





EPsn  
446

**Thesis Research**

American University of Beirut

George Boueri

Fall 2009





“The urban sofa” is a metaphor for exploring the implementation of architecture under the notions of flexible public space, an initiating node for communal activities related to lounging, lying about, gathering, watching, observing, talking, eating ... widespread behavior usually articulated on this complex piece of furniture that is the sofa. This thesis will reference itself in local history in order to portray the shift from the sofa as a piece of furniture, to it becoming and defining the main breathing space in the household on one hand, while on the other looking to understand these same activities as they happen under different conditions in the public sphere. The choice made of implementing the urban sofa under the sphere of public domain has to be stressed at this point since, by definition, I believe it cannot exist on the urban scale as an enclosed, segregated room – another building that can be closed-a mall. The research will go through a series of case studies that aim at deconstructing basic architectural constituents, such as walls, ceilings, floors, and look at how they are reshaped in order to accommodate spontaneous activity while still serving basic programmatic requirements.

The site chosen for implementing the urban sofa came in during the primary envisioning of the thesis proposal; the City of Jounieh, alongside the Shire area, facing Jounieh Port. A further analysis of the city proved a dire need for an injection of communal activity in order to try and revive the coastal city after its main, natural gathering ground, the public beach, has been privatized and blocked off. Through a locally generated program of needs and activities comes the vision of project Green Sofa, an urban sofa on the bay of Jounieh.

**I. INITIATING THE METAPHOR**

- A. REFLECTION ON THE PROGRAM**
- B. REFERENCING THE SOFA IN LOCAL HISTORY**
- C. SOFA POLITICS**

**II. ARCHITECTURAL INVESTIGATION**

**A. SOFA ARCHITECTURE**

- 1. SPORTS AND LEISURE CENTER
- 2. HANAMIDORI CULTURAL CENTER
- 3. HIGH SQUARE
- 4. ECO BOULEVARD –THE LUDIC TREE
- 5. KASTRUP SEA BATH
- 6. PUBLIC FARM 1

**B. SOFA USERS**

- 1. SPATIAL NOTIONS
- 2. APPROXIMATING DIMENSIONS THROUGH LOCAL DOCUMENTATION

**III. PLACING THE SOFA**

**A. THE CITY –JOUNIEH**

- 1. A FRAIL MEMORY
- 2. NOSTALGIA
- 3. DIAGRAMMING THE COASTAL EVOLUTION

**B. THE URBAN CONCEPT**

LOCATING THE WINDOWS

**C. ZOOMING IN**

1. IT WAS THERE

2. CHOICE SITE –DOCUMENTATION

**D. QUALITATIVE LOGIC**

1. PROGRAM

2. PROGRAM TABULATION

**IV. PROJECT ...**

**THE VISION**





The Urban Sofa is an architectural investigation initiated by a simple idea, a title, and an irrevocable belief of reviving communal spirit in a country rapidly decaying in values and unison of will.

Transmitting social, experiential, and architectonic attributes of the sofa will define a unique typology of spatial relationships that create a skeleton of degrees of public maneuverability and connectivity. Beginning from a metaphor to an architectural investigation, a spatial documentation, a sit analysis, and project formulation, the thesis will give birth to project ..., an urban sofa for the use of its community.



# I. INITIATING THE METAPHOR

## A. REFLECTION ON THE PROGRAM

The sofa is just an excuse.

The sofa itself is not defined for a specific program on its own, and because of that, people have used it under different pretexts, generating different excuses to be in the living room; to be amongst the public sprawl of the house. You eat on the sofa; you nap or even sleep there too. It is a good reading chair just as it is formal enough for you to receive guests. Perhaps its most primitive cause would have been to provide comfortable seating, but how and how many people sit at the same time can vary infinitely.

(FIGURE. 1A)

Such programmatic flexibility generated by constant appropriation has become an excuse catalyst nurturing a basic human need to congregate, talk, and socialize. In an Urban environment, within the greater family of the neighborhood or the city district, excuses vary from basic activities such as drinking coffee or reading the newspaper at the local café, to attending a social event like a local play or a festival or parade, to indulging in a program that requires social interaction such as a friendly bargain at the market place, or a bit of flirting at the beach. Dr. Dana Sajdi, a post-doctoral fellow at the Wissenschaftskollegzu Berlin, quotes as a famous proverb in Ottoman coffee houses. *"The heart desires neither coffee nor a coffee house. The heart desires conversation. Coffee is simply an excuse"* (ottoman tulips, ottoman coffee, p154). (FIGURE. 1B)

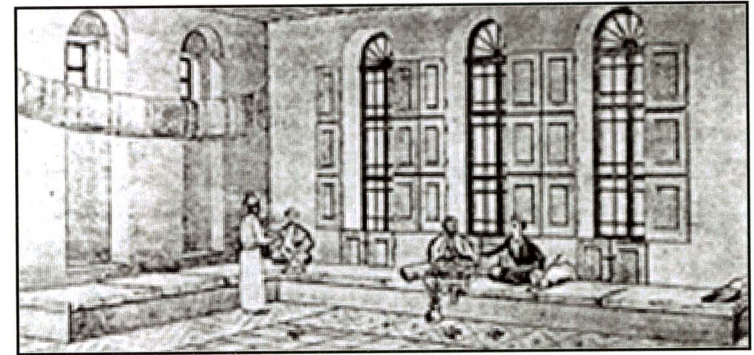


FIGURE. 1A OLD SOFA ROOM



FIGURE. 1B SOFA ROOM

## B. REFERENCING THE SOFA IN LOCAL HISTORY

Dr. Sajdi refers to the separation between public and private spheres during the ottoman period not as a clear-cut break between the two. An integration of both is reinforced as the author describes the interior of the cafes and draws frank similarities between the two, “*Similar to the room of the house into which guests are greeted (...) this was where most café bearers spent their time, on slightly raised divans*” (ottoman tulips, ottoman coffee, p149). Moreover, In order to allow women some breathing space, men of poorer families would step out of the household and gather at the local café which turned into the second living room of the house, so much so that the café would itself also house a sofa as part of its furniture. Women on the other hand would use day-to-day activities like going to the market or fetching water from the stream in order to steal some gossip. (FIGURE. 2)

Quite evidently, the public sphere was but a mere continuation—a complementary extension of the house. (FIGURE. 3)

Articulating these notions were the local cafes, which sprung up in every district, around every corner in Ottoman cities; to the extent that when new neighborhoods were to be designed the first shops to open were the cafes. She proposes we think of public facilities in terms of what Michel Foucault calls, “*Heterotopias: a space capable of juxtaposing in a single real space, several sites that are in themselves incompatible*” (ottoman tulips, ottoman coffee, p137). Such activity was not unique to cafes alone; barbershops, and

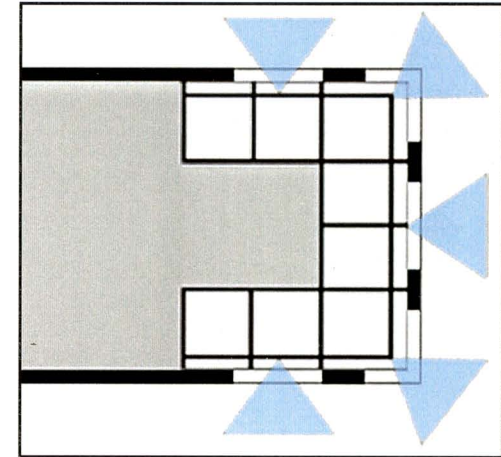


FIGURE. 2 PLAN

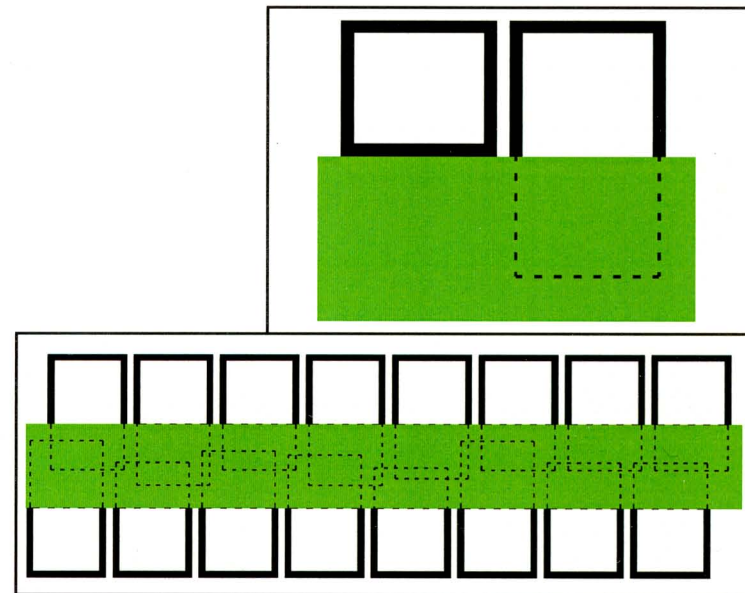


FIGURE. 3 SOFA EXTENDING VIRTUALLY OUTSIDE THE HOUSES

bathhouses are other examples of such programs. In order to relate more precisely to the issue, Sajdi exemplifies that ottoman cafes for example were looked upon differently depending on how they were needed, *“An extension of domestic spaces, places of business and leisure, an extension of the street or market, a venue of entertainment, a space of courtship, an arena of communication, a place in which to read and a realm of distraction”* (ottoman tulips, ottoman coffee, p136). They acted evidently as Urban Sofas within their neighborhoods.

The Ottoman example is evidently not unique in nature; yet looking through the lens of the Ottoman era provides us with the closest historical identification pre-colonial rule and the importation of western concepts.

### C. SOFA POLITICS

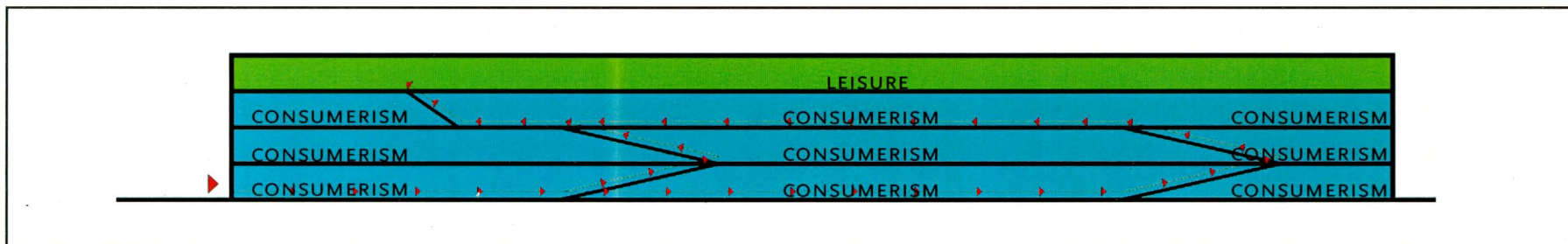
The need for a sofa in the public sphere.

It is also quite important to look at the cafes and communal spaces not only as references of programmatic flexibility; the politics that bred from such places played a key role in initiating public interaction and discussion aiming at enhancing, resolving, and digesting matters of communal interest.

According to Habermas, the separation of the workplace from the house caused an increasing privatization of the home and the family. The home became a retreat from the “outside world”, and even within the home, architecture further induced the gap between the private and public areas by creating a clear cut divide between what is public and what is private. The individual became gradually detached from the public sphere engendering a larger autonomy from the community; *“Architecture increasingly separated out private from public elements, generating a space in which privatized individuals and subjectivities could take shape”* (after Habermas, new perspectives on the public sphere,). So much so that public issues that used to be discussed in public circles have been marginalised into private matters, to the extent that the very meaning of “public” no longer refers to a single entity but to the coming together of private individuals.

This has created a group of individuals who, enclosed in their homes, very easily consume information that hit them directly through popular media, without going through the process of disputing and digesting issues

through public debate; making the privatization of the public realm very easy especially in a community lacking in proper public facilities like Lebanon. Perhaps the mall is one of the biggest examples where the meaning of the public space has been altered from a constructive phenomenon to one that is of pure consumption. The very politics of the mall or mall design is to attract as much people into the building and through it by using popular leisure activities (such as cafes, cinemas, and even theme parks) where they can then be bombarded by advertisement that will inject in them the need to constantly consume—making of that a “public” event—herding cattle to a barn. **(FIGURE. 4)**



**FIGURE. 4** CITY MALL AND CINEMA ON TOP

This has engendered a community that replaces debate, reaction and activism with one of mere gossip, passivism, and consumerism. Furthermore, the mall has its own set of policies and restraints regarding what is to be an appropriate standard of activity, one that always aims at much neutrality, and the least possible spontaneity.



What is needed is to reactivate the Urban Sofa as an initiator of public activism, a typology capable of regenerating the public domain and releasing the shackles of privatization.

Architecture then has its role of attracting the public flow and reinforcing public participation; a duality of program is then generated- one referenced to as excuses that aim at creating communal ground for gathering, while the second provides launching pads for public activism when necessary.

*“The institutions for lectures and discussion, the collective deliberations on questions of common interest, the trade unions, the political agitation, all serve to awaken public spirit, to diffuse variety of ideas among the mass, and to excite thought and reflection in the more intelligent”* (Mill, 1985:124) (after Habermas, new perspectives on the public sphere, p80).

*“To protect areas of life that are functionally dependent on social integration through values, norms and consensus formation, to preserve them from falling prey to the systematic imperatives of economic and administrative subsystems growing with dynamics of their own, and to defend them from being converted over, through the steering media of the law to a principle of sociation that is, for them, dysfunctional”* (Habermas, 1987: 372-3) (after Habermas, new perspectives on the public sphere, p126).





## A. SOFA ARCHITECTURE

The choice of case studies revolves around the idea of rethinking the different architectural elements in order to integrate architecture and the built environment as catalysts for public activity. It is a dance between what is programmatically required, solid, rigid, and what is totally free and undesignable—the spontaneity of its users.

The case studies themselves do not aim at presenting the buildings as objects, sculptures to look at, but as spaces to explore, experience, manipulate, and exploit.

ACXT 's entry for the idea competition of the Sports and Leisure center relied on a major factor which is lack of empty land in this largely industrialized area. The concept drive was to keep the same surface of open space plan by manipulating and folding the ground plane instead of just building over it.

### 1. SPORTS AND LEISURE CENTER

LOCATION: LANGREO, ASTURIAS, SPAIN.

ARCHITECTS: ACXT

*“To propose a new landscape rather than a new building. To waste nothing of the existing available land.”*



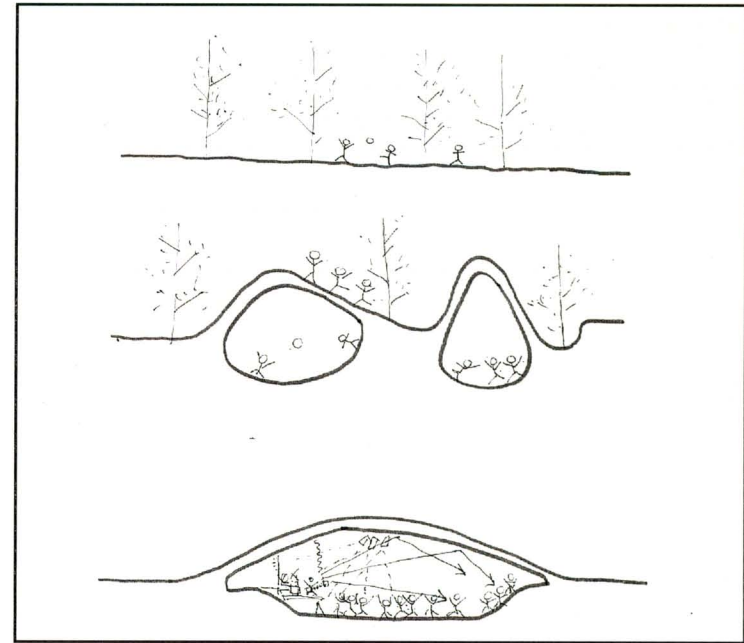
SPORTS AND LEISURE CENTER:

URBAN CONTEXT

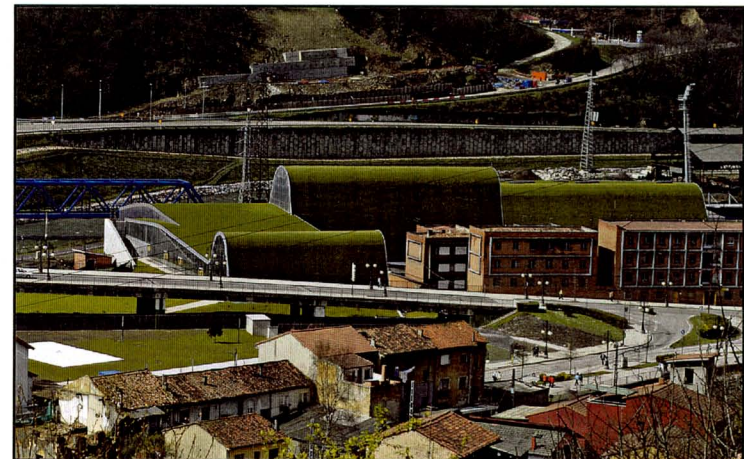
Activity can be generated “within the ground” and on the top surface by a simple manipulation of the ground plane. The top surface having been reshaped is now capable of generating a numerous variety of events that would not have been available with a flat ground plane. The project itself now houses, within the structure, a very specific program with very rigid dimensions and service areas such as the swimming-pool, a sports hall which could be converted for concerts, gymnasium... while still keeping a second layer that is adaptable, open to spontaneity. Due to a decline in the administered budget, the vision of the walkable roof was not executed in the end project so the portraying of a roof section in this case study would not be helpful. On the other hand, looking at some functional criteria according to which the different programs were laid out would prove successful in understanding the intent of arranging the activity and usage flows—of which I extract the following:

- A single entrance for access and control (for concerts and sports events, other entrances have been provided for).
- Representative hallways (for efficient and fast mobility).
- Removal of architectural barriers in all routes.
- Minimise routes among common interior surface areas.

A look at the plan would show the entry point to be in the middle of the project, flanked on both sides by the programs. Aligned in the middle section too are the service areas such as administration and locker rooms. This allows the administration to be directly accessible from the same control point, on



SPORTS AND LEISURE CENTER: CONCEPT SKETCHES



SPORTS AND LEISURE CENTER: ROOF IN CONTEXT

one hand, and for the locker rooms and showers to be in the middle of the activity spectrum and right near the access and exit point. (FIGURE. 5)

A single plane manipulation, such as that of the ground, thus allows the generation of multiple layers of activity. At the core of the programmed spaces is a series of programmatic proximities that ensure the user easiness of service and mobility.

A second project that entails a constructed walkable roof is the Hanamidori Cultural Center. This project exemplifies different simple means of filtrating public flow into the building while mediating and blurring the boundaries between interior and exterior, making of the interior as much as possible, a simple covered extension of the landscape.

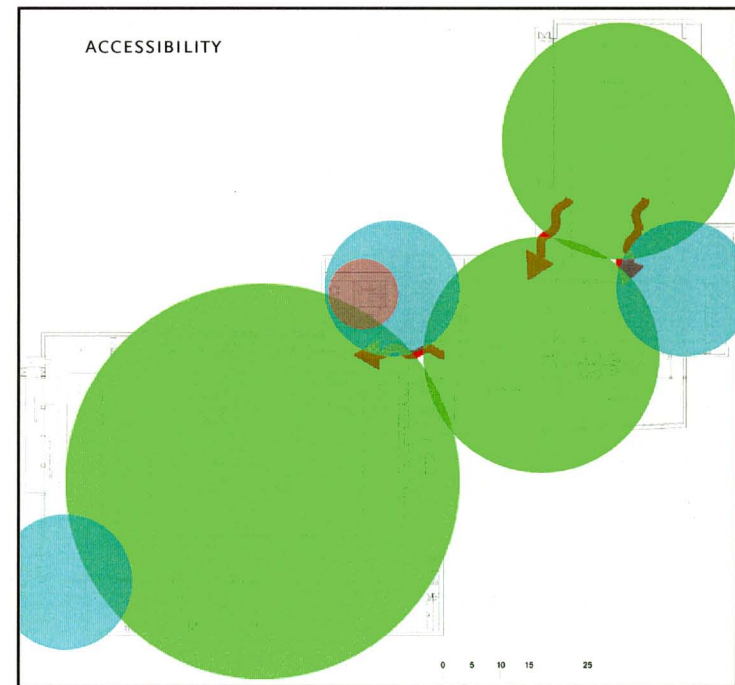
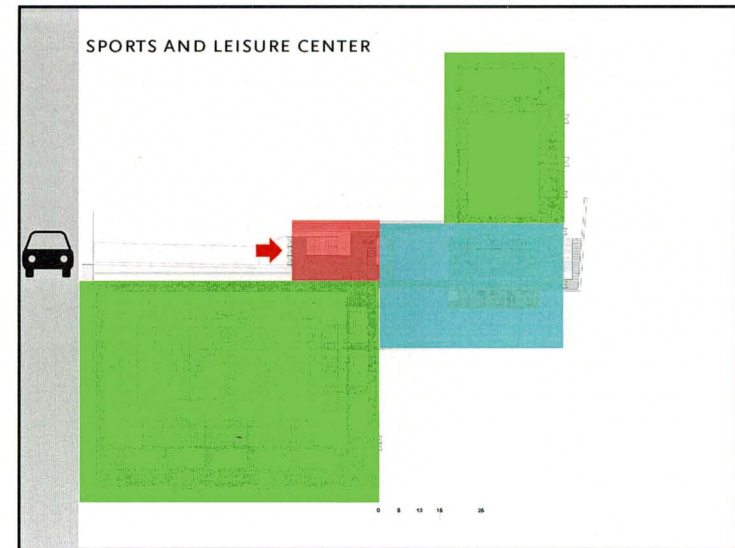
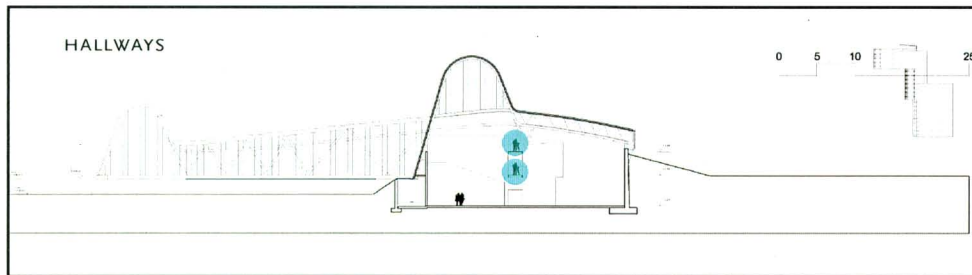


FIGURE. 5 SPORTS AND LEISURE CENTER:  
HALLWAYS & ACCESSIBILITY



## 2. HANAMIDORI CULTURAL CENTER

LOCATION: TATCHIKAWA, TOKYO, JAPAN

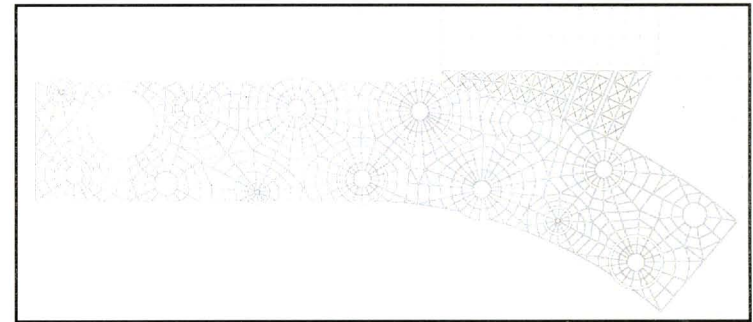
ARCHITECTS: ATELIER BOW WOW

*The basic concept was for a “growing architecture”, in response to the developing activities of green culture, and for “parkitecture”: architecture integrating with landscape, in which interior and exterior are connected. Our intention was for a space as comfortable as in the shade of a tree that would provide support for park activities.*

Built in the Showa Memorial Park, the roofscape is designed as a continuation of the upper park flow while creating a covered space underneath, attached to the lower park. As shown in the west elevation, the park part of the program is not abruptly cut off by the built environment but allows a gradual filtration from open space to enclosed space. The first layer of filtration, which is the roof is so subtle that you would not feel that you have stepped out of the park before you reach the edge. The roof is punctured by circulation wells that lead you down to the heart of the museum. The lower façade, facing the lower park, is a retractable curtain wall that allows a visual unity with the park, while also having the possibility of opening up and physically expanding the museum unto the landscape. It is crucial for the project to break the barrier between what is interior and what is exterior in order for the flow of users to continue freely without envisioning this built part of

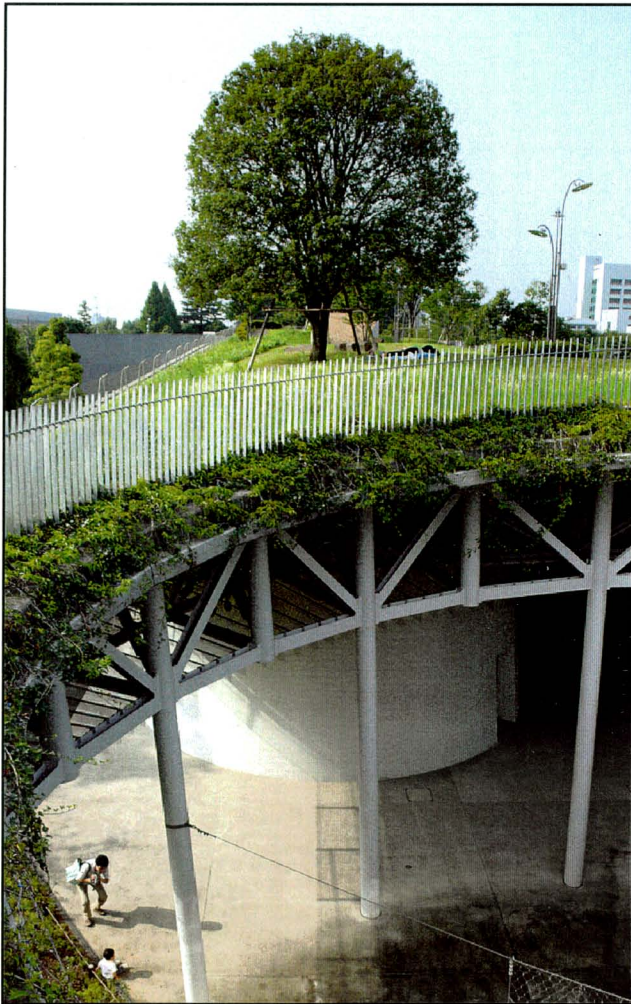


HANAMIDORI CULTURAL CENTER: VIEW IN CONTEXT



HANAMIDORI CULTURAL CENTER: ROOF STRUCTURAL SYSTEM

communal park ground as a private enclosure. Moreover, even the natural materials used in each of the activity zones were employed to mediate interior and exterior. (FIGURE. 6A & 6B)



HANAMIDORI CULTURAL CENTER

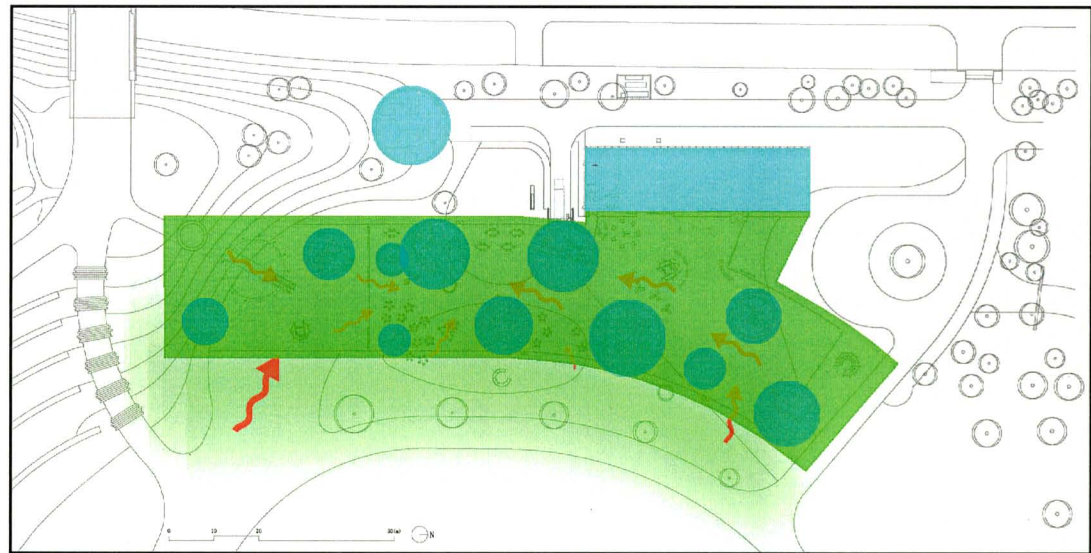


FIGURE. 6A CLOSED PROGRAM IN PLAN



FIGURE. 6B FILTRATION OF PEOPLE INTO THE BUILDING



In order to accommodate a landscaped rooftop that fluctuates in slopes, the design of the construction system is crucial in order to encompass such flexibility while still performing structurally. The roof slab was designed as a truss system “formed by radial extended T-bar”, “synthesized in the manner of a spider’s web”. Approximately 3m in width, with the thickness also varying from 3 to 6m depending on the depth of soil on top, the vertical components of the structure does not rely on a simple grid of columns. What is interesting here is that both program and structure coincide to make the building work. Programmatically enclosed rooms formed in cylindrical shapes have their walls acting as grounded supports for the truss that increases in height at the connection with the cylinder due to its moment of inertia. The space in between the truss would then be able to accommodate mechanical systems such as HVAC, piping and electric circuit that would feed the spaces from top. The floor plan is thus left more maneuverable, freer and more flexible.

The programmed spaces end up being the physical pillars of support for a roof system studied both structurally and programmatically (in terms of ease of accessibility) to provide a large margin of flexibility (in span, openings, and use). The building’s continuation of the landscape ensures free flow of the users into the space, while its complementary structure ensures a skeleton for its functioning.

High Square encomapses a series of slopes on the rooftop of a mall. This framework provides for a duality of open and enclosed spaces that become architecturally complementary.



HANAMIDORI CULTURAL CENTER: PEOPLE FILTRATION



HANAMIDORI CULTURAL CENTER: ROOF STRUCTURAL SYSTEM

### 3. HIGH SQUARE

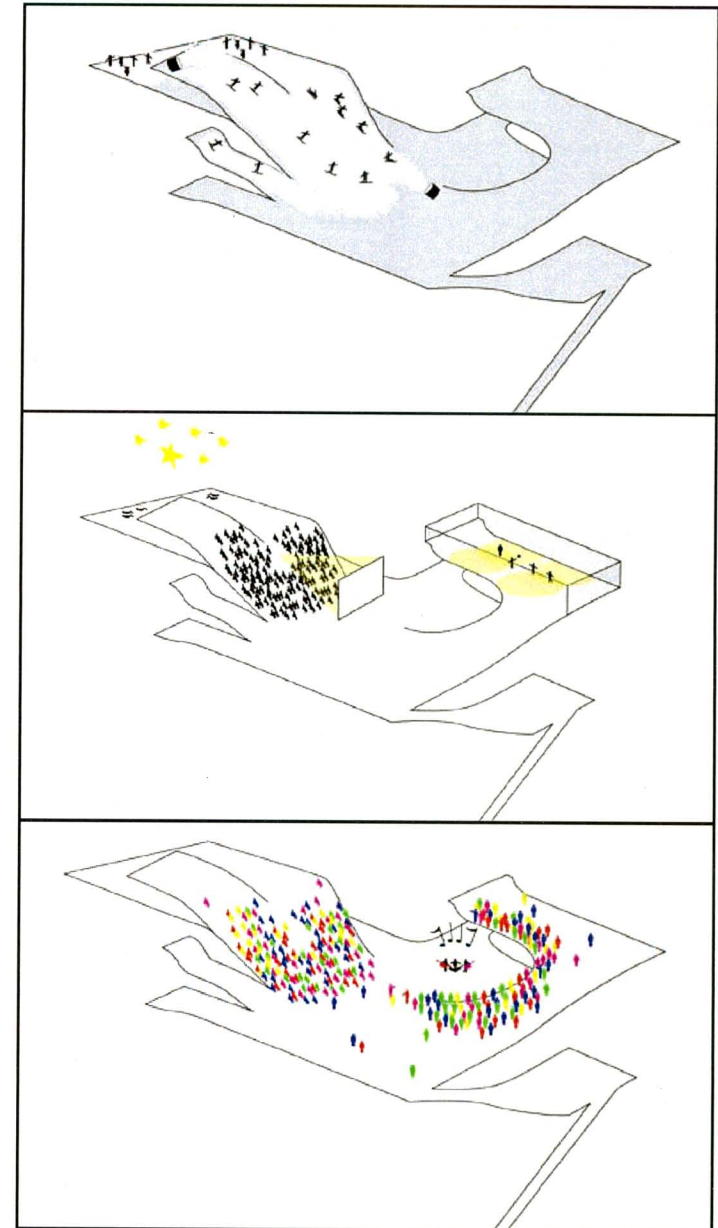
LOCATION: COPENHAGEN, DENMARK

ARCHITECTS: JDS & BIG

*"The square is an oasis that will combine the benefits of space, air, and unprecedented views with a highly urban program, including outdoor cinema, a drop off for cars and taxis, cycle routes, cafes, and stages..."*

High Square is a 3000m<sup>2</sup> open area located on the roof of a shopping mall in the heart of Copenhagen city. Although the project is still to be executed, one could learn greatly from the programmatic diagramming. The project makes use of the varying heights of the rooftop to produce a series of slopes that can perform diversely. The inclination of the slopes is not produced randomly; on the contrary it is a derivative or a mediator—the least common denominator between numerous possible programs that require the same architectural basis—the slope. Thus, it is generated by a need for diversification, yet is backed by a pure mathematical and geometrical rational. **(FIGURE. 7)**

The slope then becomes a generator of activity under different programs that might overlap at some points or that can be activated separately depending on the needs of the users, yet constantly relying on a single skeleton—the slope. On the other hand, enclosed functions either substitute a byproduct



**FIGURE. 7** PROGRAMMATIC OVERLAP AND  
COMMON GROUND

of the skeleton or they exist as the ground base for its happening. They might exist in the gaps between one square and another, in between two varying slopes etc. Consequently, the sloping roof of the theater used in its inner layer as an acoustic enhancer, breeds in its outer shell another sloped surface that prompts a second layer of activity such as an outdoor theater or a skateboard ramp etc. (FIGURE. 8A & 8B)

Due to the project's disconnection from the circulation flow happening on the street level, accessibility to the square is crucial to its survival. This project exemplifies quite an extreme condition; yet extreme countermeasures too were taken to ease access to the rooftop. A vertical ascension is provided by an escalator directly, unmediated connection to the street. Making the link through an elevator would have required on one hand a certain lobby or intermediary space that would have cut off the flow of circulation, while the elevator itself, as a means of transportation, is quite abrupt in its transition—street, room, roof. An exterior escalator, on the other hand, provides a more transitional procession through space with a direct connection to the starting point, making of it more desirable for the user to proceed. Since it is a long span from starting point to end point, stairs would have been too tiring and less encouraging, especially for the elderly and people with handicaps. Moreover, the journey to the top floor stops at an intermediary open square, and then shifts to proceed to the next level in opposite direction. This forces the user to go through the space instead of bypassing it, hence pushing him/her to start to participate in the space. (FIGURE. 8C)

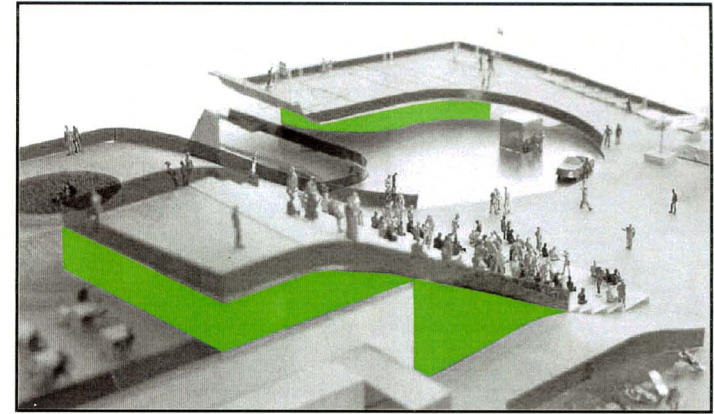


FIGURE. 8A ACTIVITY AS A BYPRODUCT OF THE SLOPE

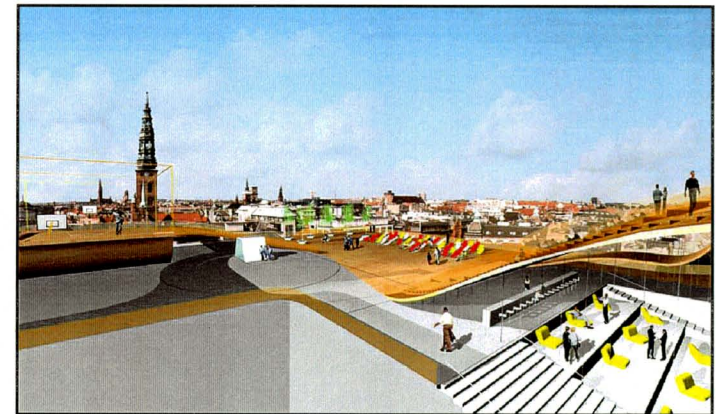


FIGURE. 8B ACTIVITY GENERATED ON BOTH SIDES

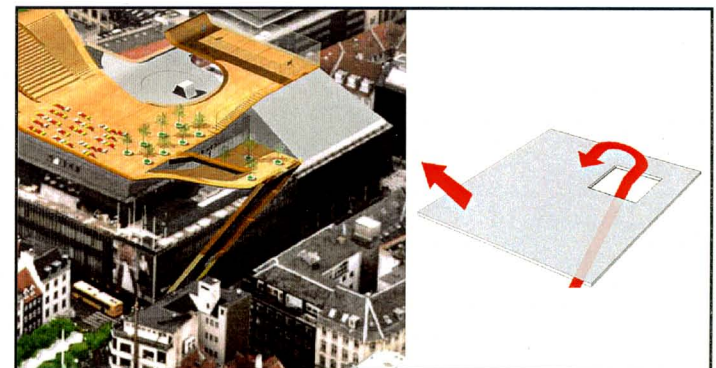


FIGURE. 8C ESCALATOR CIRCULATION

Such subtle politics of designing space and enhancing the use of different architectural elements (such as the slope) set in motion an encouraging drive of participation in communal activities that correlate with the notion of an urban sofa—an initiator of communal activities.

Ecosistema Urbano provide a series of “Ludic Tree” as a temporary installations to revive a boulevard lacking in activity anchorages and a climate friendly public environment.

#### 4. ECO BOULEVARD —THE LUDIC TREE

LOCATION: PAU DE VALLECAS, VIAL C-91, MADRID, SPAIN

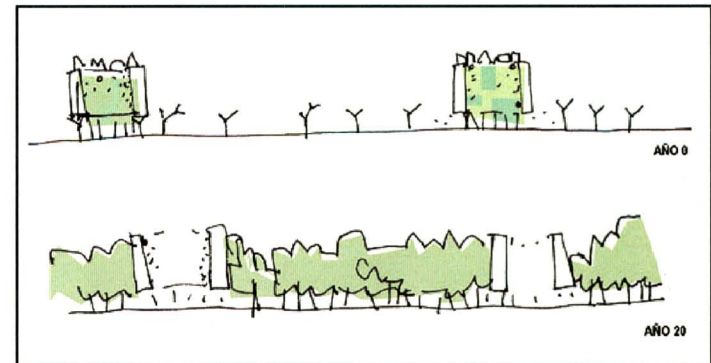
ARCHITECTS: ECOSISTEMA URBANO

*“We do not think a building is necessary, but a place for people whose shape is defined by the very activity developed in it at a given time”.*

Vallecas is a suburban development lacking in appropriate public life mostly due to bad city planning. Large boulevards were developed that did not initiate enough interaction with the residents. This lack of utilization of the public conveniences is largely due to harsh climatic conditions- mainly excessive heat in the summer. Seeing as trees would take 15 to 20 years to provide sufficient shade and could be relied on as supports for the public domain; the design entry found it necessary to introduce a structure that would be able to supply a higher climatic comfort and serving thus as the seed of a



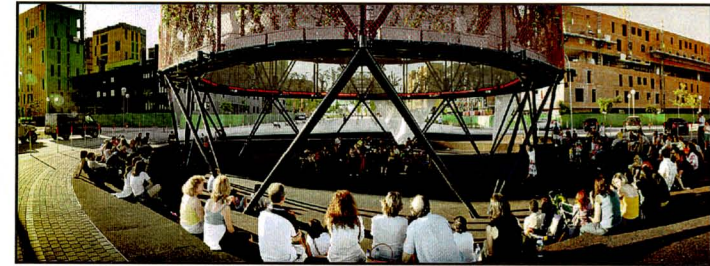
THE LUDIC TREE: VIEW IN CONTEXT



THE LUDIC TREE: CONCEPT DIAGRAM

public space regenerating process. The architects didn't find a necessity to enclose programs in a building where climatic control can be managed; instead what was assembled was a structure that would, in the most basic of terms, act like a tree. This structure is designed to be energy self sufficient through the use of photovoltaic cells, while borrowing climatic adaptation techniques used in the farming industry on the other hand to overcome the temperature difficulties- The architectural potential of technology lies on its reprogramming and combination with other elements, so that true architectural ready-mades are configured. The simple climatic adaptation systems installed in the "trees" are of the evapotranspirative type, which is often used in greenhouses. This artificial adjustment tries to reactivate the public space by creating climatically adapted environments (8fflC-10fflC cooler than the rest of the street in summer) where citizens will be once again active participants in communal activities. The structure is foreseen as a temporary installation, ready to be dismantled once the "real" trees have sufficiently grown to play their part in the public space. Once they are removed, their absence would create what would be a clearing in the forest. **(FIGURE.9A & 9B)**

On a more programmatic level, the tree would provide a stage- like presence in the large boulevard—a reference or node of activity supported mechanically by the structure's electricity. Moreover, the construction is positioned asymmetrically within its assigned area, allowing activities to expand around it differently, varying in size. The entire area is sunken in, making of the variation in levels a seating overlooking the centre stage. Plug-ins were also designed where swings could be attached.



THE LUDIC TREE: ACTIVITY AND GATHERING

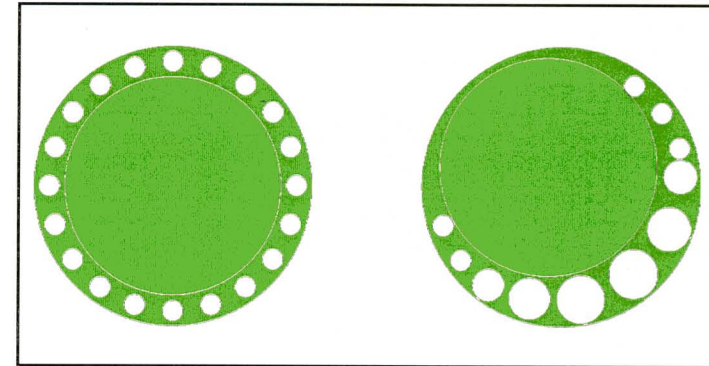


FIGURE. 9A DIAGRAM OF ASYMMETRICAL ACTIVITY

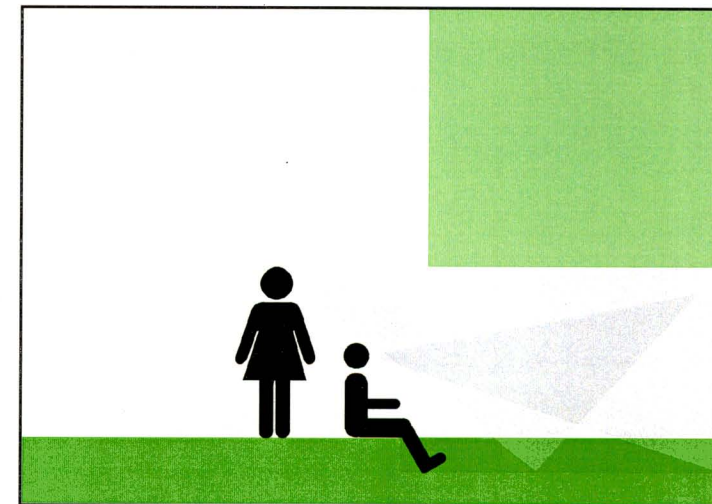


FIGURE. 9B DIAGRAM OF SUNKEN LEVEL

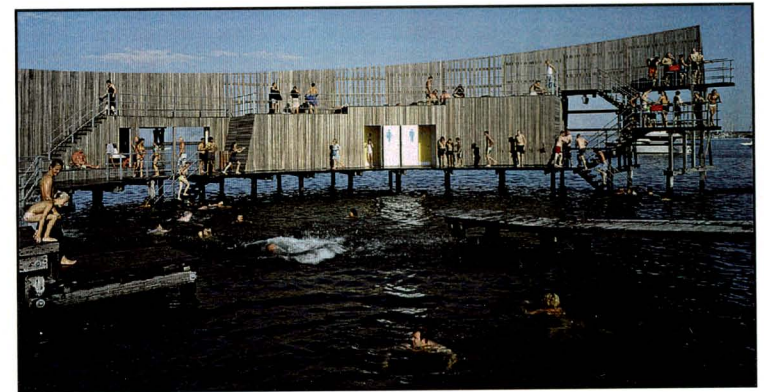
## 5. KASTRUP SEA BATH

LOCATION: KASTRUP, DENMARK

ARCHITECTS: WHITE ARKITEKTER AB

*“This is nothing private or exclusive, rather a facility open to everyone, regardless of age, physical mobility or needs. Bathing is not compulsory, even though it looks inviting.”*

The aim of the project was to use a shape within which functions such as changing, sunbathing and swimming were inserted, yet did not monopolize the use of the structure. If you look at the project in section, you could say that it is mostly a wall that, on one hand, frames activity in its centre and shields it from the winds, while at the same time houses the services within its thickness. A simple play of discontinuous thickness of the wall creates enclosed spaces, seating areas, jumping platforms and gathering spaces. The circular shape of the Sea Bath generates a constant visual link between the users and the radial plan allows a continuous flow of movement through the different activities happening that seem unified by this bold gesture. The circle is not continuous all through; it breaks facing the beach allowing visitors to look at the activities going on and, in a way, signalling that there is no obstruction to access the bath. This is even more emphasised in the plan where you can notice that the pier runs all the way through, right into the heart of the bath where the facing wall is hollowed out to keep a visual continuity into the sea. It surpasses the level of the door that leads to the



KASTRUP SEA BATH: ENGAGING THE PLATFORMS

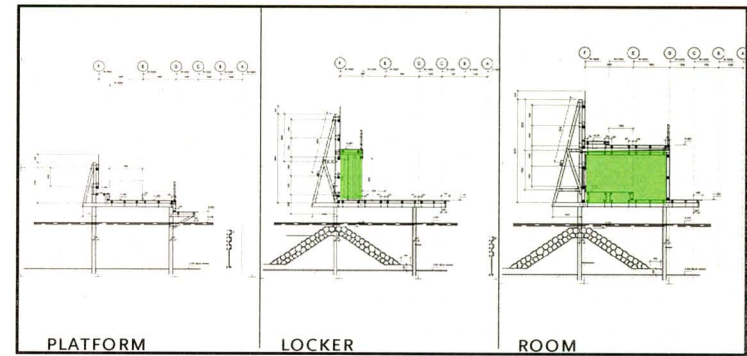


KASTRUP SEA BATH: VIEW IN CONTEXT

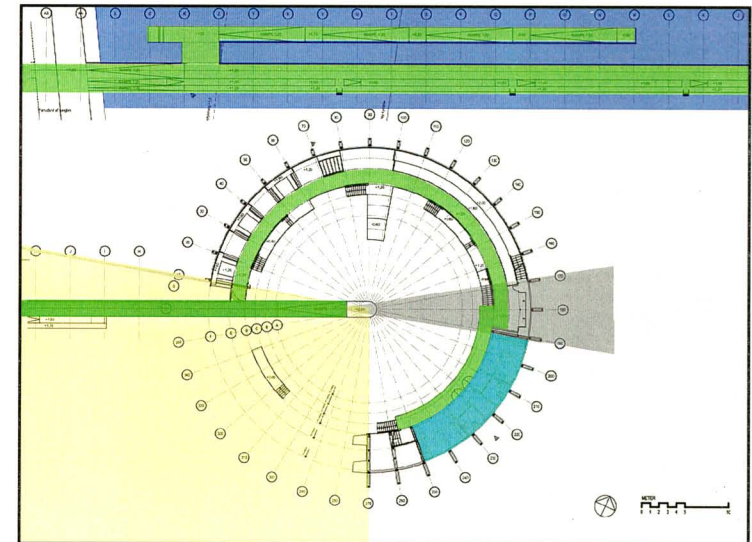
bath activities, thus further emphasizing that Bathing is not compulsory, you can simply be there to watch, to simply be amongst the community. The wall sidings are relaxed and separated more freely alongside areas where people are expected to gather in order to ease the overwhelming feeling that the high wall gives. A continuous bench running alongside the pier creates additional rest and leisure area. **(FIGURE. 10A & 10B)**

Taking a look at the material used for construction, Azobe timber was chosen due to this material's durability and strength in salt water—it is not attacked by shipworms and has the same lifetime as steel. The pattern noticed in previous case studies, alongside this one, of using wood or natural elements in general in public facilities seems to be encouraged as a medium of linking the built environment with its users.

The seasonal public farm project in New York aims at providing an eco-friendly message to the local community while still being capable of structuring fun spaces beneath its plane.



**FIGURE. 10A** DIAGRAM OF SPACES GENERATED BY VARIATION OF WALL THICKNESS



**FIGURE. 10B** DIAGRAM OF VISIBILITY AND PATHWAYS

## 6. PUBLIC FARM 1

LOCATION: NEW YORK, USA

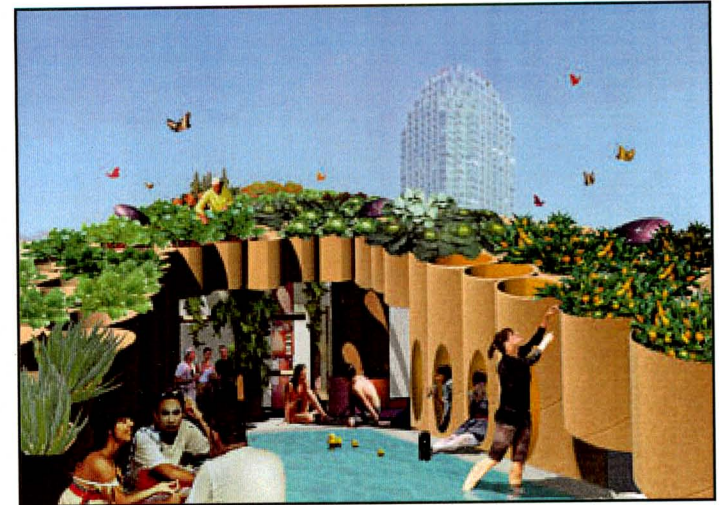
ARCHITECTS: WORK AC

*"This summer of 2008, exactly 40 years after '68, it is time for a new leisure revolution! One that creates a symbol of liberation, knowledge, power and fun for today's cities (...)" (Saieh: 2008)*

Public Farm 1 is a project designed by WORK Architecture Company for MOMA and P.S.1's Young Architects Program. The project is envisioned as a folded plane made from cardboard tubes, designed to hold planters for vegetables, herbs and fruit. While most of the tubes create an elevated canopy for shade, some tubes extend to the ground to become columns. Each column holds a different program, from seating to sound environments to a mobile phone charging column...

P.F.1's primary goal is to educate visitors on sustainable urban farming through architecture. Cardboard tubes that form the continuous surface create underneath multiple zones of activity including swings, fans, sound effects, innovative seating areas, and a pool at the centre.

It combines playful programs with educational ones, creating a sense of community around the shared experience of growing food. Bringing sustainable construction together with sustainable agriculture, P.F.1 is



PUBLIC FARM 1: CONCEPT RENDERING



PUBLIC FARM 1: ACTIVITY IN CONTEXT



built entirely of recyclable materials, is 100% solar-powered and utilizes rain collection for irrigation. The message of sustainable construction does not confine itself within the walls of the premises. Its identity is projected and protrudes over the walls of the schools like lifting a banner or symbol and reaching out to the community. (FIGURE. 11A & 11B)

*“Urban Farm’: a magical plot of rural delights inserted within the city grid that resonates with our generations’ preoccupations and hopes for a better and different future. In our post-industrial age of information, customization and individual expression, the most exciting and promising developments are no longer those of mass production but of local interventions.”*

*“They require a space which has a subtle balance of being defined and yet not too defined, so that any activity which is natural to the neighborhood at any given time can develop freely and yet has something to start from”. ( A pattern language, Christopher Alexander,p349).*

The case studies portray a versatility of ways to modify the built environment in order to allow grounds for interaction and fun spaces to occur; To attract, and ease the flow of people into spaces and keep reason for activities for people to enjoy. Overlaps of programs allow more cause for people to be in the same place at the same time; but providing structure for them needs to portray a deep understanding of interrelationships of programs, structural systems, and serviceability without segregating the use. Behind all the fun, such spaces start to build grounds for larger

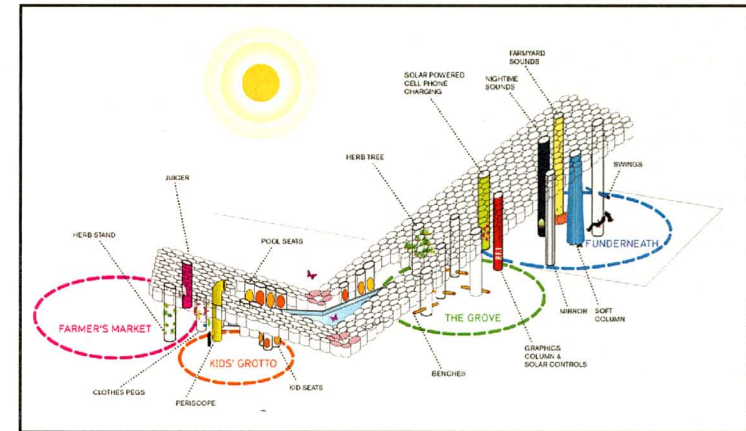


FIGURE. 11A DIAGRAM OF ACTIVITY GENERATED UNDER THE PLANE

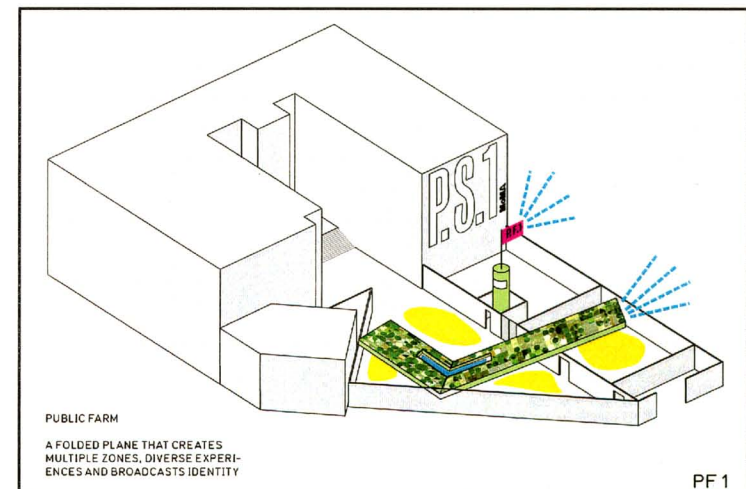


FIGURE. 11B DIAGRAM PROJECTING IDENTITY

foundations that advertise communal awareness and common cause.

The Urban Sofas, with their excuses for gathering, then provide a terrain for communities to initiate debate and experimentation within a stronger communal identity that grew in fun.

In order to provide enjoyable spaces for the community, it is crucial to understand how people relate to space and the built environment.



PUBLIC FARM 1: INSTALLATION IN CONTEXT

## B. SOFA USERS

### 1. SPATIAL NOTIONS

The Analysis of public use was studied under 2 main notions: The first deals with people's interaction with spaces while relating to specific local or foreign examples; The goal of such an exercise is to understand how people relate to public space; what attracts them, what encourages them to be active... Ideas extracted from such studies will help formulate spatial relationships between the built environment and the people using and flowing through it.

*"Every cylinder contains a different room for a specific purpose, and is treated as an independent building. One feels like they are walking in a city where only circle buildings exist".* (Yoshiharu Tsukamoto, Atelier Bow Wow, regarding the Hanamidori Cultural Center)

The Second scope of investigation comes from a pure documentation of two local public spaces that I have experienced and that produce a series of spatial relations, which, although not absolute, can form guidelines of approximate dimensions to relate to- proportions for the sofa.

## ACCESSIBILITY AND INTERACTIVITY

Before I engage in such an exercise, I find it important to clarify the use of urban and landscape examples. It is evident now that the Urban Sofa requires a constant interchangeability between open and built space, private and public. What is to be designed is not a building on a plot of land, nor is it an open square. The Urban Sofa engages several built environments with several open environments, all on one plot of land- like furniture in a living room. Therefore, it is crucial to look at public spaces in order to understand the interaction between built and not built; such an interaction that cannot be truthful without understanding people's interactivity within both.

## EMPTY SPACE

The blank canvas. It is public space in its purest of forms; completely open to everything, unrestricted—the vast empty square—the vacant land. It is so vast that you cannot find yourself in it. It is so empty that there is nothing to ground you in it. A vast empty space, a big room where “everything” can happen, but there is nothing to start from. Such spaces provide no shelter, and too little reason to be there; *“there isn't much there to inspire activity”* (New City Life, p 134), as used to describe Soren Kierkegaard Square in Copenhagen. **(FIGURE. 12A & 12B)**

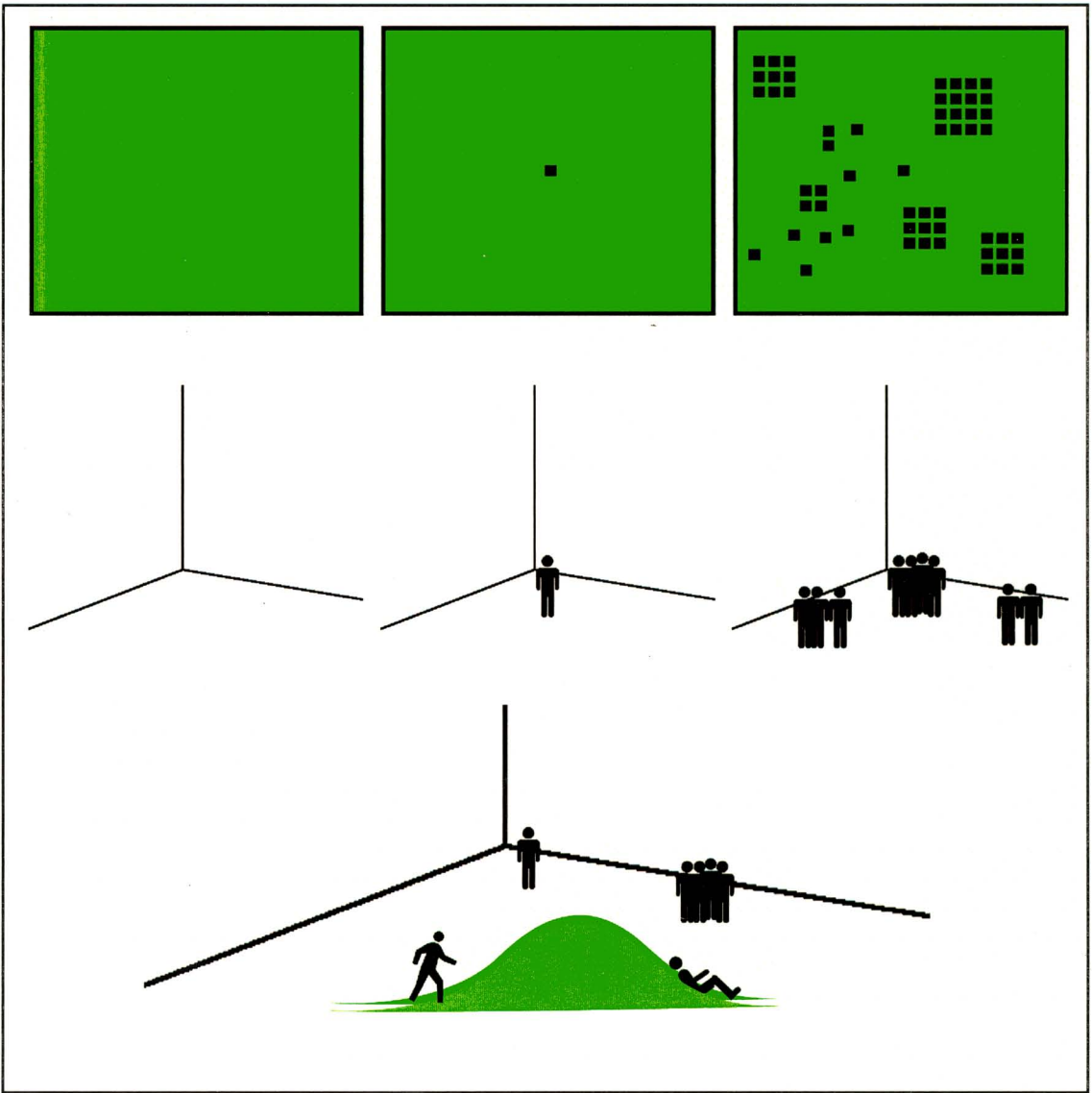


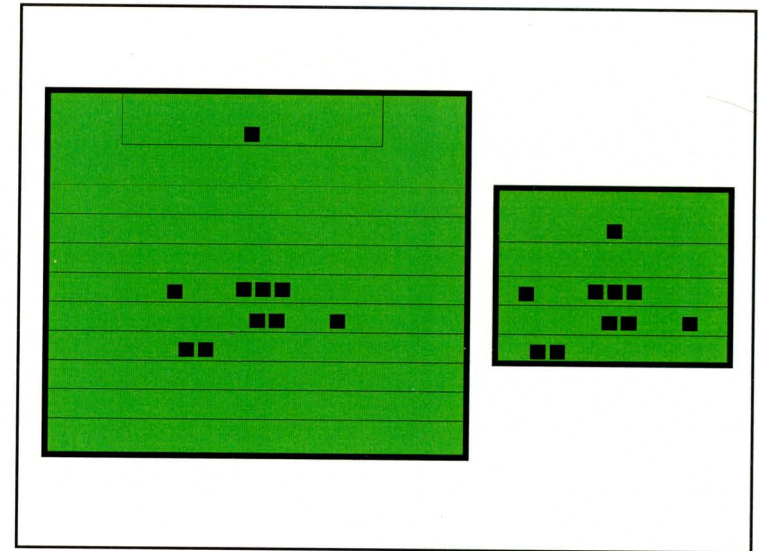
FIGURE. 12A DIAGRAM EMPTY SPACE

It is important for people not to feel that the space is dead or empty in order to get encouraged to be part of it. The issue of scale is to be addressed here. There is a big difference between a small theater with 20 people and a big theater with the same amount of people. In his book, *A Pattern Language*, Christopher Alexander estimates that if the number of people in a square is  $P$ , then the size estimated for the square to stay “lively” is between  $150P$  and  $300P$  square feet, or  $14P$  m<sup>2</sup> and  $28P$  m<sup>2</sup>. Of course, he does concede that this estimate is not 100% accurate, and that there are other factors that add to the liveliness of a place other than the people present; such as a performing band..., but it does go without question that proper sizing of spaces according to certain estimates and statistics, and the amount of people in them does add to the excitement and attraction to be amongst the crowd.

*“If architecture is landscape, then buildings are mountains”* (Guallart, Guallard Architects, Denia Mountain Project).

Such vacant land should be remolded, dug, and filled proportionally—people want mountains to enjoy the views, watch performances, and ride their skateboards on. They want obstacles to sit on, jump on, and nap on. They want maneuverable structures to lay their markets under, hoist the circus tent on, and shelter cafes under.

*“The big top is raised and suddenly everyone flocks to what was an empty site only yesterday”* (p152)



**FIGURE. 12B** DIAGRAM OF THEATRE PROPORTIONS

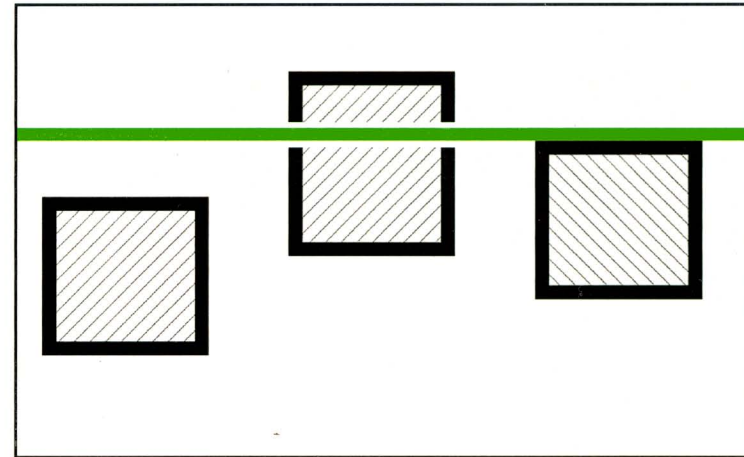
But beneath all that, performances need their stage and backstage; readers need their books, structures need their foundation and control rooms, and markets need their circulations cleared, and their storages nearby.

**ENCLOSED SPACE**  
THE LAUNCHING PADS

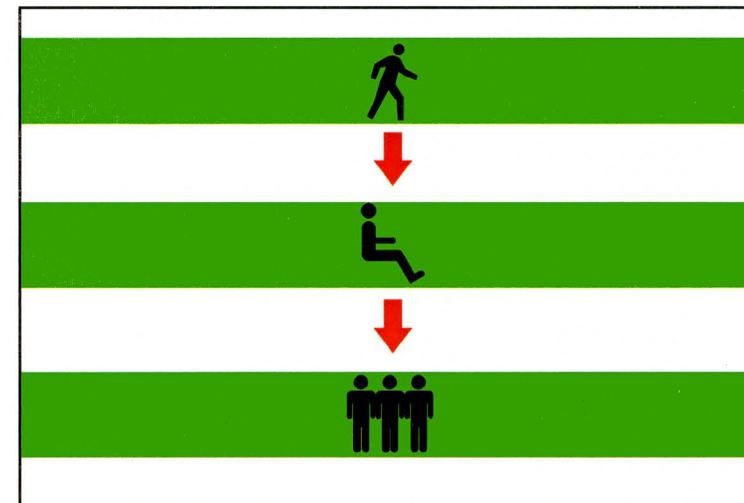
Enclosed Space refers to a programmed space; A place whose limits and functions are specified. People are quite hesitant to try something new; they fear new environments and are timid to try the novel. They always have the need to test their environments, and then gradually get accustomed to it. People don't want to plunge into a situation, which they don't know; and the degree of involvement created in an enclosed space is too intimate to allow a casual passing interest to build up progressively. For People to engage in an activity what is needed at first is for them to observe what is going on and try to define the parameters of the space.

**(FIGURE.13A & 13B)**

Curiosity happens first, then observation, then engagement. Hence a fully enclosed space is an island rarely visited, even less experienced. The distinct break between public flow and anchored program is too abrupt. Certain levels of permeability should exist; of which I identify three: curiosity, observation, engagement.



**FIGURE. 13A** TOUCHING PROGRAMMED SPACE:  
**LEFT:** DISTANT FROM PUBLIC FLOW (NO INTERACTION)  
**MIDDLE:** INTERSECTING PUBLIC FLOW (PROGRAM INTERRUPTED)  
**RIGHT:** TANGENT TO PUBLIC FLOW (CREATES UNDISTURBING CONNECTION TO THE PROGRAM)



**FIGURE. 13B** IDENTIFYING THE 3 LEVELS WHEN TANGENTIALLY CONNECTED

### Visual Permeability:

Within the new Permeable enclosure—the programmed space—lies a core that cannot be made public. Within the public space there remains a need to keep a part undefined, unrestricted, loose space. Even though you might be inside the program you still have to feel like you are part of the outside. Even though you are outside, you can still see or encounter the inside without interrupting it. In between the totally enclosed and the totally empty lies a gradation of spaces that differ in permeability: curiosity, observation, engagement.

#### CASE STUDY: HOUSE N

LOCATION: OITA, JAPAN

ARCHITECTS: SOU FUJIMOTO

The house itself is comprised of three shells of progressive sizes nested inside one another. The outermost shell covers the entire premises, creating a covered, semi-indoor garden. Second shell encloses a limited space inside the covered outdoor space. Third shell creates a smaller interior space.

#### (FIGURE. 14A & 14B)

*“One might say that an ideal architecture is an outdoor space that feels like the indoors and an indoor space that feels like the outdoors. In a nested structure, the inside is invariably the outside, and vice versa. My intention was to make an architecture that is not about space nor about form, but simply about expressing the riches of what are between houses and streets”.*

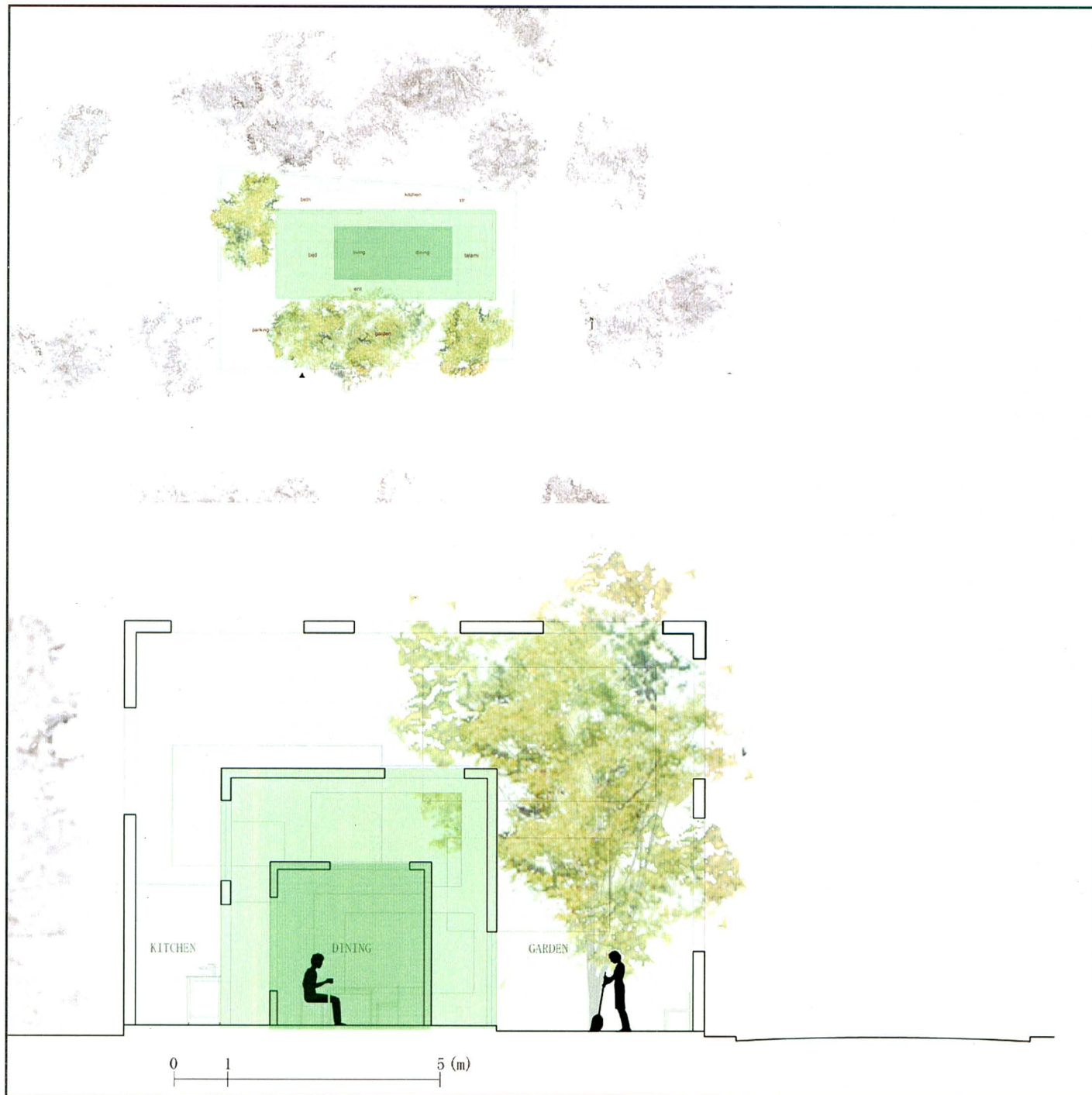


HOUSE N: IN CONTEXT



HOUSE N: INTERIOR VIEW





**FIGURE. 14A** DIAGRAMMING DEGREES OF PERMEABILITY

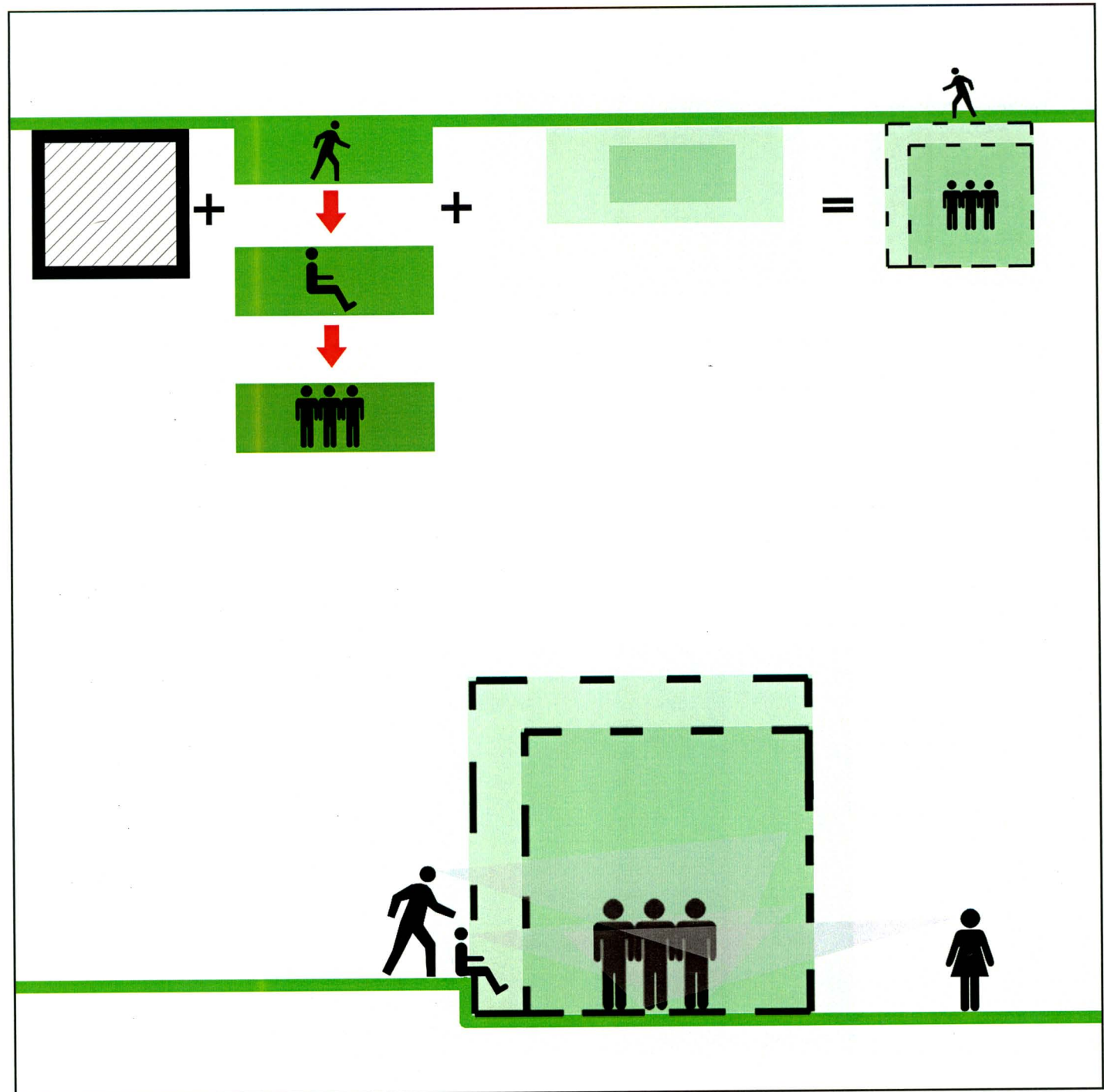


FIGURE. 14B JUXTAPOSING  
RATIONALE

**I want people to sit. I want people to stay. I want people to see. I want people to participate.** But I can't force them...

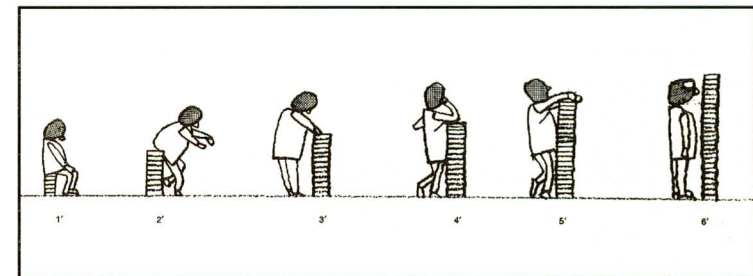
In his book *Creativity*, Osho mocks books entitled: You MUST relax. How can a person relax if it is a chore—a must. He would be constantly thinking about it, constantly analyzing if he is relaxed or not, constantly stressed about relaxing because it is a MUST.

The sofa provides no pressure; it provides comfort. People are there primarily to enjoy themselves.

If a person tells you to enter, sit, and participate, then you will hesitate. You will think. You will have doubts; and in the end you will not do it, or at least not enjoy doing it. If you are pushed onto the stage, you will not enjoy performing. Participation should come naturally. Sitting and staying should come naturally. Architecture should not force anything; of course the whole thesis has a cause, but I cannot force it. I can reinforce it. It just has to be there, well designed- and it will happen.

### **The Vertical Component:**

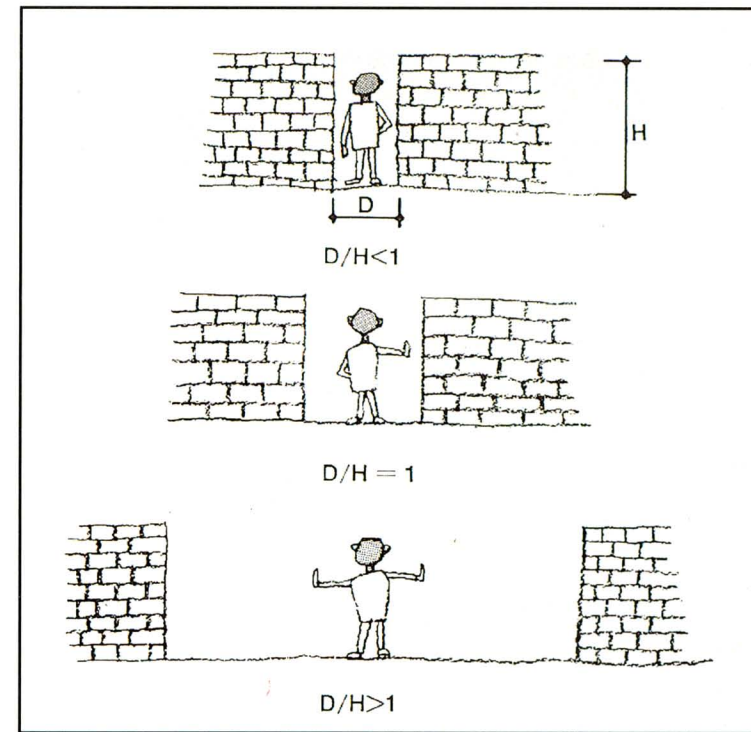
Ashihara Yoshinobu, in his book entitled *Exterior Design in Architecture*, diagrams the different wall heights as spatial dividers, “*Wall height is closely related to the height of the human eye*” (*Exterior design in Architecture*, Ashihara, p 81). As he states it:



VARYING WALL HEIGHTS  
(EXTERIOR DESIGN IN ARCHITECTURE, ASHIHARA)

- A wall of ~0.3m has almost no enclosing force, although it can serve as a divider of areas. It can evidently also provide a place to sit.
  - A wall of ~0.6m still provides a sense of visual connectivity, but still no enclosing force; as one is still able to jump over it, and overcome it. People may be inclined to half- lean against or sit on such a wall.
  - A ~0.9m wall doesn't vary the situation radically.
  - When the wall height reaches the height of ~1.2m, it conceals the greater part of one's body, generating a sense of personal security. The division of space is evident, although visual connectivity is still flowing.
  - At ~1.5m, the wall now has a great enclosing force, concealing, perhaps, the whole body except one's head. I add; at that point some effort needs to be done in order to maintain visual connectivity- curiosity.
  - Beyond ~1.8m, It can conceal one's body almost completely, and so acquires a strong enclosing force in most cases
- Thus, a feeling of enclosure is obtained when a wall exceeds a man's height and breaks visual connectivity of the floor.

Ashihara's diagramming evidently relies on a perfect horizontality of the ground plane, or on the perfect verticality of the vertical wall. His analysis revolves around a very democratic basis of abstract diagramming. What if in the ground plane exists a difference in levels? What if the vertical separator is actually slanted? Based on the same principle of enclosure and visual connectivity, we can generate relationships between one space and the other that are no longer equal; then permeability can be filtered differently inside to outside, or outside to inside. **(FIGURE. 15)**



VARYING WALL HEIGHTS  
(EXTERIOR DESIGN IN ARCHITECTURE, ASHIHARA)

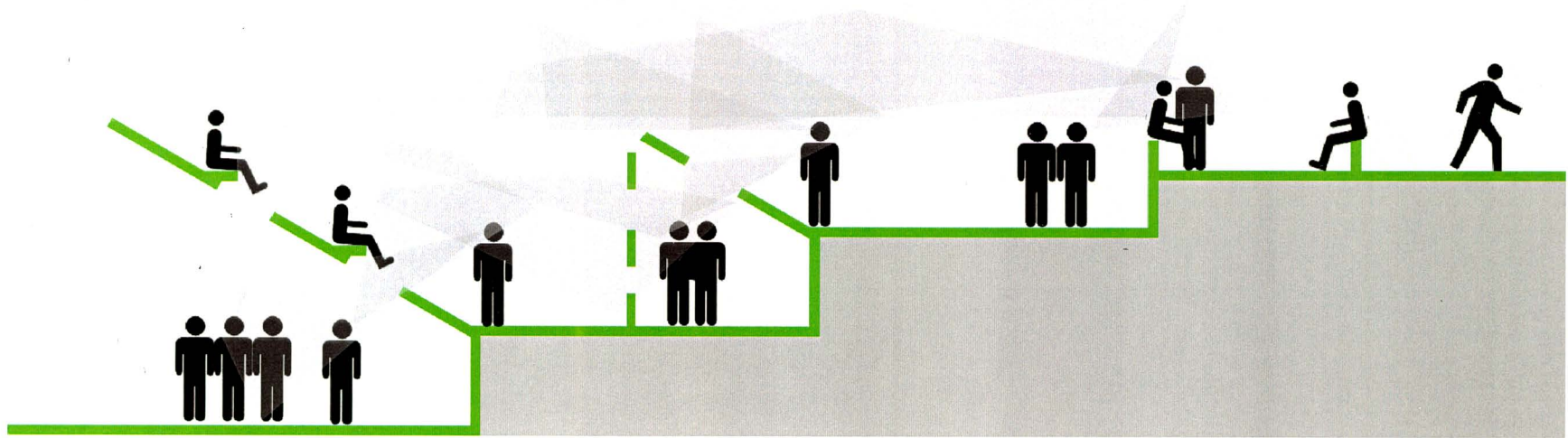


FIGURE. 15 MIXTURE OF ALL THE INGREDIENTS

Moreover, visual permeability also relies on the separator's degree of transparency. The materiality of the wall can redefine these notions completely: for example a certain mesh can allow you to see when you are close to the wall, but seem totally opaque when you are far from it.

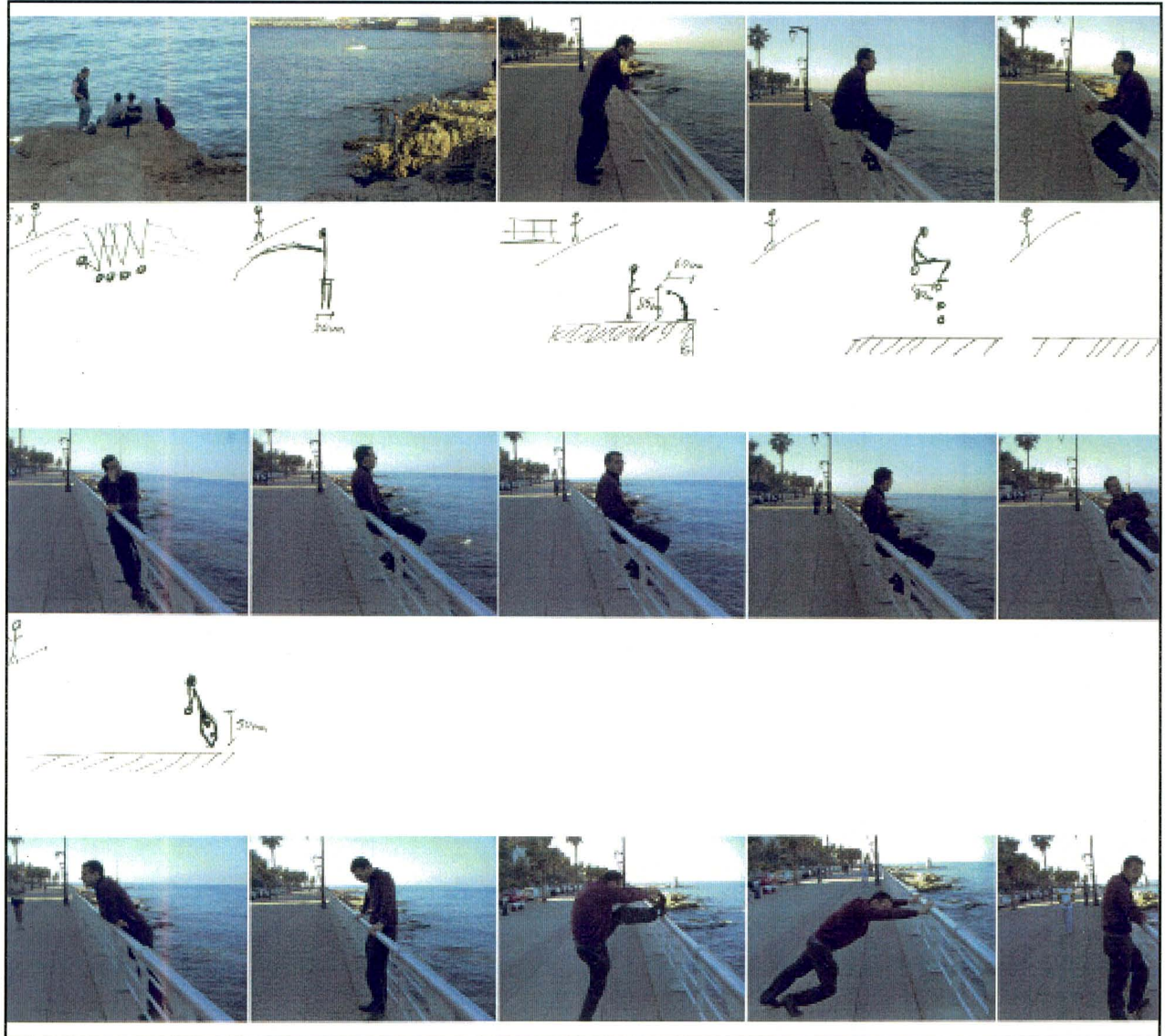


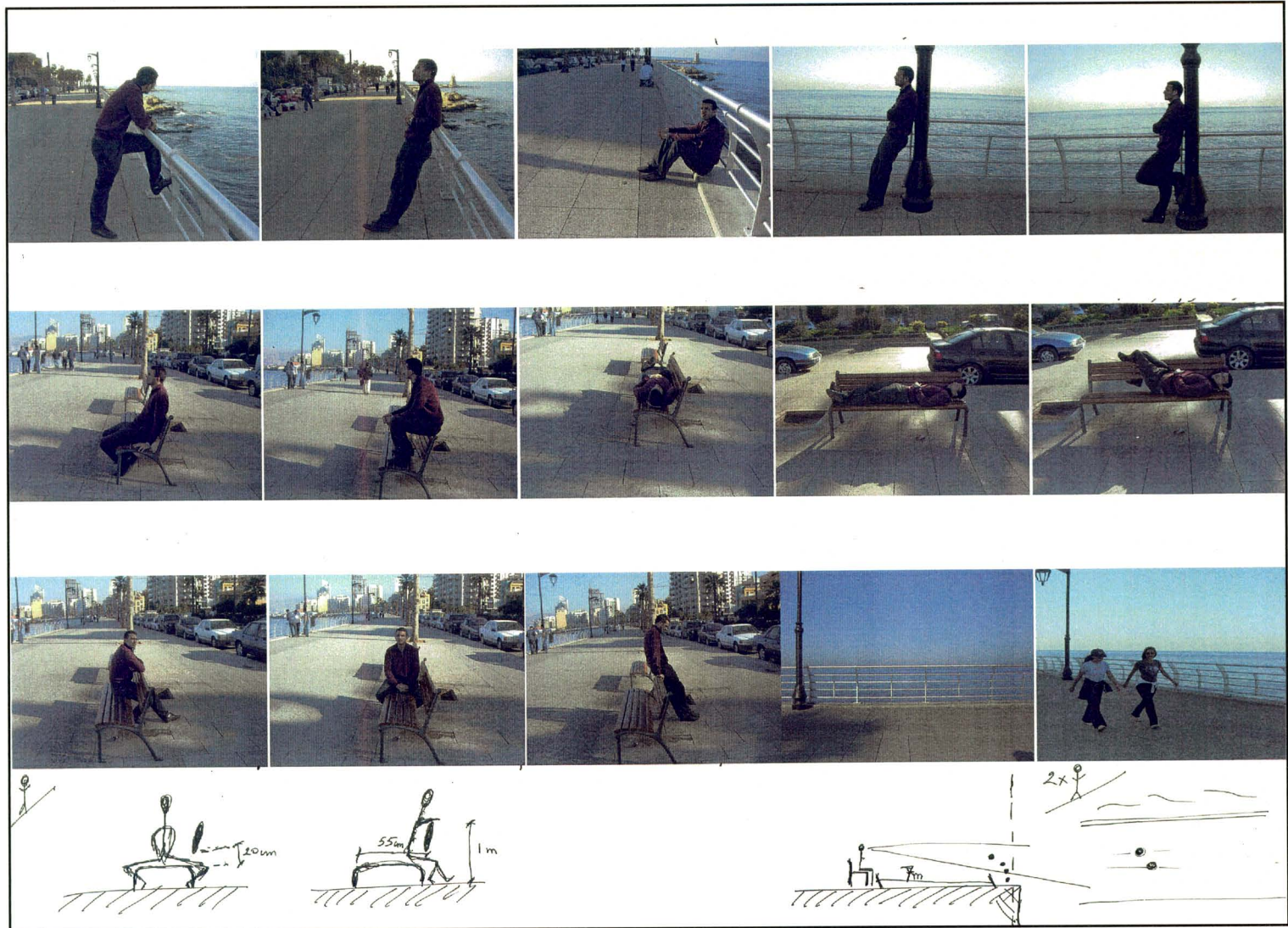
PERMEABILITY THROUGH MATERIAL

## 2. APPROXIMATING DIMENSIONS THROUGH LOCAL DOCUMENTATION

The second scope of investigation was a documentation of West Hall, Aub – and Ain El Mreyse Cornich, in order to understand dimensions, activity, and interactivity between people or their environment. This documentation proves essential to concretize theories acquired in the previous exercise.

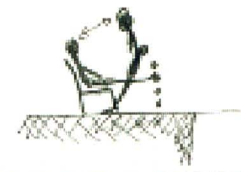
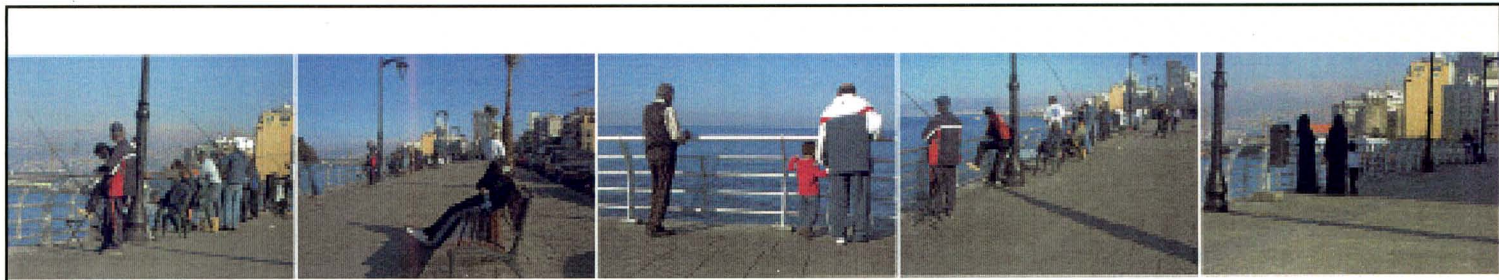












PE  
*table* *table*

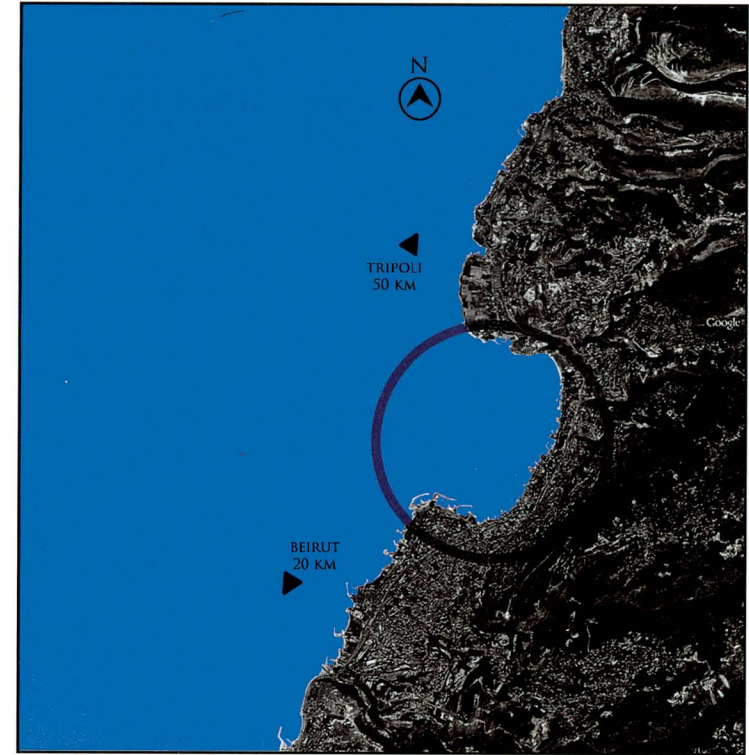




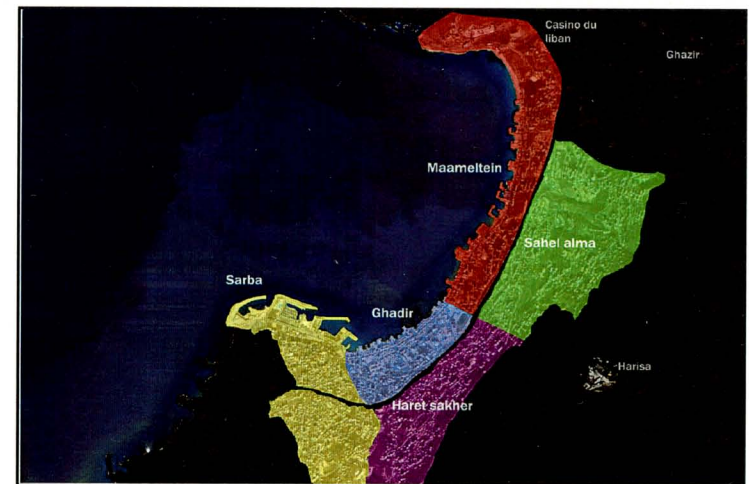
## APPLYING THE NOTIONS

### A. THE CITY –JOUNIEH

Jounieh is a coastal city located approximately 20km North of the Capital Beirut, and approximately 50km South of Tripoli, in the province of Keserwan. Along the whole coastal edge, it is directly recognizable by its natural, 3km wide, crevice inland, making of it a natural port within which ships could take cover from the Mediterranean storms. The actual nomenclature of Jounieh comes from the word Joun, meaning small Gulf. To the East, the city reaches the base of the mountain edge where 3 of its 5 districts lie: Haret Sakher, Sarba, and Ghadir- mostly residential in nature, are separated from the coastal front of Jounieh city and Maameltein by the main highway.



GENERAL LOCATION



THE FIVE DISTRICTS OF JOUNIEH

## 1. A FRAIL MEMORY

### INTERVIEW: MEMORY

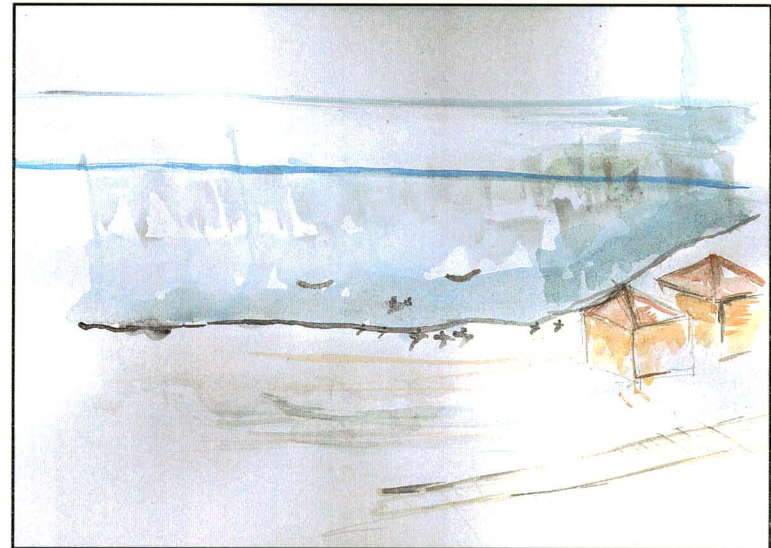
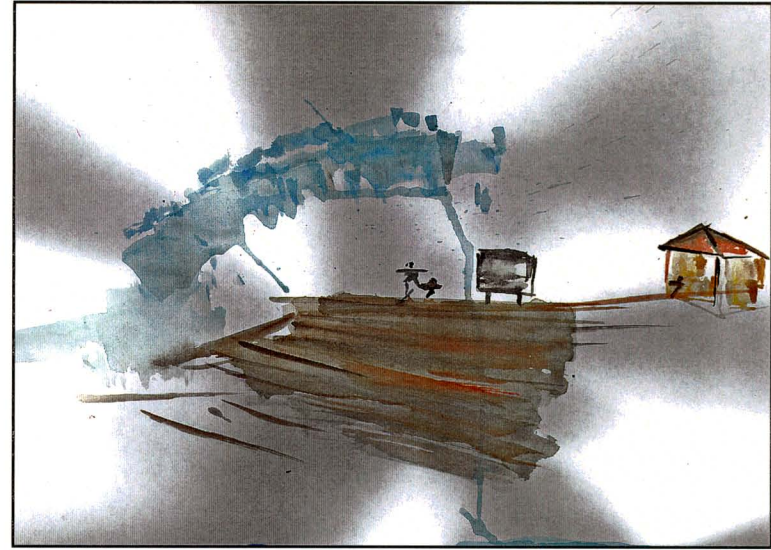
MARISE SABBOUH BOUERI

Born 1960, Lived in Maameltein until she got married.

#### What do you remember of Jounieh?

*"Oh Jounieh- there was nothing, nothing at all. There were these houses; the ones with the red tiled roof, only those and the open beach ALL the way across the whole coastline- No Green Beach, No Blue Beach... none of those things; only the beach and orchards of trees and flowers... I remember once, I was seven, I was coming back from school by bus, from St. Famille in Jounieh, and there was a storm. The waves were so big that they were going over the bus onto the other side of the street. The bus driver had to stop. My mother came walking along the train tracks, and picked me up. The neighbors knew me, knew I was her daughter, so they must have called her. We went walking all the way back along the tracks. We could swim anywhere.*

*We had to sell the house after our parents passed away. None of us (brothers and sister) could live there anymore; with all the hotels and all "that". There is nothing left now; no view, no beach, not even neighbors."*

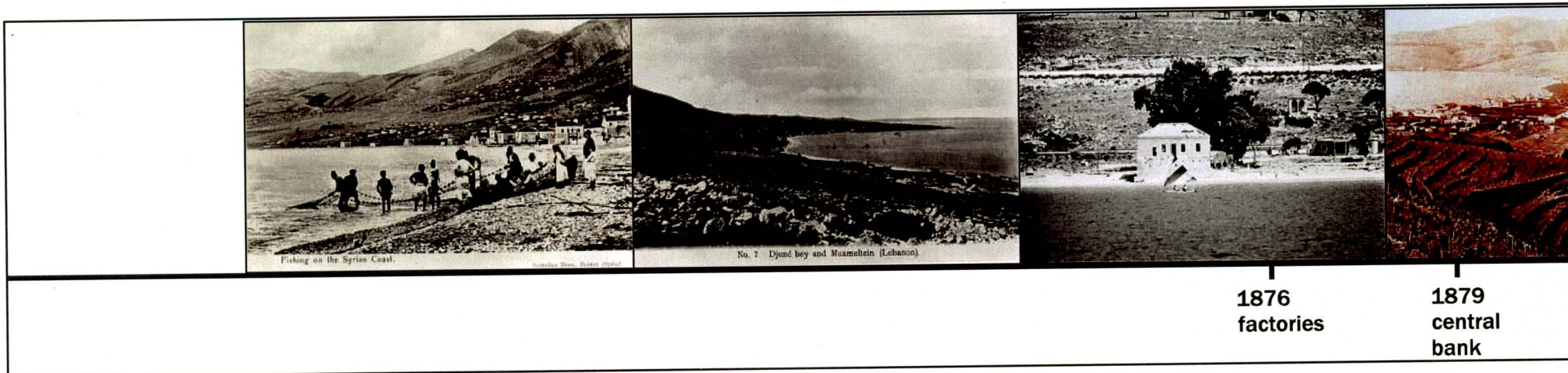


VISIONS

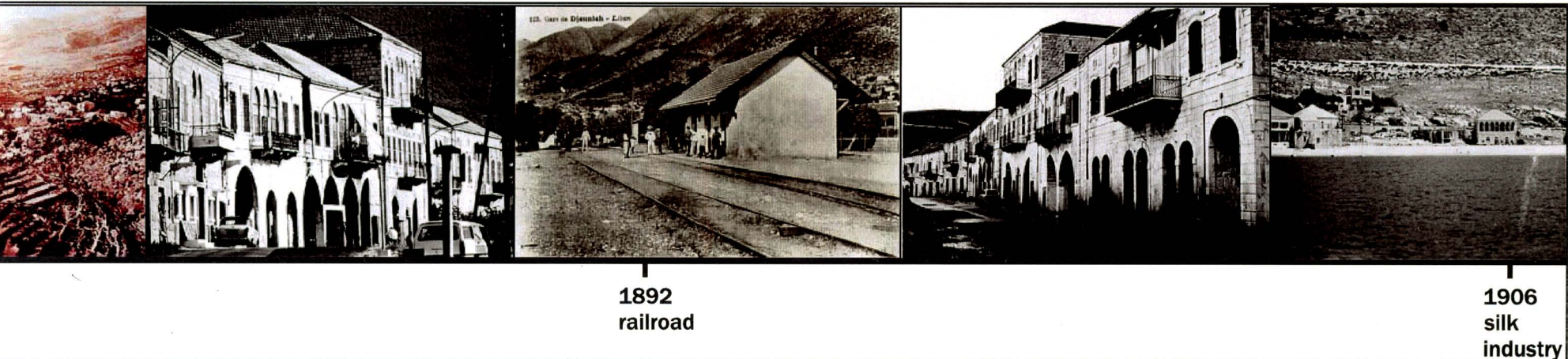
## 2. NOSTALGIA

### A brief history (1876 – 2009): Demographical change, Urban Growth

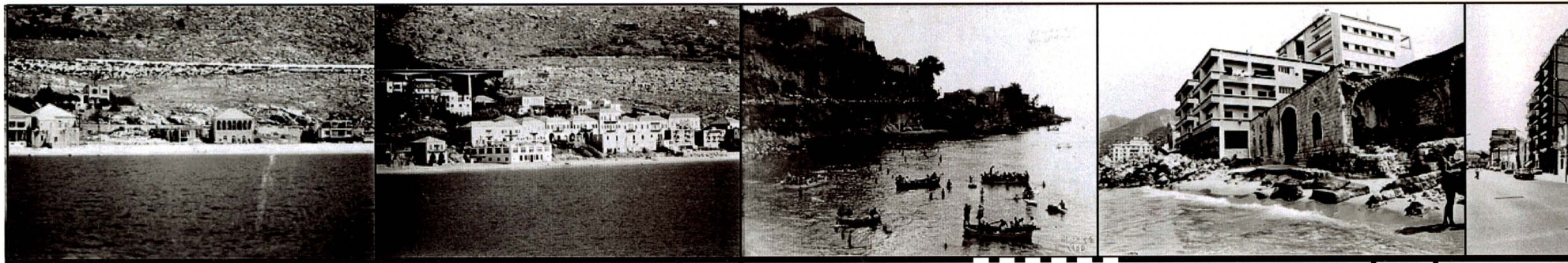
- In 1876; the number of shops exceeded 300, five silk factories, three rest houses, a mill, three juice factories, an artificial ice factory, a bank, and a group of small sailboat construction sites.
- In 1879, the Central Bank was established.



- In 1892, Jounieh was connected to Beirut via a railroad that had stations between the two locations, three of which in Jounieh and its environs: Sarba, Jounieh, and Maameltein at the end of the line, which facilitated the transportation of goods and passengers from and to the Governorate of Beirut.
- In 1906, population 2,400, a large silk industry of 10,000 cocoons



- In 1913 economic stagnation; so several of its inhabitants were forced to move to the capital or to immigrate. The only active sectors in that period were schools, small crafts, and planting of citrus trees, sugar cane, and vegetables.
- In 1914 after France and the Maronite Patriarchy supported the opening the port for commercial ships, which became the official port of Mount Lebanon.
- First World War weakened by famine and Jounieh lost most of its expertise
- In 1959 President Shehab used a number of experts and engineers headed by the French engineer Ekochar. The talk became of “Monte Carlo of the East” and Jounieh stood out as a bride of the Lebanese coast.
- In 1960, Fouad Shehab Stadium was built



**1906**  
silk  
industry

**1913**  
outward  
migration

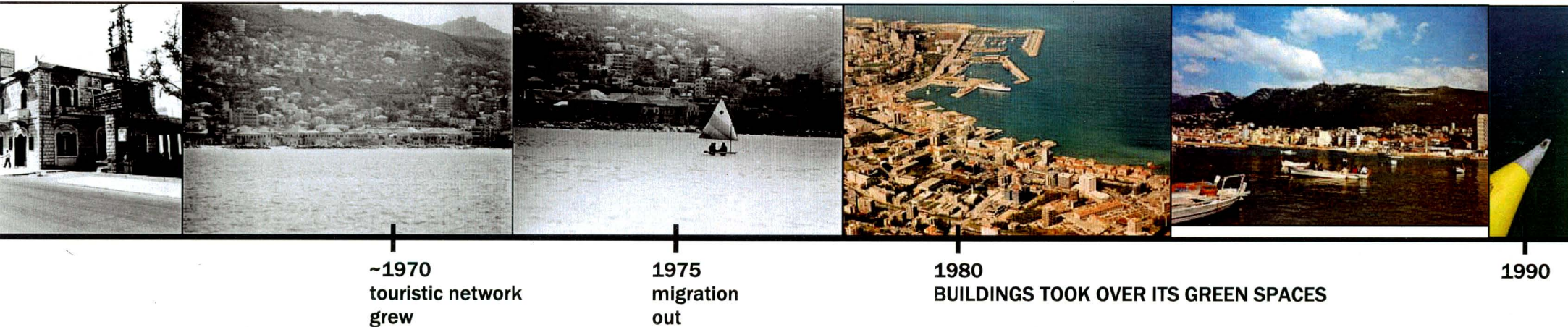
**1914**  
port  
jounieh

**1959**  
monte  
carlo  
of the  
east

**1960**  
Fouad  
shehab  
stadium

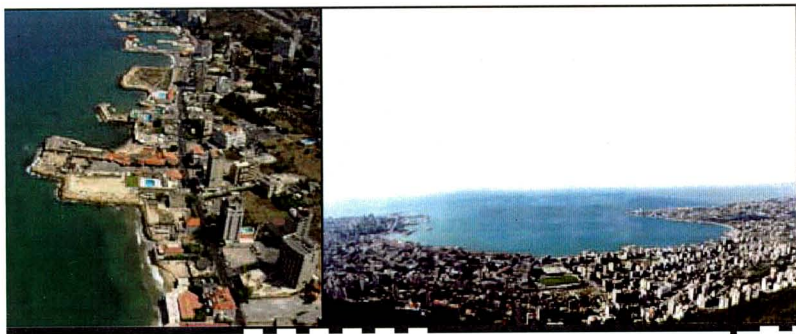


- In the beginning of the seventies, Jounieh was transformed to a major and complete tourist center with the tourist network around it and on its edges including: Casino du Liban, the Cable cars, the Harisa Church, the caverns in Jeita, restaurants, hotels, nightclubs, and the port.
- With the war of 1975, and the division of Beirut into East and West parts and the escalation of the violence, many people fled out to safe areas
- From 1980 to 1990, Jounieh witnessed a massive influx of migration as a large number of the Beirut traders moved to its markets. Buildings took over its green spaces, and the tourist complexes took over its shores. So its features changed randomly
- In 1990, when fighting stopped, Jounieh was no longer a small city where the humming of water is heard, and houses with red-tiled roofs are surrounded by dreamy orchards but it became a coastal city crowded with people in forests of cement without a beach for the waves to spread.



- Today, around 18 thousand voters live in Jounieh. Those who live in its towns and suburbs exceed 100,000.

*“By the middle of the century, Jounieh will become a suburb of Beirut in a coastal line that forms one city that expands the length of the coastal road at a time when the inhabitants of Lebanon will reach six million around the year 2025”.* (municipality of Jounieh website)



**2008  
MORE  
THAN  
100,000  
RESIDENTS**

**2025  
FURTHER  
INCREASE  
IN  
DENSITY  
EXPECTED**

Analysing demographic data (Statistics provided by the Municipality of Jounieh <http://www.jounieh.gov.lb>)

In 1906 Population 2,400 residents

In 1914 Population 3972 residents

In 1932 Population 2572 residents

In 2008 Population over 100,000 residents

**(FIGURE. 16)**

Within a period of ~76 years, between 1932 and 2008, the Municipality has witnessed a fastidious population increase of more than 100,000 new residents. The entire built environment transformed, and Jounieh's parameters expanded with office buildings and commercial centres, factories, and shops overwhelming its central district. What was the main reason for the name Jounieh, the small gulf, is no longer available to its residents. The public beach that used to spread all along the coast line has been privatized, land filled, and blocked off from the general public with a wall of around 50 private beach resorts, most of which were built in the past 20 years. . The "shire" area, the natural swimming pool and harbour with its shallow waters, has been land filled to accommodate Jounieh Port in 1968.

With such growth and even more expectancy of expansion, the city proves a greater need for communal ground as its natural features slowly start to decay. The injection of the Urban Sofa in such an environment aims at three objectives:

- 1- Anchor the city's growing parameters with its coastal front.
- 2- Create a communal spirit through public services for a growing population.
- 3- Create public awareness of the environmental and morphological metamorphosis produced by the increase in densification of the built environment.

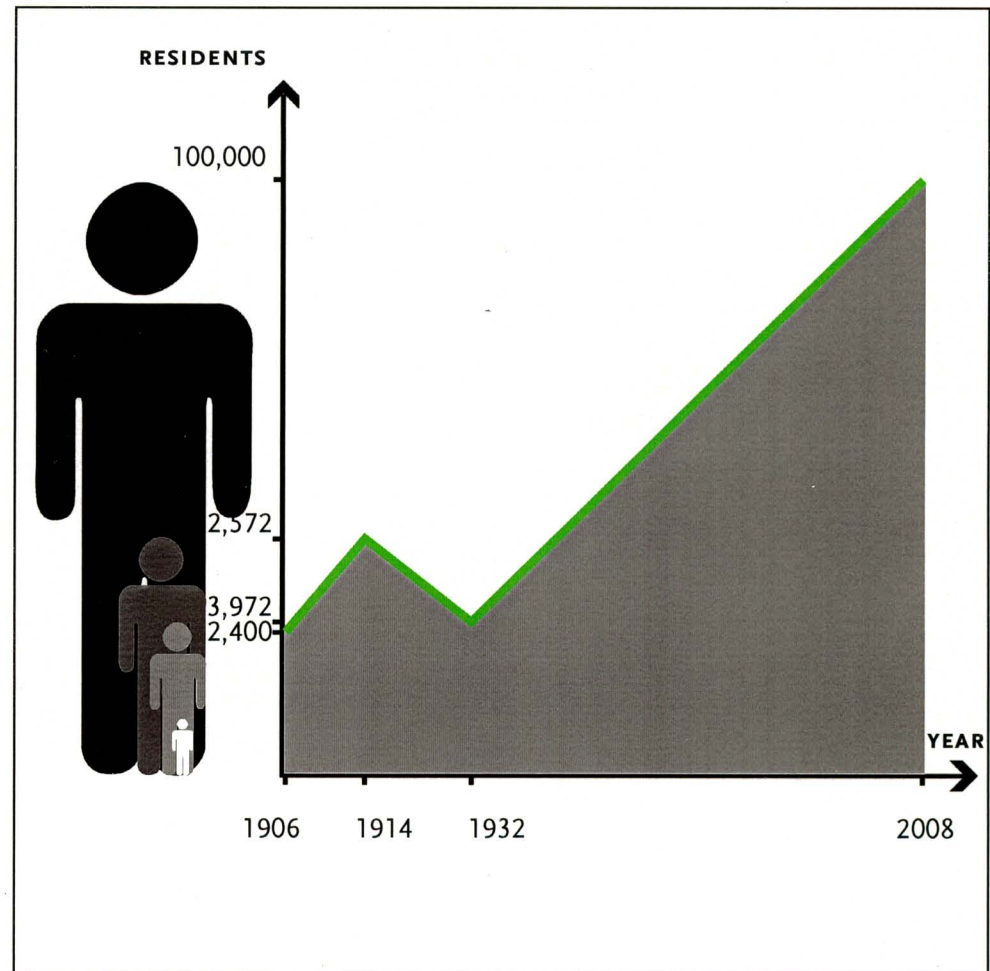


FIGURE. 16 DEMOGRAPHY CHART

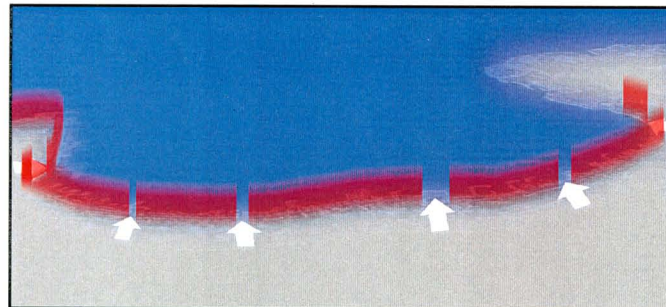
## B. THE URBAN CONCEPT

The building of the city started with the sea; its growth and development was initiated due to its coastal morphology as a natural port; the privatization of its beaches is the leading crime of densification of the city; hence, I find it imperative that the era of a new typology, one of public, environmental, and social attributes commences on the coastline.

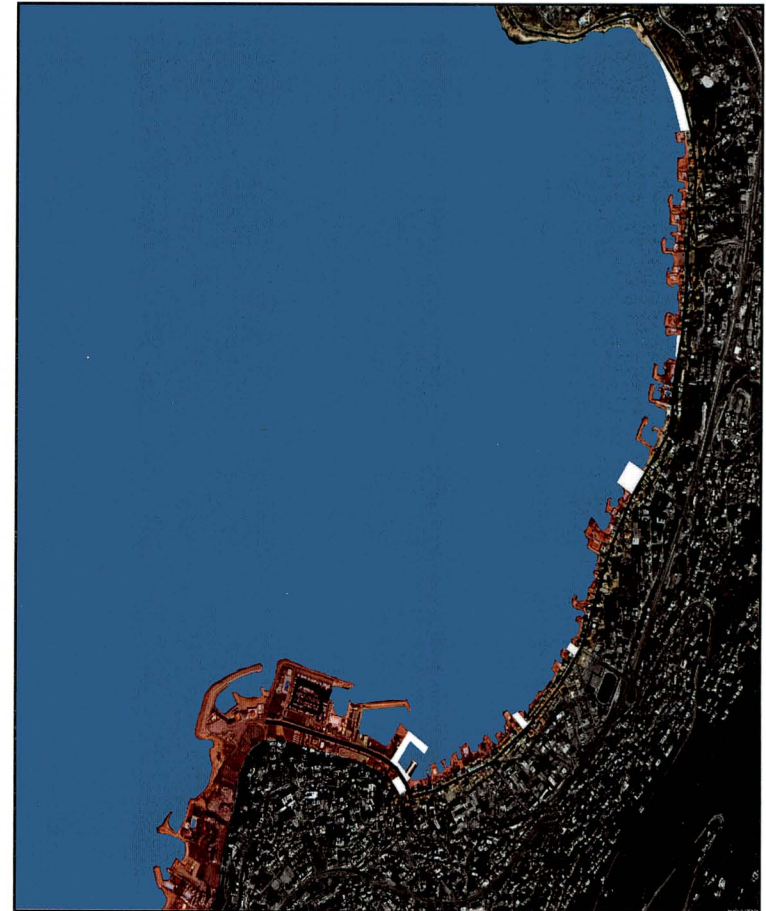
### LOCATING THE WINDOWS

Although the project will be applied, at least for now, on a single plot of land, I envision a series of sites that will form a necklace of sofas along the entire coast, allowing public domain to pierce through the wall of privatization and reopen the shores.

On the other hand, the initiating plot of land has to be the most fertile, where the seed planted is to be the most effective; at the heart of the city.



THE CONCEPT



THE WINDOW

## C. ZOOM IN ON THE SITE

### 1. IT WAS THERE

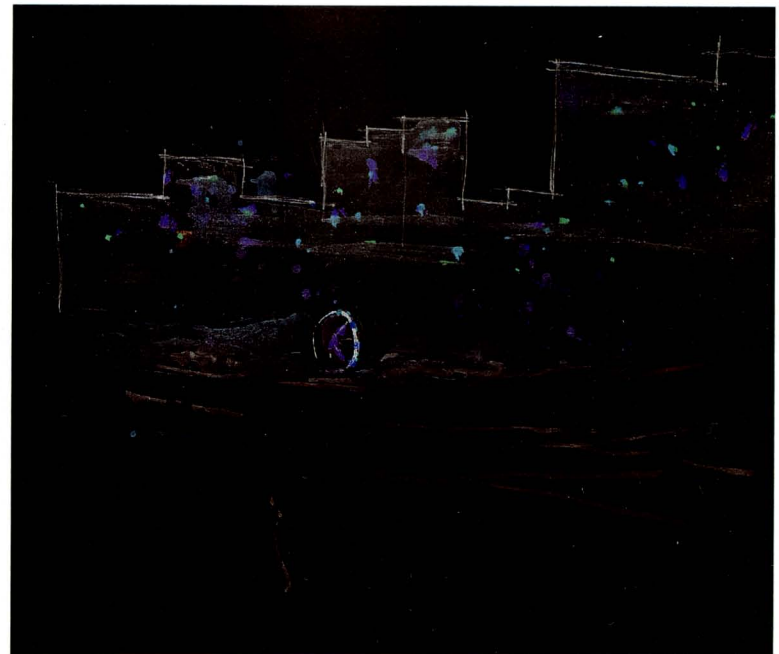
#### CHOICE SITE: MADINET EL MALEHE

It was there.

I think I was about 8 years old then. No it wasn't my birthday. It was just a regular day, perhaps a Saturday because we all went there.

I was out on the balcony of my house. I would stare at the shimmering light far beyond the ocean, right there. It was almost night; the city already lit up. It was there, right there. Round, Green and yellow circling, hypnotizing—like a flare of firework that never reached the ground. Around it, the city stood still, looking down, observing. It was, right there; in between the cold railings, right across to the other side of the sea, carved within those rocks—right there. My father took a picture then carried me until we reached the car. We drove aside an old endless row of old houses; shops and carts, people and lines of sidewalk until the car stopped. All six of us were in the car, and we all stepped out. I looked up and saw it; The biggest machine of steel and light I had ever seen. I remember- it made me feel so small! It kept going round and round while I kept staring. I don't remember the place; I only remember its bright lights and that there were numerous faces. It slowly turned and lifted us up, way up, beyond the people, the noise; beyond the cars, and the small houses.

From up there we could see it all; the whole city beneath our feet.



**LOCATION: SHEER AREA, FACING PORT JOUNIEH**

The actual site is only referenced to as DP - Public Domain. The area was land filled in 1968 for the construction of Port Jounieh. No FAR or building law exists as the land is classified under Marinal Properties.

**2. CHOICE SITE –DOCUMENTATION**

The choice of this site out of the several all others was for five major reasons. The first is that it provides the largest view of the bay.

The second is that it is located in the heart of the city; in order to reach it, it is obligatory that you go through the city. The Fouad Shehab site, for example, can be directly accessed and exited through the highway, without creating any link with the city.

Thirdly, located at the corner of the coastline, it allows a two directional view, one of the Mediterranean, the other one looking back at the city.

The fourth reason is that the site itself provokes a series of dualities:

- On one hand you have the monumental natural rocks drop, while to the North the land filled, artificial ground.
- The relationship Old stone house on top of the hill – new port and ex-commercial hub.

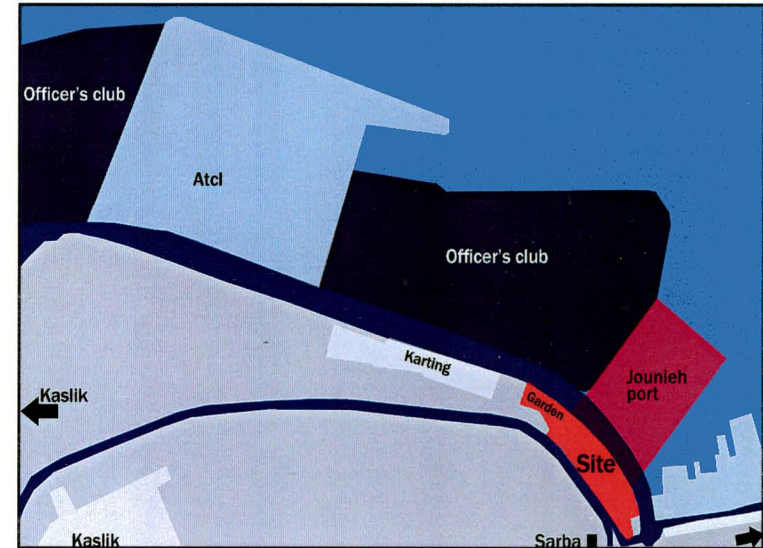


DIAGRAM SHOWING SITE LOCATION AND SURROUNDING

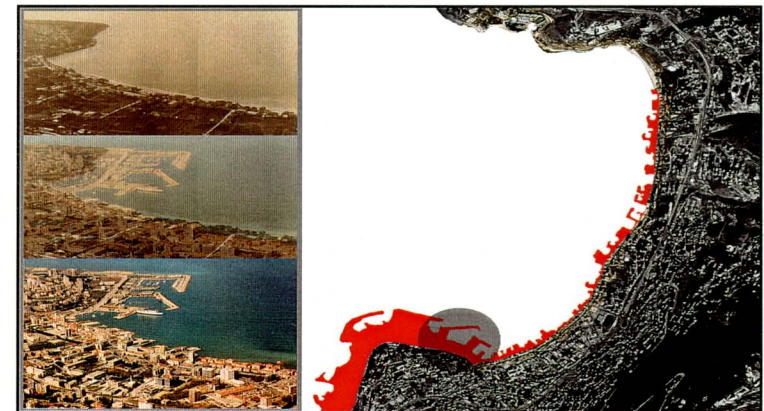


DIAGRAM SHOWING THE LANDFILLED  
AREAS

The fifth being a strong connection of identifying the site as a place of leisure, beginning with the memory of the Amusement park that was dismantled in 1996, and the current initiative of leisure activities nearby such as the karting ring, the small communal garden, or the sidewalks used by joggers because of the lack of traffic.

- The sixth is the natural topography of the site that provides varying heights constant visibility of the sea.

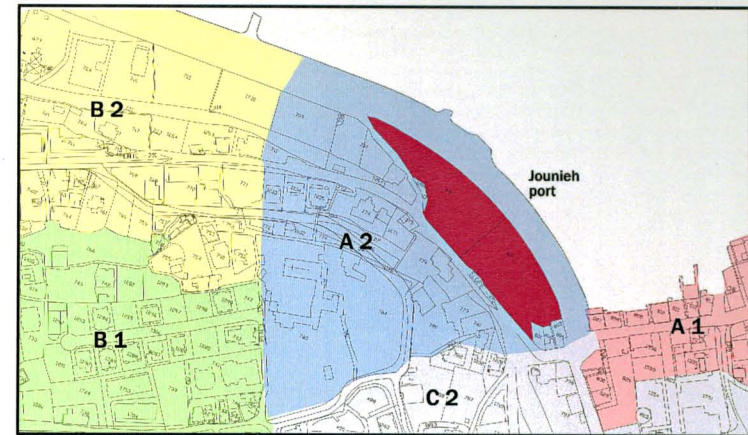
### 3. THE VISION: PROJECT ...

#### D. QUALITATIVE LOGIC

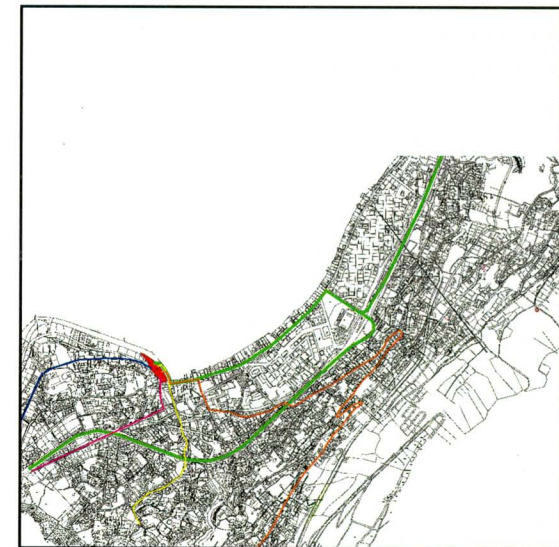
##### 1. PROGRAM

*“new educational institutions would break apart this pyramid. Their purpose must be to facilitate access to the learner: to allow him to look into the window of the control room or the parliament, if he cannot get in the door. Moreover, such new institutions should be channels to which the learner would have access- without credentials or pedigree- to public spaces in which peers and elders outside his immediate horizon now become available” (Ivan Illich, De-schooling society, p101)*

The program revolves around 3 objectives:

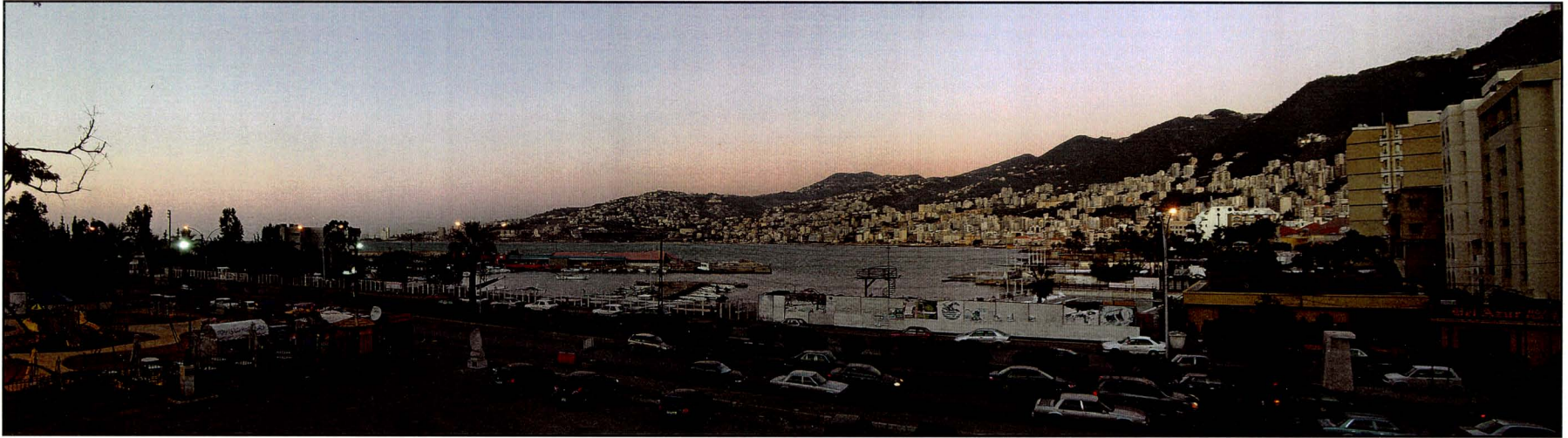


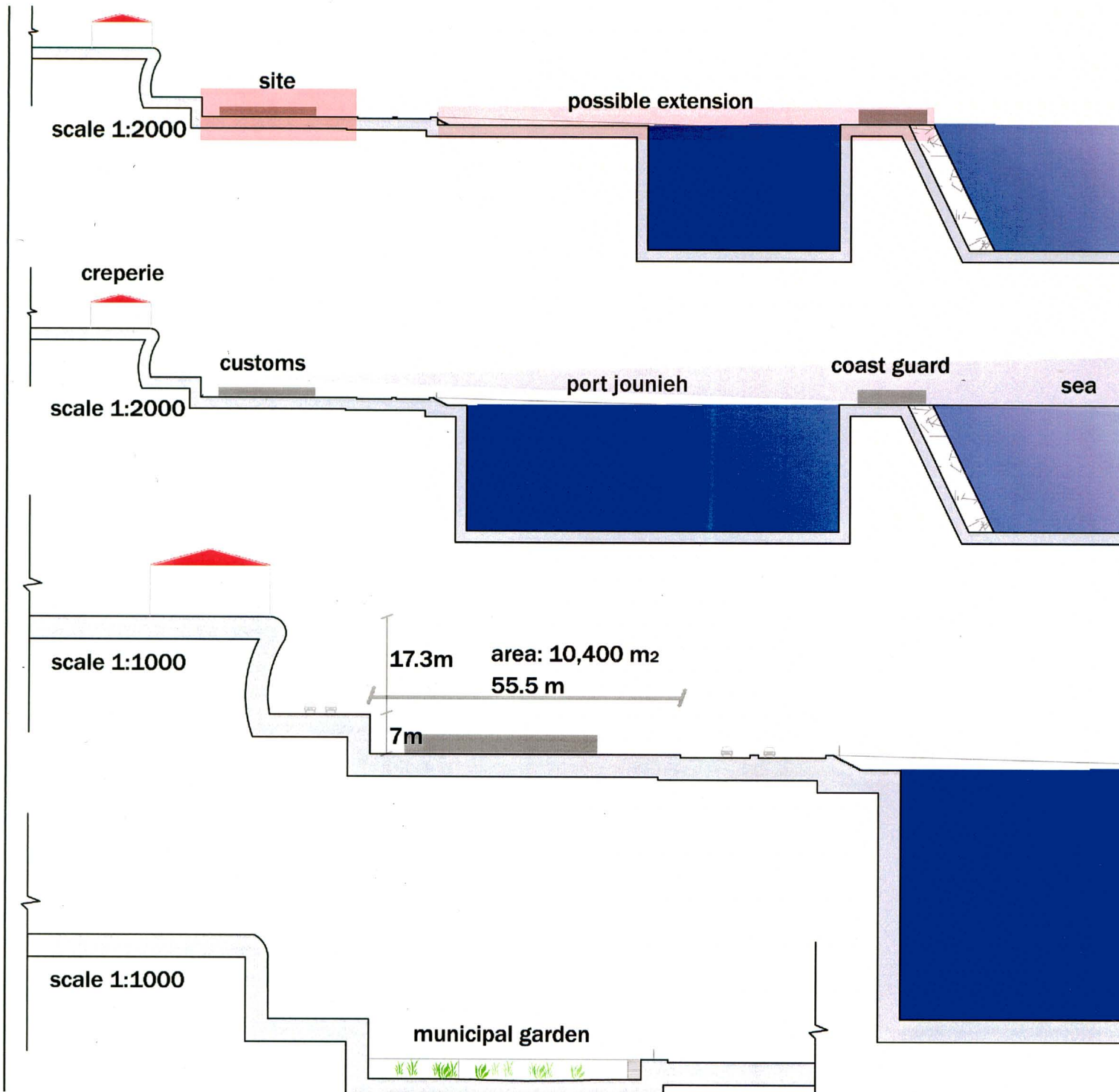
BUILDING LAW ZONES

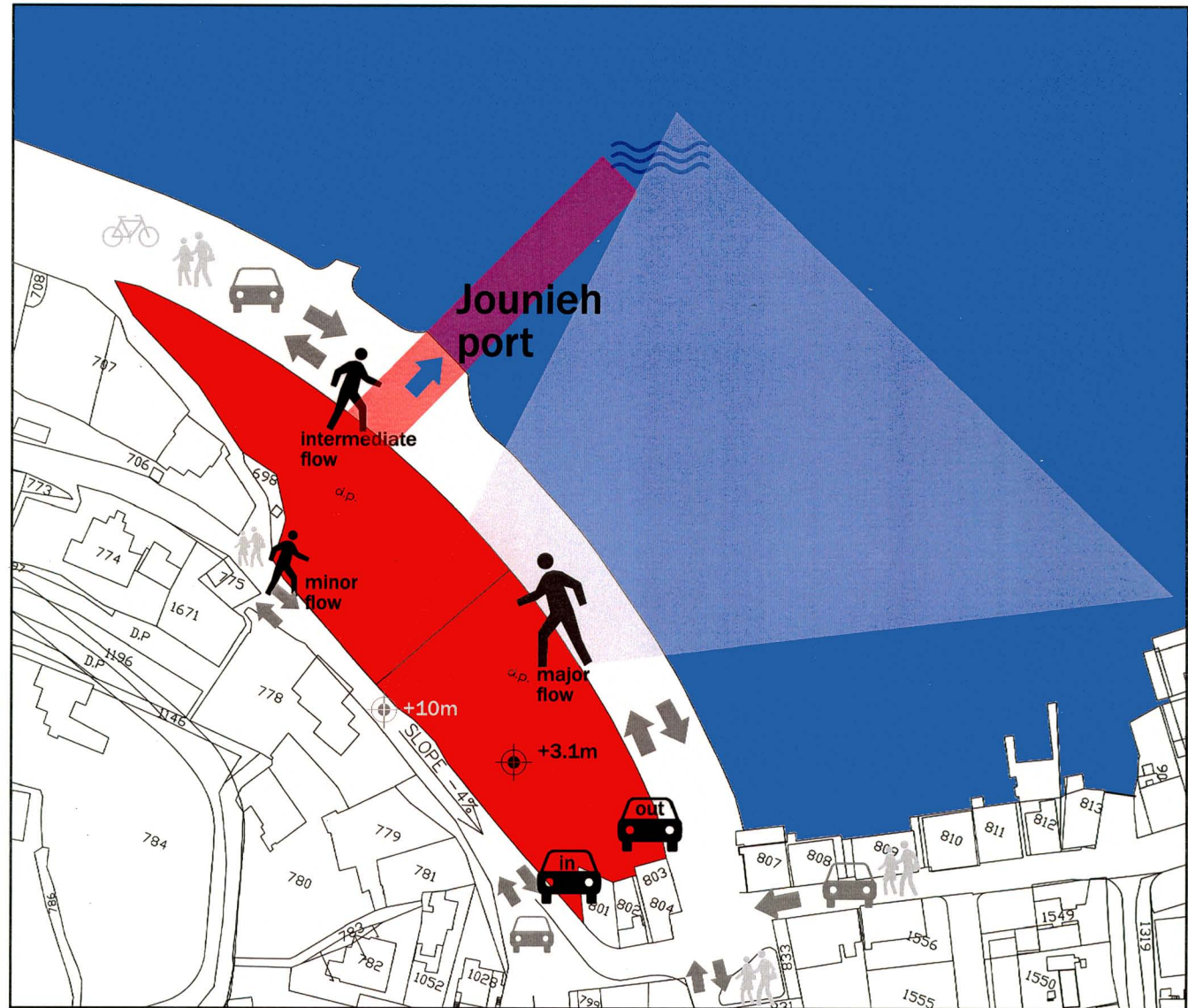


REDIRECTING CIRCULATION INTO THE CITY









The first aims to attract people to the site by providing basic leisure activities for them to enjoy their environment and their city:

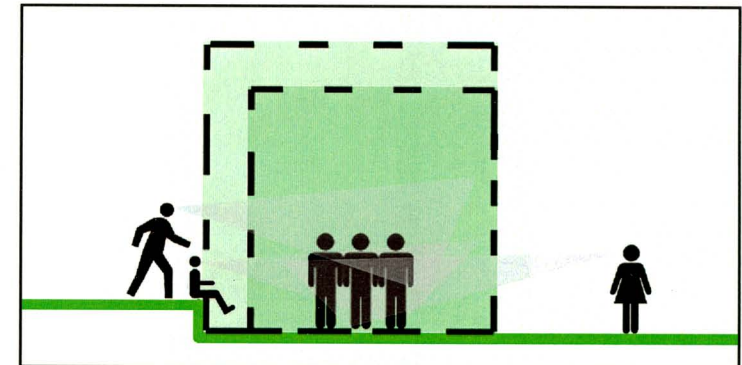
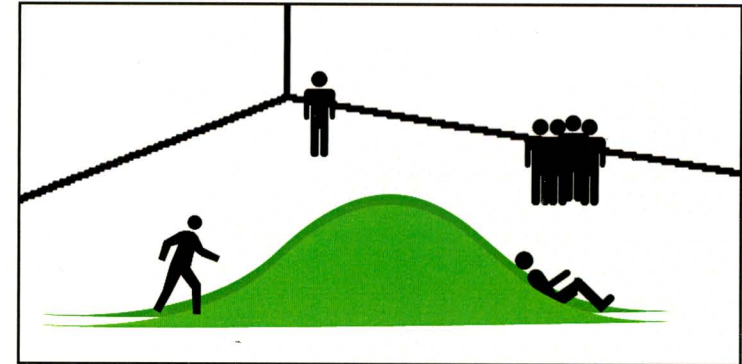
- The Outdoor theater
- The Vegetable and fruit market
- Cafes and Restaurants
- The Harbour Bath
- The Observation Tower

The second type provides a more intimate relationship between users; places where activities revolve around the notions of Communicating, Cooperating, and Caring:

- Growing Library
- Public Reading Rooms
- Art Rooms (Ceramics, Painting, Cooking Classes, Music rooms)
- Movement Rooms (Martial Arts, Dancing)
- Indoor Theater

The third type is the launching pad for revisiting the built Environment; the laboratory of the city; The Sustainability Research Center funded by the programs of first and second type:

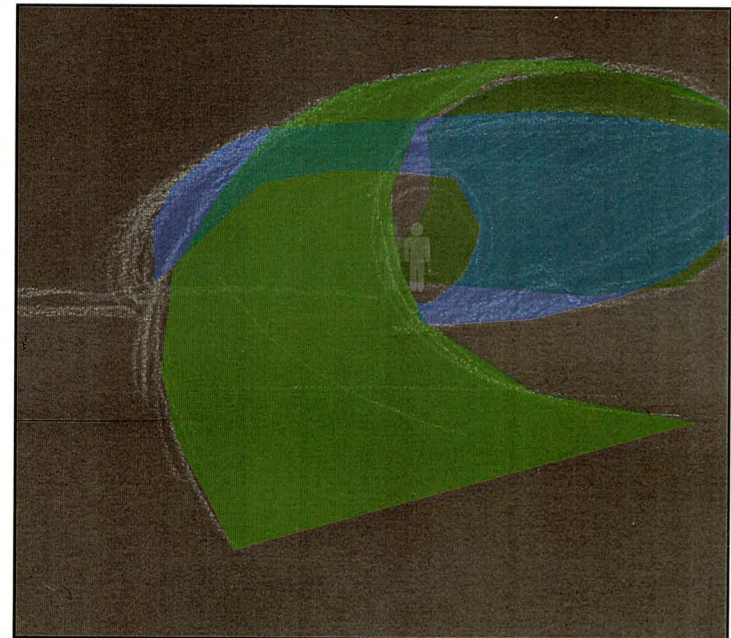
- Studios
- Laboratories
- Workshops
- Lecture Hall



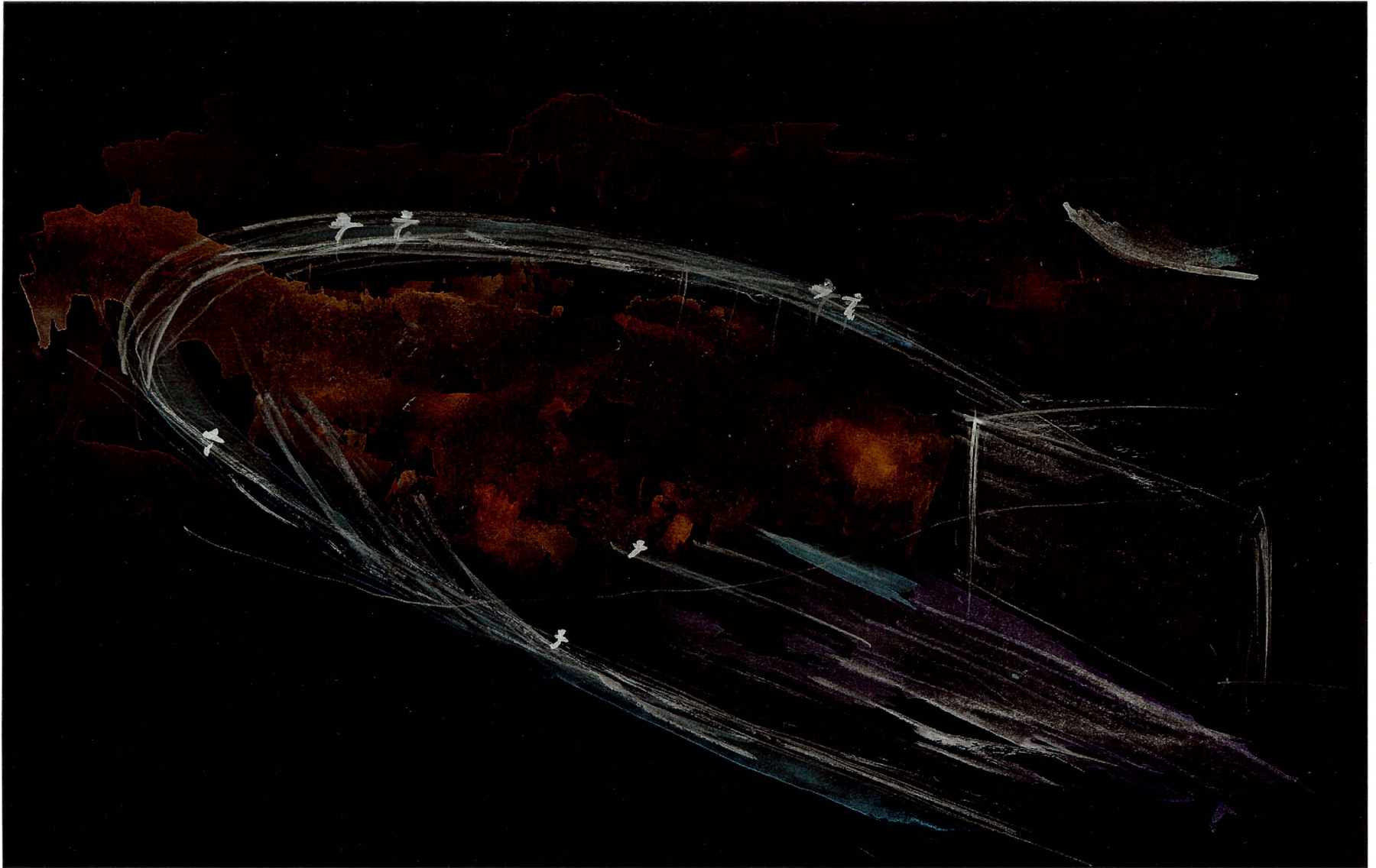
Program	Amount	Total # of pple	Unit area	Total	Attribute	Services required	Total service ar	Total area
Outdoor theater	1	500	700m2	700m2	clear visibility	wc, backstage, storage	300m2	1000m2
Veg & fruit market	1	100	300m2	300m2	accessibility	wc, storage, service ent.	150m2	450m2
Cafes & Restaurants	6	300	100m2	600m2	entertainment	wc, service ent.	150m2	750m2
The harbour bath	1	100	300m2	300m2	safety	showers, lockers	100m2	400m2
The observation tower	1	20	40m2	40m2	accessibility	transportation core	10m2	50m2
Growing Library	1	200	400m2	400m2	quiet, expandable	archives, admin, wc	200m2	600m2
Public reading rooms	5	7	30m2	150m2	quiet	-	-	150m2
Art rooms	5	7	50m2	250m2	openness	storage	50m2	300m2
Movement rooms	5	10	100m2	500m2	nature	showers, lockers	50m2	550m2
Indoor theater	1	300	500m2	500m2	accessibility	wc, backstage, storage	300m2	800m2
Studios	2	25	50m2	125m2	quiet, expandable	storage, admin, wc	40m2	165m2
Laboratories	3	15	40m2	120m2	safety	storage	40m2	160m2
Workshops	2	15	50m2	100m2	quiet, expandable	storage, junkyard, wc	50m2	150m2
Lecture halls	1	150	250m2	250m2	accessibility	wc, storage	40m2	290m2
								5815m2

An enclosure is made of 3 planes; 2 horizontal; the ground, the roof, and one vertical that wraps around itself: the walls. If the ground plane is fixed since people need to travel through space, and a second layer is to be kept completely permeable- non existant- in order to allow permeability between indoor and outdoor; what is left is a single plane that unites both roof and walls in an interchangeable way. The concept is of a series of ribbons where within each one, no single surface can overlap itself in order not to duplicate the thickness of the wall. This ensures a constant void that keeps all internal spaces connected to the outside through the gaps.

VISIONS









*“just as an individual person dreams fantastic happenings to release the inner forces which cannot be encompassed by ordinary events, so too a city needs its dreams” (Christopher Alexander, A Pattern Language, p299)*

The nomenclature of the project as ... is symbolic of hope at the end of a thesis of more than 10,000 assembled words; the three dots are what we will make of them. After the title has grasped our curiosity and we have observed it unfold, these are open grounds for us to engage in building an Urban Sofa in the city of Jounieh...



**BOOKS**

- . New City Life, Gehl, Gemzoe, Kirknaes & Sondergaard, The Danish Architectural Press, Copenhagen 2006.
- . After Habermas: New Perspectives on the Public Sphere, Nick Crossley and John Michael Roberts, Blackwell Publishing, UK 2004.
- . Exterior Design in Architecture, Ashihara, Van Nostrand Reinhold Company, New York 1981.
- . Sociology Textbook, Anthony Gidens, Polity Press, Uk 2006.
- . How Buildings Work, Allen, Oxford University Press, Oxford 2005.
- . The Good Life, Zoe Ryan, Van Allen Institute, New York 2006.
- . Contemporary Public Space Un-volumetric Architecture, Aldo Aymonino & Valerio Paolo Mosco, Skira Editore S.p.a, Italy 2006.
- . A Pattern Language, Christopher Alexander, Sara Ishikawa, and Muray Silverstein, Oxford University Press, New York 1977.
- . New City Spaces, Jan Gehl & Lars Gemzoe, The Danish Architctural Press, Copenhagen, 2003.
- . Ottoman Tulips, Ottoman Coffee, Leisure and Lifestyle in the Eighteenth Century, Dana Sajdi, Tauris Academic Studies, London 2007.

## Websites

- . Arch Daily, [www.archdaily.com](http://www.archdaily.com) for the case studies
- . Municipality of Jounieh, [www.jounieh.gov.lb](http://www.jounieh.gov.lb) for the history and demographics of Jounieh.

