhreddine capital, Dar-El-Kamar (a small city around a main plaza) is considered an Islamic city where Mosques and especially Jamii were related directly to public spaces which inluentially developed, planning wise, with mosques. These public spaces were dedicated for all types of social, religious, political, and commercial activities. A clear example would be:

1- Suk Al-midan which is an plaza with the water fountain and surrounded by the public buildings

2- The maanite princes mosque built to the western side of Suk Al-midan plaza by Fakhreddine. This mosque shows a richness by its Arabesque and fine ornamentations.

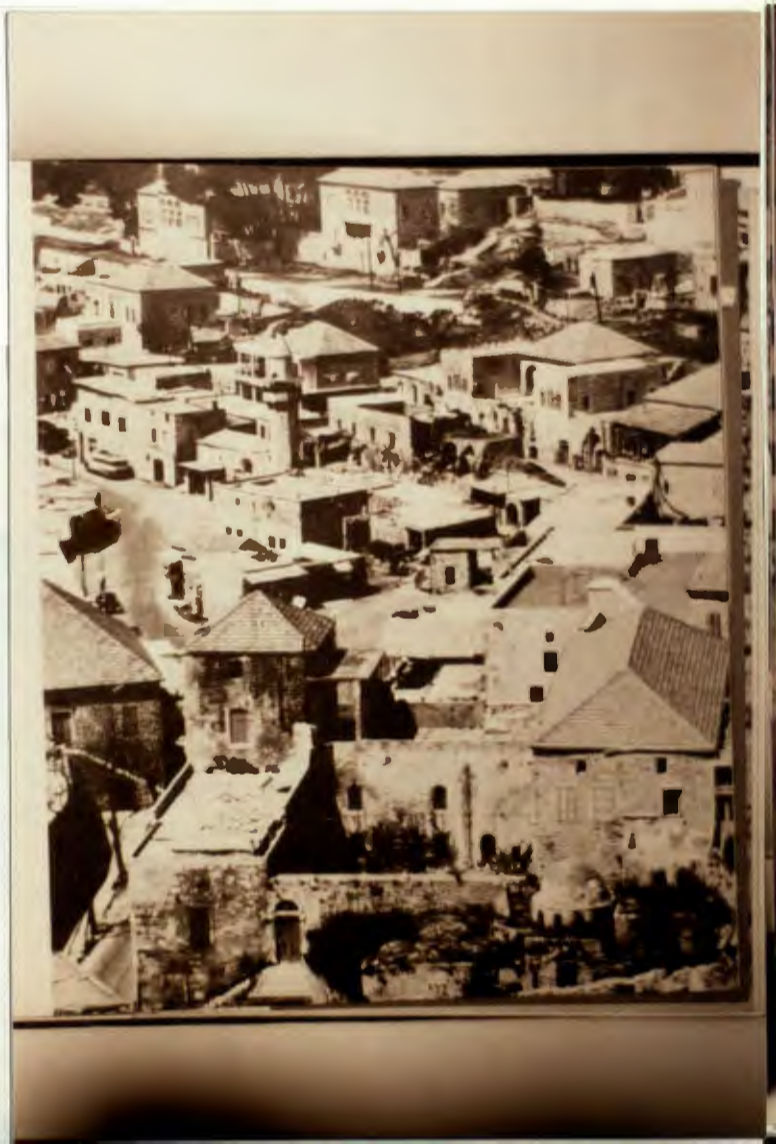
Architectural Styles:

1- The Liwans and internal courts of palacies began to be reflected in public buildings.

2- The facade were built by treated stone and arched windows with a variety of stone colors and materials.

3- Columns and ceilings gathered between arab and Western elements of decoration.

4- The internal gardens began to appear strictly planned landscape.



Deir El Kamar square

Deir el Kamar Municipal

Details

Details

Details

Beir El Din palace

Lebanon pos-
buildings.. The
iteddin (left),
nteenth - and
laces of Deir
en the capital
he valley.

A ty
door
on t
lower

FRENCH MANDATE PERIOD:

It is of the nature of any colonial country to impose its culture, way of life, and style on the colonized country so that to improve its dominance on it.

This was the case of the French who influenced greatly the architectural style in Lebanon and imposed on Beirut some buildings like :

1- The parliament house
2- Stade de-Sheila
3- The French officers residence
4- The Unisco Palace
and many others

Stade de Sheila

Ministry of foreign

Ministry of education

Lebanese University

Beirut Municipality

Parliement house

Police station (down town)

National museum

Court house

Chamber of Commerce

Central banks

Ministry of finance

Radio Station

R E F E R E N C E S

1- Book : Planning Office Space
   Author : Duffy, Frank

2- Book : Time saver standards for building types
   Author : de Chiara, and Callender

3- Book : Architect's Data
   Author : Neufert, Ernest

4- Book : Allewa' (Special edition of Sept. 1991
   Author : Allewa' Magazine

5- Book : The history of Iklim Al-Kharroub (In Arabic)
   Author : Al-Hajjar, Mohammed - Misso

6- Book : Governmental buildings (In Arabic)
   Author : Kanaan, Mohammed (BAU Graduate 1982)

7- Interviews with :

1- Sheikh Amin Shehadi (Judge)
2- Abel Fattah Shihadi (Lawer)
3- Issam Al-kaisi (PHD in Law)
4- The Club President of

a) Mazboud
b) Shehiim
c) Dalhoun
d) Katermaya

5- Hassan Seifeddine (Architect)