A HOLISTIC APPROACH TO ARCHITECTURE AND ITS IMPLEMENTATION IN THE PHYSICAL AND CULTURAL CONTEXT OF THE PLACE

Nili Portugali, Architect   A.A.Dip R.I.B.A

I am a lecturer at the Bezalel Academy of Art & Design Architectural Department, Jerusalem and a practicing architect working in Israel for the last 20 years.

My work has focused both on practice & theory.

My on going search for what is behind the order of *human* environment, had been developed gradually by me since my studies at the Architectural Association **(A.A)** school of Architecture in London (Dip 1973), through research work with Prof. Christopher Alexander at the "Center for Environmental Structure" Berkeley California, my post graduate studies in Architecture & Buddhist studies at U.C. Berkeley (1979-81), and along my teachings and practice in Israel in the last 25 years.

When religion and nationalism are cynically used by fundamentalists and by extreme mist right and left groups to cause cultural conflicts, and when architects are prompted by aggressive political motives, there is a real existential threat to the physical and human environment we live in.

There is no doubt, that the great art (and architecture) creations throughout history evolved in societies that drew their strength from their cultural and spiritual traditions and from the places they belonged to. These sources, which one might take as the factor that separates cultures and peoples, are exactly the ones that *link* them together in harmony.
The same tree that symbolizes life in the Cabala appears in Tantra Asana art; the same red thread the people of Tibet wear on their wrist for good luck are put on baby's Pram in the Jewish tradition.

In present state of affairs there is a need for a new worldview that by its very nature *crosses* cultures, *replacing current conceptions and approaches*.

The first part of the essay will present the *holistic* worldview, a school of thought that has been at the forefront of science for many years in which my architectural work belong, and the way this approach got interpreted by me both in theory and in the design process, a process *fundamentally different* from customary ones.
The second part will be a presentation of two selected projects built by me in Israel forming a clear implementation and interpretation of the concepts described before, in relation to their cultural and physical (urban and rural) reality.
The first project is the Music Center and Library at the historic heart of Tel-Aviv forming a unique dialogue between a *new* building and the historical environment, an environment being a unique *interface between the orient and the west* (completed 1997).
The second project is a Residential Neighborhood in the Kibbutz forming a new concept of housing related to the recent structural changes in the kibbutz life, giving a new definition to the conception of equality.

ARCHITECTURE IS MADE FOR PEOPLE
A PHENOMENOLOGICAL APPROACH TO ARCHITECTURE

The purpose of architecture, as I see it, is first and foremost to create a *human* environment for *human beings*. Buildings affect our lives and the fate of the physical environment in which we live over the course of many years, and therefore their real test is the test of time. The fine, old buildings and places we always want to return to – those with timeless relevance–are the ones that touch our heart, and have the power to create a deep and direct *emotional* experience.

Contemporary architecture as well as conceptual art sought to dissociate themselves from the world of *emotions* and connect the design process to the world of *ideas*, thus creating a rational relation between building and man, *devoid of any emotion*.

There are different ways to describe buildings that have this timeless quality, buildings that convey an inherent spiritual experience. Frank Lloyd Wright called them "the ones which take you beyond words". Quoted by Stephen Grabow, (Grabow, 1983) Christopher Alexander says: "The buildings that have spiritual value are a diagram of the inner universe, or the picture of the inner soul." And in *The Timeless Way of Building* (Alexander, 1979), Alexander writes, "There is one timeless way of building. It is thousands of years old, and the same today as it has always been. The great traditional buildings of the past, the villages and tents and temples in which man feels at home, have always been made by people who were very close to the center of this way. And as you will see, this way will lead anyone who looks for it to buildings which are themselves as ancient in their form as the trees and hills, and as our faces are."

His Holiness the Dalai Lama calls this quality: "the great self, the such ness or the nature of reality…. The state of mind which brings us close to that quality is a state of knowledge and awareness detached from extraneous factors as the mere clarity of the mind".

Delphi, Greece: The Tholos (4th century); Hsi-an-Fu, China: The Great Gander Pagoda (7th-8th century); Safad, Israel: Yosef Karo Synagogue (16th century)

Although this timeless quality exists in buildings rooted in different cultures and traditions, the experience they generate is *common* to all people, no matter where or from what culture they come from. Thus Alexander's basic assumption was that behind this quality, which he calls 'The quality without a name', lies a *universal* and eternal element *common to us as human beings*.

It seems to me that the real challenge of current architectural practice is to make the best use of the potential inherent in the modern technological age we live in while fulfilling the timeless needs common to us all as *human beings* - needs that modern architecture in general has knowingly denied for the past 60 years, in order to create a *friendly and human* environment.

The basic argument presented here is that in order to change the feeling of the environment and create places and buildings that we really feel part of and want to live in, the issue here is not a change of style, but a transformation of the *worldview* underlying current thought and approaches.

A place with a spirit:
a senior Citizens Day Center,
Tel-Aviv,
Nili Portugali,
completion date 1988.

THE HOLISTIC APPROACH TO ARCHITECTURE
THE RELATIONS BETWEEN THE PARTS AND THE WHOLE

The dissociation created in our time between man and his environment is a clear expression of the change that occurred in the concept that man is part of nature and not superior to it.

Comparing planning processes which resulted in dissociating man from his environment to planning processes that make him feel part of the physical world he lives in, emphasizes the difference between the *mechanistic-fragmentary* worldview and the *holistic-organic* one, which guides the *holistic school of thought* to which my own work belongs.

These are *two different sets of orders*.

The mechanistic worldview underlying contemporary architecture separates elements and creates an environment of autonomous fragments. The result is cities like Brasilia in Brazil, Chandigarth in India, the satellite towns in England and the new neighborhoods around Jerusalem, where the structured disconnection between the house and the street, the street and the neighborhood, the neighborhood and the city arouses a feeling of detachment and alienation.

The holistic-organic approach that has been for many years at the forefront of science in general and as implemented in my architecture work in particular regards the socio-physical environment as a system or a *dynamic whole*, the existence of which depends on the proper, ever-changing interrelations among the parts. Moreover, the creation and *existence* of each part *depend* on the *interrelations* between that part and the system.

In his book *The Joy of Living and Dying in Peace* (Dalai Lama, 1997) His Holiness the Dalai Lama refers to this concept of *cause and effect* by saying: "Nowadays in the field of science there are many disciplines like cosmology, neurobiology, psychology, and particle physics, disciplines that are the result of generations of scientific investigations. Their findings are closely related to Buddhist teachings. The foundation of all Buddhist teaching and practice is the principle of *dependent arising*. Since things arise in dependence of other causes and conditions, they are naturally free from independent and autonomous existence. Everything that is composed from parts, or conditioned by causes and conditions, is impermanent and fleeting. These things do not stay forever. They continually disintegrate. This kind of subtle impermanence is confirmed by scientific findings".

In any organic system, each element has its own uniqueness and power, but always acts as part of a larger entity to which it belongs and which it complements. Having adopted this concept, I do not regard urban design, architecture, interior design and landscape design as independent disciplines removed from each other, but as *one continuous and dynamic system.* Thus the building is not perceived as a collection of *designed* fragments, but as *one hierarchical language*, in which every design detail, on any level of scale, is derived from the larger whole to which it belongs, which it seeks to enhance, and for whose existence it is responsible. *The overall feeling of inner wholeness-unity in a building thus stems from the proper interrelations among its parts.*

The same idea is found in the Mandala, a model that represents processes occurring in nature, where there is always a center of energy feeding the parts around it. However, the very existence of this center of energy is dependent on the existence of the parts around it.
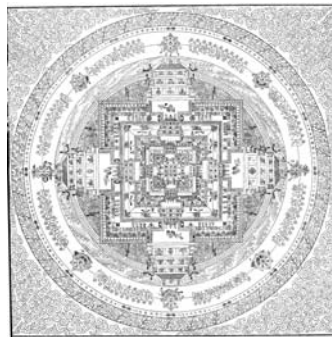
This concept of *interdependence and continuity* was presented in a public talk given by His Holiness the Dalai Lama, in which he noted: "The construction of the whole is caused continually by the disintegration of its parts. For example, the butter lamp as a whole is a source of light due to the melting of the butter. The melting of the butter is caused due to the heat produced by the lamp".

The square, the building and the interior is one continuous system.

Music Center and Library, *Tel-Aviv, Nili Portugali, Completion Date 1997.*
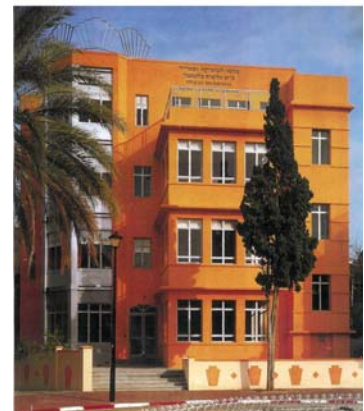
THE PLANNING PROCESS ITSELF

1.Choosing A Pattern Language for The Project

Based on the assumption that beauty and harmony are objective properties related to the geometrical properties inherent in the structure itself, and that feelings have to do with facts, Alexander states in his book *The Timeless Way of Building* (Alexander, 1979) that all places of organic order that seem unplanned and orderless are a clear expression of order on a deep and complex level. This order is based on absolute rules that have always determined the quality and beauty of a place, and is the source of the good feeling in it. In other words, there is a direct connection between the *patterns of events* that occur in a place and the physical patterns - *patterns of space* in his terminology – that constitute it.

The fact that places that share a common pattern of events (for example, Piazza San Marco in Venice and Piazza Mayor in Madrid), although different in form, all create the *same emotional pleasant experience*, gave rise to the hypothesis, that beyond what *appears different*, there is something else, common to them all.

Let's take for example the pattern called *Arcade* – an archetype of a structure that relates to the transition area between a building and the open space around it. Although the arcade in the Hadera synagogue is different from the one in the Assisi cloister or the one in the Tel-Aviv Senior Citizens Day Center, there is *one superstructure* common to them all, a superstructure that defines the *relationship* between the building and its surroundings.

Since the environment consists of patterns that produce a common experience, the relevant question was, what lies behind the *specific patterns* that produce the same *comfortable feeling* we all share in that environment. The explanation was, that as in the various spoken languages there is, according to Chomsky, a common structural element he calls the language of languages or the underlying patterns, an element that is *innate in human beings* and therefore common to us all (which explains why children can so easily learn a foreign language), so in the physical space there are patterns that reflect an *innate pattern structured in our brain*.

The Maimonides Central Sepharadi Synagogue, Hadera,
Nili Portugali, design phase 1988;
Senior Citizens Day Center, Tel-Aviv,
Nili Portugali, completion date 1988;
Cloister, Assisi

The first step in the planning process is to determine the patterns of space that are relevant to the project. Some of them will stem from the specific context of the project and the cultural reality of the place, patterns that vary from place to place, and some from the more basic needs common to us all as human beings wherever we are, as presented in *The Pattern Language* (Alexander, Ishikawa, Silverstein, 1977).

Once I have decided on the list of patterns relevant to a specific project, a set of interrelations between them is automatically created between them, organically defining the scheme of the project. This scheme is than translated into a plan.

2. Planning on the Site Itself
A transformational Planning Process

The plan of the building that is finally created is actually a structure of balance between the abstract pattern language chosen for the project and the *living reality of the actual site*, a reality that *differs* from site to site.

The planning process proposed here is *fundamentally* different from the common planning processes, a process introduced to me by Alexander while working with him on the site plan of Shorashim Community Village in Israel, and adopted by me in all my actual work since than.

Once I have set a list of patterns for the project, all planning decisions concerning the physical structure of the project are taken literally only *on the site itself*. Unlike the common planning process, where planning takes place in the office and then transferred to the site, here the drawings are merely the *recording* of planning decisions that have been taken currently *on the site itself*.

The process of creation has to be inspired by what is *already there,* and our task as artists or architects is to discover, identify and revive those visible and hidden forces.

The creative process which feeds on what is apparently already there, is definitely not a passive one. Unlike common planning process, where everything is predetermined, this is a process whereby the plan of the building develops gradually from the interaction of the abstract planning patterns and the *unpredictable* developing situation on the site.

Planning decisions taken on the site, materialize in the building itself.
Ir yamim community center*, Netanya, Israel, Nili Portugali, Design Phase 2004.*

In his book *Zen in the Art of Archery* (Herrigel, 1964) Eugene Herrigel describes the *state of mind* in which the process of creation must take place, noting, "Drawing the bow and loosing the shot happens independently of the Archer. The hands must open like the skin of a ripe fruit. The Archer must let himself go, to the point that the only thing that is left of him is a *purposeless* tension…. At this state of mind, being *released from all attachments*, art should be practiced".

The order according to which the planning decisions are taken on the site is determined by the hierarchical order in which the planning patterns appear on my list governed by the rules of the pattern language itself. Decisions are first made on issues that affect the larger scale we have to confront at any given moment along the development of the plan, moving to other decisions generating from them.

Moreover, the planning process is not conceived as an additive, but rather as a *differentiating* one, where each new element of the plan is *differentiated* gradually from previous ones.

Each decision taken on the site and marked on the ground actually *changes the configuration of the site as a whole*. That new whole (configuration) that has been created and can be fully visualized on the site forms the basis for the next decision. Since each stage is based on the previous one, a wrong decision creates a faulty system that cannot serve as a basis for the next decision.

The final "layout" that emerges on the site is measured and recorded by a surveyor. That moment when all the markers suddenly become *a whole,* a visible plan, is a moment of surprise and excitement.

Experience has taught me that decisions that sometimes appear irregular and strange on paper often make sense in reality (where it comes from), and vice versa, a plan that appears perfect on paper (where it was created) does not make sense on the site. So, if when looking at the "stakes plan" doubts arise concerning one or more of the decisions taken on the site, the correction is not made on paper in the office, but checked again *on the site itself*. The final "stakes plan" forms the basis for the final plan.

The planning decisions taken and marked on the site form the basis for the final plan.
A memorial site for the fallen intelligence servicemen, *Glilot Tel-Aviv, Israel, Nili Portugali, Competition Entry 1982 Purchase Prize.*
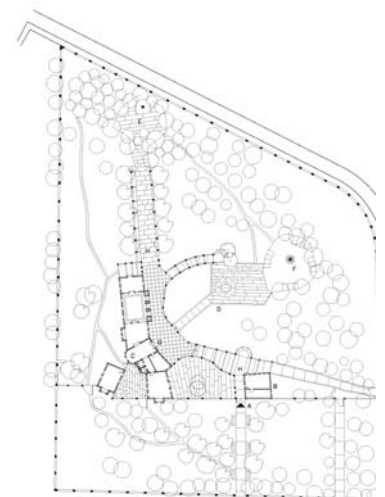
Shorashim community village, *Galilees, Israel**
"The Center for Environmental Structure",
Berkeley, California.
design phase
1979

The Site Plan Schema *(Simulation plan) showing*
how the Set of social rules, translated into spatial
patterns established for the moshav community, is
physically structured on the hill on which the
moshav sits.
Each increment developed gradually on the site is
organically related to what had been there before.
At any phase of its development, the moshav
appears as a coherent whole.
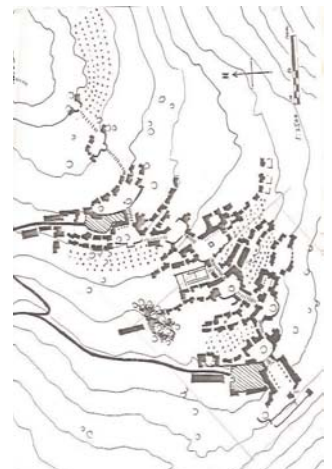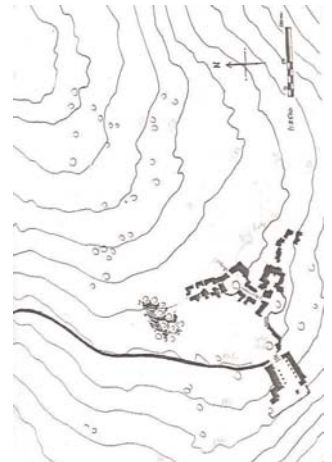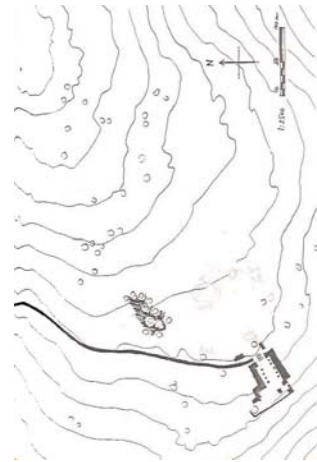
Once the schema was done, the actual design
process of the moshav was done on the site itself.
1981

The families of the
moshav were full
participants in the
planning process
that took place on
the site itself.

The kinder-
garten was
allocated
near an old
carob tree
to form
later the
center of
the court-
yard.

The synagogue was
allocated where
there was a mag-
nificent view to the
Mediterranean
Sea. Stakes, mark-
ing the precise
*location, chosen*
for the entrance
gate to the court-
yard.

9

Stakes plan (increment one)
The planning decisions taken and marked on the site itself (500 stakes), were surveyed and recorded on paper, forming eventually the final site plan of the first increment.

A *Public center.*
The link between the centers form the main street of the moshav.
B *Cluster of houses sharing a common land is located off the main street.*
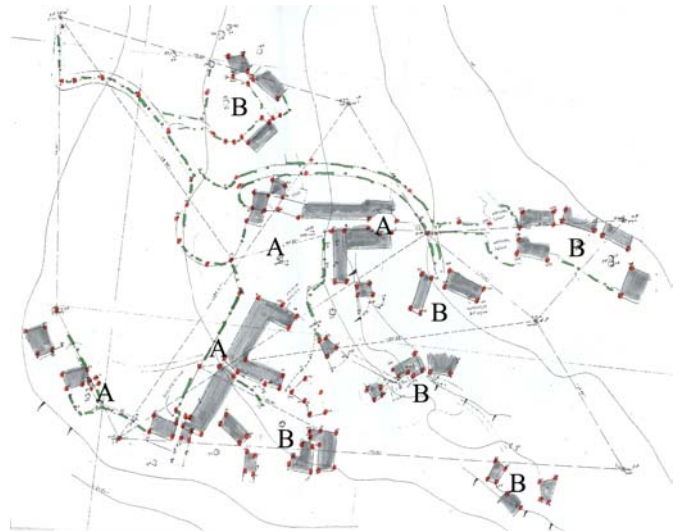
### The Final Site Plan (increment one)
1981
The Site Plan Schema simulation plan is realized to an actual site plan.
This final plan of the first increment of the Moshav (like all the future increments to come) was a structure of balance between the ground rule (the archetypical "patterns"), that were established for the moshav (many of them published in A Pattern Language and got interpreted by the specific community), and the living reality of the site at the real time of its development.
The similarity between the site plan schema (simulation) and the final actual site plan stems from the common ground rules that produced them.
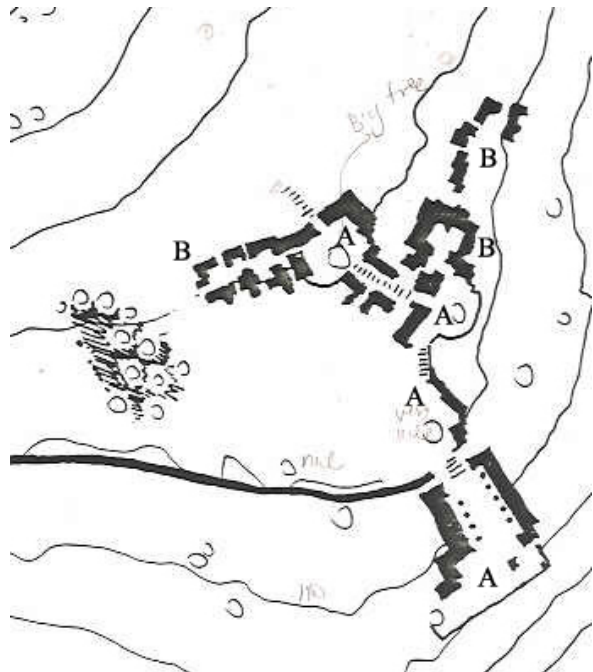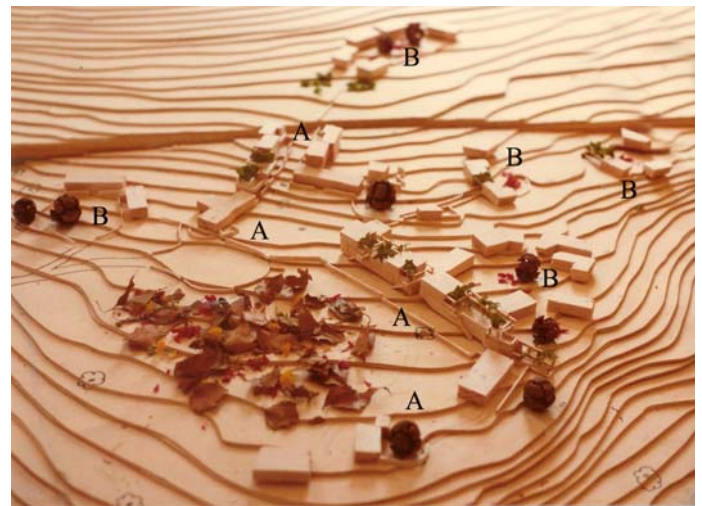
Simulation plan
(increment one)

Overall view of the moshav (increment one).
The moshav is an organic part of the landscape. It appears as if it has been rooted there for ages.

The houses were arranged in clusters, sharing a common land. The unique planning and construction process of the site left the natural existing landscape untouched.

Each house had a private land that was opened onto the common land.
When the same common rules were used in different site conditions, a variety of forms emerged on site, sharing one architectural language.

---

* **Shorashim industrial cooperative village** (Moshav) Galilees, Israel
"The Center for Environmental Structure", Berkeley, California.
completion date (increment one) mid 1980s.

"The plan of Shorashim community village (Moshav) is an organized structure which defines a complex human relationships among individuals and groups in a particular form of collective life. It is a social structure."...

"Even in the long history of Israel's experiments with cooperatives both Kibbutz and Moshav, there has never been an experiment in which the physical community has been seen as a dynamic and essential part of the evolving social community."...

"This experiment initiated by the Jewish Agency implemented a dream which has been discussed in many countries, that of economy that has the productive power and social benefits of a modern urbanized economy, but placed in the rural setting, and with the social ties that are typical of agricultural villages and rural cooperatives like the ones founded in Israel since its early stages."...

CHOOSING THE COLORS FOR THE BUILDING

Choosing the colors for the building is one of the more difficult decisions in the design process. The choice of colors has an overwhelming effect on the feeling of the building. Colors have the power to give life and enhance the qualities inherent originally in a building or to suppress them. The choice of color is made intuitively *on the site* when the building is *completed*, when I can fully sense its mass as part of the overall environment. I try to envision the colors (hues) that practically reveal themselves naturally from the building. Only then do I experiment with applications of those colors in order to arrive at the final tones.

As in the planning of the building, so at this stage of choosing the colors, the process is a gradual one. First I determine the color of the walls – the big mass, and then deriving from that, follows the decision about the colors of the window frames, the rails, the gates and all the other details, to the smallest one, so as to complement, enhance and enlighten previously chosen colors.

The color chosen for the exterior wall was the hue of the golden leaves that fall outside the building in the autumn.

Ohel Shem community and school library, *Ramat-Gan, Nili Portugali, completion date 1996.*

A DIALOGUE BETWEEN THE QUALITIES OF TRADITION AND MODERN TECHNOLOGY

Modern technology available today should not be conceived as an aim or a value in itself, but as a *tool* to create *a human and friendly* environment that will satisfy the basic needs that are common to all of us as *human beings*. Despite the unlimited possibilities it opens to us, that should be used in a controlled, value-oriented and moral way.

A Senior Citizens Day Center, Tel-Aviv, Nili Portugali, completion date 1988.

One of the immediate questions I am asked in reaction to the buildings I design is whether it is a new design that tries to reconstruct an architectural language of the past.

My answer to that is that I do not attempt or aim to reconstruct the past or to nostalgically trace this or that style. The similarity and the *association* created between the buildings I design and those we know from the past, and the similar experience and feeling they create, originate in my use of the same fundamental *patterns* and planning codes that guided in the past and will be guide in the future in any culture and tradition, those who aspire to give a building *a spirit and soul*, codes that have been brutally ignored (in general) by contemporary architecture, and which I try to revive and implement in the buildings I design, in relation to the physical and social context of the place I am working in.

Safad: a traditional pattern of 'Entrace Gate'

the use of the pattern 'Entrace Gate':
***A Senior Citizens Day Center**, Tel Aviv, Nili Portugali, completion date 1988;*
***Ben Avraham Residence**, Zichron-Yaakov, Nili Portugali, completion date 1990.*

safad: a traditional pattern of 'Entrace Courtyard'

the use of the pattern 'Entrance courtyard':
***Hibat-Zion synagogue** (model), Jerusalem, Nili Portugali, completion date 1995.*

MUSIC CENTER AND LIBRARY

Tel-Aviv, Israel
Completion Date 1997

A UNIQUE DIALOGUE BETWEEN A NEW BUILDING AND THE HISTORICAL ENVIRONMENT

Preserving the spirit of a historical environment does not necessarily mean a fanatic repetition of its language. The Bialik district at the heart of Tel-Aviv, with Bialik Square at its center, is a micro-document of the architectural history of Tel-Aviv from the 1920's, the **"Eclectic period"**, when European architecture was brought to Israel and integrated with the local oriental architecture, to the 1930's and the new 'International Style' somewhat later.

The new Music Center and Library built at Bialik Square (1997) is located on the site of a three-story residential house built in 1931 and demolished in 1994. My commission was to design a new building integrating a reconstructed part of the façade of the old one.

My conception was that once you demolish a building and reconstruct just one isolated architectural element of it, it would become a meaningless fragment, for it would no longer be an organic part of the whole, and thus would not serve the initial purpose of preserving the old. Thus, what I tried to do was to treat the reconstructed part as an environmental element that has to be naturally integrated with the newly designed building, to form one coherent functional-visual entity.

The intention was to design the new center as an integral part of the square.

The key question I asked myself was, what is the right thing to do in order to preserve and enhance the spirit of what still exists around there, which is so human and right.

Standing in the square I adopted none of the classical approaches. I aimed neither to reconstruct the past nor to dissociate myself from it by enforcing a completely new order. I was looking for a language that *at that point in time* in Bialik Square would create a *meaningful dialogue* between a new, contemporary building and the historical environment.

main elevation towards the square

■ *reconstructed part*
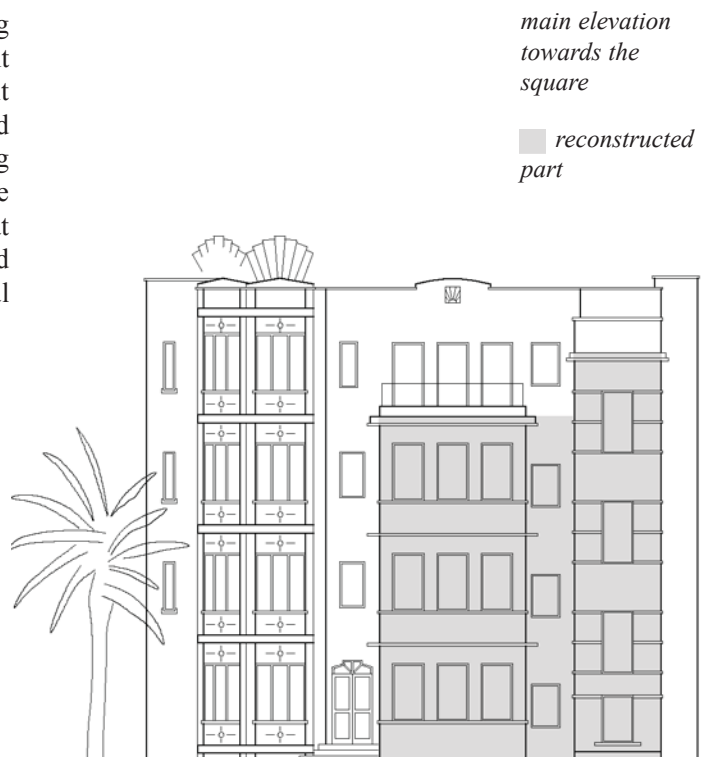
מרכז למוסיקה וספריה
ע"ש פליציה בלומנטל
FELICJA BLUMENTAL
MUSIC CENTER & LIBRARY

The Interrelation Between The Building And The Square

The powerful presence of the building in the square emanates from its being an integral part of it, and not from the efforts to distinguish it from its environment. This intimate and organic integration was created by several basic means:

The dimensions of the building were in harmony with the human scale of the square.

The faηade of the building defines the boundaries of the square, and therefore determines the feeling it inspires. The orange paint of the building's faηade, apparently expected to disturb the tranquility of the square, was the element that complemented the blue color of the sky and the green color of the trees to create a harmony that inspired peace and serenity in the square.

The cornices that jut out at the faηade belong morphologically both to the building and to the space next to it, uniting them together.

The dialogue between the building and the square continues through the high windows behind which all the indoor **"public"** areas are located, as well as from the roof terrace overlooking the square.


The crown on top of the building provides a graduated *link* to the sky. Its shape was derived from the same language that determined the pattern of the cement tiles of the porch and the reliefs on the railing wall.

At the front, where the building touches the square, an *entrance porch* was designed for the orchestra to play to the audience sitting in the square, thus creating a physical and human connection between the building and the square.

The form of the crown, the railing wall reliefs and the cement tile, are all echoes of one pattern.

16
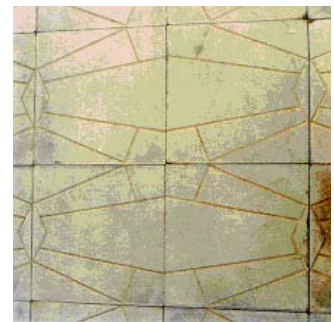
The interior of the building

Past the main lobby, at the entrance to the building, is the auditorium, separated from it by a glass wall, through which the back garden at the far end can be seen.

At the side of the lobby there is a wide-open staircase, which is an identified beautiful space by itself. It leads to the upper floors, providing a view to all the floors open to it.

The first floor houses the lending library with the catalogues and librarian counter at the entrance. The rear areas are reserved for the notes, scores and books, with access to staff only.

The second floor accommodates the museum of musical instruments and contemporary exhibitions related to music. Further along, past glass partitions are a study and periodicals room and an archive. These three spaces make one visual continuum while preserving the identity and uniqueness of each space.

The top floor houses the audiovisual library that lends discs, videotapes, and records. Further along, beyond the glass partition, is an audiovisual room with a view of the sea.

Extending from this floor, overlooking the square, is a roof terrace that has also a view of the sea.

The secret enfolded in the **beauty** of a building (or of any artifact) as a whole lies in its spatial order and in the nature of its details. The details like the furniture, lighting accessories, materials and colors, are regarded as an *inherent part* of the building and therefore are *inseparable* part of my planning process.

The similarity in form between the details stems from the *common whole* to which they belong.

In modern society, beauty has become a term of abuse, often associated with inefficiency, impracticality, lack of functionalism and high costs. That notion of beauty is true when it relates to details as decorative elements and ornamentation *for its own sake.*

The Shakers, a religious sect that created an abundance of useful furniture and utensils in the mid-eighteenth century, noted that the wholeness and beauty of form are products of pure functionalism, and that there is no room for beautiful forms that do not flow from a *functional* need. Take, for example the gold leaves capital of the iron column, which connects it to the beam. This part is functionally separate from the other parts of the column and was *therefore given*

a different form and color.

At the same time, however, the Shakers did not interpret the term "pure functionalism" in the *narrow* sense of the word, as did the modernists, for whom the expression "form follows function" was semantically connected only to the *physical* body of the building, but in the broad sense that connects it both to the physical and *spiritual* experience in a building. This is the experience I want to create for the users of the buildings I design.

This concept is manifested, for example, in the following design details:

The wall between the lobby and the auditorium, which normally would be solid, is a glass wall that allows a view to the depth of the building immediately upon entrance.

The six steel columns that rise to the top of the building are structural, but at the same time their placement helps to define and distinguish the public areas of each floor.

The capital of the column, a functional entity that both separates it from the beam and connects it to it, is distinguished from other parts of the column by its leave-like shape and its gold color.

The textured gold color of the walls in the public areas is different from the color of other spaces.

The seams between the stone tiles and the carpets are made of cherry wood, a third material that both joins and separates the two.

The soft reflection of the light when it touches the gold, silver and redish colors in the space creates a unique feeling that envelops all parts of the building.
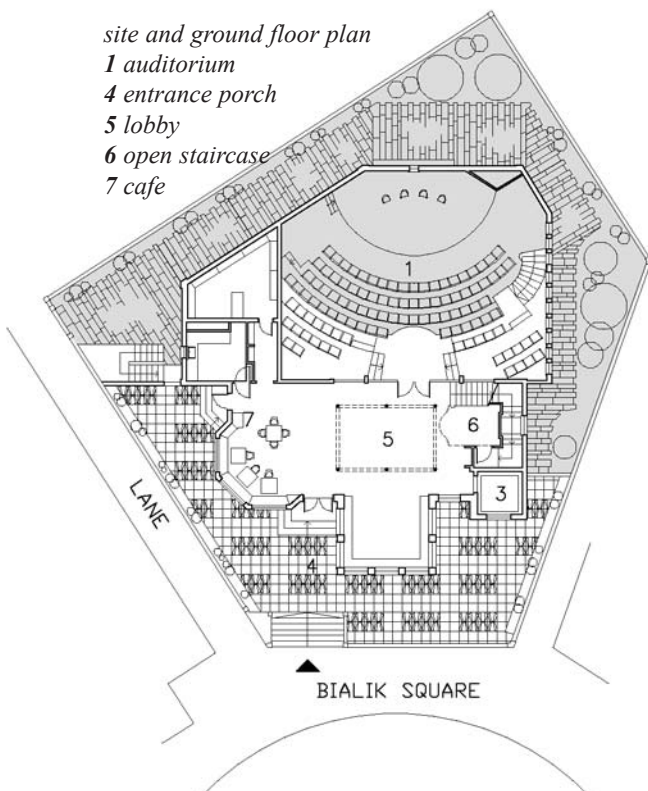
site and ground floor plan
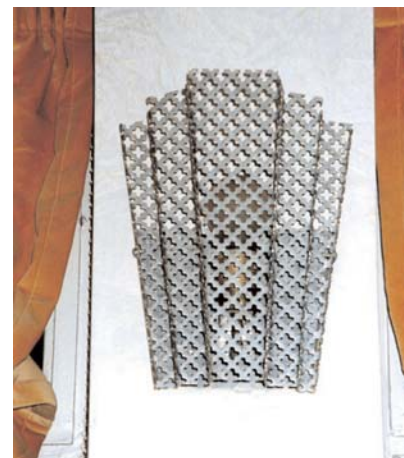1 auditorium
4 entrance porch
5 lobby
6 open staircase
7 cafe

LANE

BIALIK SQUARE

The similarity in form between the ceiling, the glass wall, the gallery and the chair stems from the common whole to which they belong.
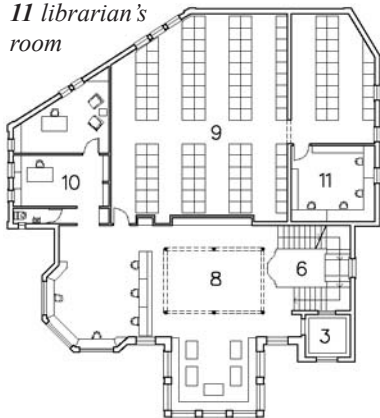

18

*The iron
balustrades
provides a
melody,
enhancing the
feeling of the
staircase.*

*Catalogues area,
overlooking the
square.*

*first floor plan -
music lending
library
8 catalogues and
librarian counter
9 notes, scores,
books
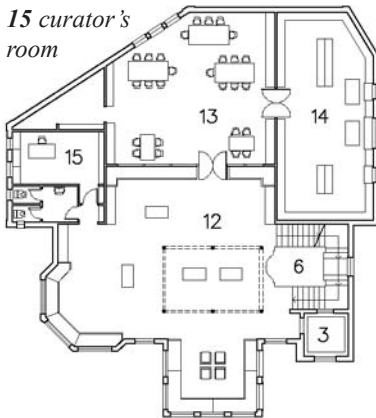10 administration
11 librarian's
room*

second floor plan
12 museum of music
13 study and periodicals room
14 archive
15 curator's room
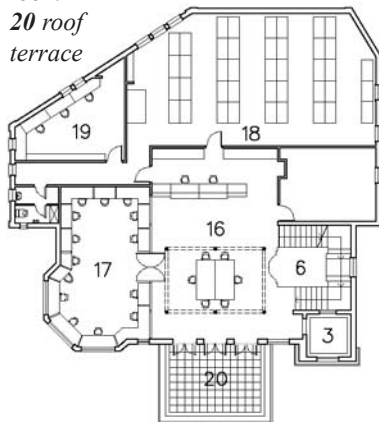
third floor plan - audiovisual library
16 cataloges and librarian counter
17 audiovisual room
18 discs videotapes records
19 librarians room
20 roof terrace

All parts of the audiovisual library are visualy connected, all have a view to the roof terrace and the sea at the far distance.

cross section
The square, the building and the backgarden form one continous whole.

RESIDENTIAL NEIGHBORHOOD IN THE KIBBUTZ

Kibbutz Maagan Michael, Israel
Completion Date
Stage 1 2001
Stage 2 2004

STRUCTURAL CHANGES IN KIBBUTZ LIFE REQUIRE A NEW CONCEPT OF HOUSING

From Quantitive Uniformity to Qualitative Equality

The social, economic and physical structure of the collective known as a 'kibbutz' was founded in Israel in the early 20th century.

Its uppermost value since its very beginning was *equality*, translated in most realms of community life not as equality of opportunities, in its qualitative sense, but rather in its *quantitative* sense, as formal uniformity. This dogmatic equality obliterated the self-identity and uniqueness of the individual and saw him only as part of the collective.

In recent years, however, this old conception of equality has been redefined in many respects.
The social structure reverted back to the nuclear family, with children raised at home, and no longer in a communal house where they were regarded as the possession of the community as a whole. Wages, previously based on the notion that every member contributed according to his or her own ability, but was supported according to his or her needs, have now become differential, based on one's contribution.

Housing in the kibbutz is perhaps the last fortress of the old and simplistic conception of equality, a conception that now more than ever can change.
According to this conception, houses are regarded as static *models* of *predetermined* uniform shape, arbitrarily positioned on the building site. All houses with no regard to any environmental factors such as the direction of light or the angle open to the view on any specific plot, resulted in having all identical plan and elevations. Thus a tenant whose window *happens* to face the orchard has the advantage on the one whose window faces the cow shed.

This approach created a qualitative inequality between the houses and inequality of opportunities among the tenants.

Moreover, the outcome of this dogmatic approach was that houses built in the desert environment of the Negev or the hilly Galilean environment were exactly the same.

The new model implemented by me in the design of the new houses in Kibbutz Maagan Michael was *fundamentally* different. The planning process I adopted was based on patterns that were common to all the houses, patterns that grew out both of the social structure of the kibbutz and the geographic location facing the sea. When these *common patterns* were used in *different site conditions*, *a variety* of houses emerged, sharing one architectural language.

Planning the neighborhood on the site

Kibbutz Ma'agan is situated on a hill, with the new neighborhood on the western side that faces the sea.

Each planning decision, from the positioning of the house on the site, through the determination of the direction of its entrance in relation to the path, and unto the location of each window, was taken *on the site of each plot*.

First the position of each house in relation to the others was determined, so as to ensure that each one has an open view to the water and can enjoy the breeze coming from the sea.

To determine the level of each house so that one could see the sea while sitting on the terrace, I used a crane that lifted me up to where I could see the sea. This height was measured and the level of the house was determined accordingly.

Site Plan
The position of each house was taken on the site in relation to the others, so to ensure an open view to the sea.

SEA VIEW

At the center of the neighborhood, a path was planned connecting the promenade that runs along the water and the path that runs from the communal dining hall at the heart of the kibbutz to the neighborhood.

What dictated the course of the path was my wish to see the water from every spot along the path.

The houses were arranged in small clusters, sharing a communal open space. Unlike the traditional pattern in the kibbutz, where all open spaces, called 'the lawn', are communal and the buildings are dispersed arbitrarily in between, here the secondary paths running between the houses defined in a non- formal way, with no fences, the "private" zone of each family. This sense of "private territory" unexpectedly created a new reality in which each family started to grow its own garden. This new pattern of behavior could not have developed in the traditional model, where the common open spaces were planned as the property of everyone, and therefore of no one.

At this stage the site plan was completed. The position of each house in the neighborhood in relation to the paths and its position in relation to the sea *produced different types of house plans*. On plots where the entrance from the path was in the same direction as the sea view, type A plans emerged. Here the entrance was through the main garden to the living-dining area that faced the view.

On plots where the entrance was from the opposite direction of the sea view, type B plans developed, and the entrance was through the opposite side of the

garden and living areas.

In front of each house there is a bicycle rack (the only means of transport allowed within the boundaries of the kibbutz). Next to the entrance door a place for muddy boots was allocated, a prominent symbol of the kibbutz.

The walls are all whitewashed light blue, complemented by regionally quarried sandstone characterizing the construction details.

The implementation of a conceptually new model in a very rigid social framework became possible now, as a result of an overall change in the reality of the kibbutz communities, a change that was inevitable in the twenty-first century.

House Type A

House Type B

BIBLIOGRAPHY

His Holiness the Dalai Lama, *The Joy of Living and Dying in Peace*, Harper Collins, India, 1997

Christopher Alexander, S. Ishikawa, M. Silverstein, *A Pattern Language*, Oxford University Press, 1977

Christopher Alexander, *The Timeless Way of Building*, Oxford University Press, 1979

Stephen Grabow, *Christopher Alexander, The Search for a New Paradigm in Architecture*, Oriel Press, 1983

Eugene Herrigel, *Zen and the Art of Archery*, McGraw-Hill Book Company, 1964

Christopher Alexander, Amos Gitai with Howard Davis, *Master Plan for Segev H*, Center for Environmental Structure, 1979