

TEL-AVIV'S MODERN MOVEMENT

The White City of Tel-Aviv  
A World Heritage Site

The plan, encompassing an area of 667 acres, went through various committees, until it was finally approved in 1938. Many changes were made, but the basic principles were kept and still apply to this day, determining the nature of the city's architectural fabric. The assimilation of Modern Architecture within Geddes' urban block created a mosaic of white cubes surrounded by gardens. By the thirties, most of the city was already built. Modern construction spread homogeneously throughout the planned area, creating a free and intimate urban fabric. A walk through the White City's center reveals its uniqueness — the residential streets' section (the proportion between the streets' width and the buildings' height) is both intimate and spacious, the profusion of gardens and the calculated separation between commercial arteries and quiet residential areas creates a good balance between a green city, residential needs and commercial and cultural activities, and grants Tel-Aviv's residents a good and comfortable quality of life to this very day.

The architectural context is an exceptional example of the urban potential of Modern Architecture.



Aerial photograph of Rothschild Boulevard-part of the green ring that circles the city center



City's map from 1931- central and northern areas based on Geddes Plan of 1927



Final Geddes Plan revised in 1938

## The Physical and Geographical Aspect

### The Size of the Site and its Central Location

Tel-Aviv lies at the center of Israel, and is considered its largest city. From the earliest days, the founders' ambition was to create a city that would resemble New-York — and such hopes may still be encountered in our day.

The national business center is within the city's boundaries, its cultural institutions are dynamic and active on an international level, serving as a central focus for the entire country. Life in Tel-Aviv, often called "a city that never quits", is indeed intense. The White City lies at the very center of this city, and shores its commercial, cultural and touristic activities. Its central location daily exposes it to large masses, and thanks to its urban and architectural features, it is capable of hosting this activity quite comfortably. This feature sets it apart from other modern centers in Europe, which function as quiet residential suburbs at the fringe of urban activity, or provincial cities with low exposure and accessibility, such as Sabaudia in Italy.

During the years 1931-1948 3,700 International Style buildings were built in Tel-Aviv, 1,000 of which were selected for preservation. They are part of the homogenic architectural fabric, which is protected by special regulations. The location of the site, its size and its large and varied collection of buildings, make the White City a unique phenomenon in the history of Modern Architecture.



An historical aerial photograph of the city center - 1945

### The Architectural Aspect

#### Richness due to a variety of influences, and the making of a local architectural language

The local architectural language evolved from the fusion of different influences and the constant, open discussion of basic planning problems within the "Circle". Together, these architects searched for new construction methods, which would help raise standards and reduce production costs, as well as solve local climatic problems.

The many sources of influence resulted from the architects' different countries of origin, their varied formal education and the experience acquired in Central and Western Europe of the late nineteen twenties. Joseph Neufeld and Carl Rubin worked in Erich Mendelsohn's office in Berlin, Richard Kauffman was his friend, and was in constant touch with him, Arie Sharon, Shmuel Miestechkin and Shlomo Bernstein studied at the Bauhaus school in Germany, Sam Borkal and Shlomo Bernstein worked in Le Corbusier's office, and Ze'ev Rechter, who studied in Paris, was influenced by his ideas. A large group of about 20 architects - including Dov Karmi, Genia Averbuch and Benjamin Anekstein - finished their studies in Gent or Brussels. Yet another group studied in Italy, and was influenced by Terragni and Pagano.

Erich Mendelsohn arrived in Israel in 1934, and stayed here till 1942. Mendelsohn worked mainly in Jerusalem and Haifa. His only building in Tel-Aviv was the Max Fein professional school, then at the outskirts of the city. In spite of his limited involvement in this city, his buildings were a source of inspiration for local architects - although he himself was not enthusiastic about the way they imitated him.

Beyond the multiple external influences, there were trends which tried to embed Modern Architecture in the local setting and the traditional Oriental architectural language, while finding simple solutions for climatic problems. The ample glass surfaces of European Modernism were abandoned since they did not allow for the regulation of strong light and high temperatures, and the only vestige left of this Modern element are stairwell windows. Buildings were divided into several masses, with protrusions and recessions which let in the western sea breeze, ribbon windows were replaced by elongated balconies receding from the building mass, with devices providing shelter from the sun such as: canopies, skirts, ventilation slits etc.



29 Idelson st. - 1936, Architect: Dov Karmi  
Recessed Balconies provide a local equivalent to Corbusian ribbon windows

Local architecture also incorporated elements and knowledge from the Oriental tradition, such as the use of patio courtyards, ventilation through upper round or square windows, arcades and the concept of the *mashrabiya*. The adaptation to climatic conditions, traditional language and the existing environment contributed to the creation of dynamic masses, with protrusions and recessions from external walls, as well as the calculated play of balconies, which appear in infinite shapes and variations. All this created an architecture characterized by strong plasticity, which follows the codes of the Modern Movement, but also demonstrates the possibility of creating an infinite number of new forms in Modern Architecture, and brings out its potential and high versatility.

The combination of different European influences, local motifs and devices for maximizing ventilation and shelter from the sun created a rich local language, distinguished from other Modern centers by its strong three-dimensionality and expressiveness.

Tel-Aviv's architects had some reservations about the harsh rationalism which created abstract compositions, and preferred the expressiveness of curves and the flow of horizontal lines, which appeared in the curved balconies or entire masses of buildings designed on a circular or semi-circular plan. Le Corbusier's theories led to an architecture which emphasizes the individual's comfort and quality of life. Mendelsohn's influence, on the other hand, gave the city its "soft" look, which infuses it with a free, optimistic and cheerful atmosphere.



Worker's cooperative residence "Hod"-1933, Architect: Arie Sharon, Architecture influenced by the Bauhaus school



Engel House - 1934, Architect: Zeev Rechter, A vision of the city on pilots, influenced by Le Corbusier



Kupaot Holim Center and pharmaceutical store - 1938 , Architect: Joseph Neufeld, A building influenced by E. Mendelsohn's work



Beit Va'ad Hapoel - 1955, Architect: Dov Karmi, A site influenced by Le Corbusier and Oscar Niemeyer

A quick survey proves that it would be incorrect to compare Tel Aviv unequivocally to other urban environments, because one or more dimensions found in the place chosen for comparison will always be absent. Modern centers that belong to the heritage of the twentieth century represent different political, ideological, and social aspects, which affect urban architecture and influence the manner of its survival over the years.

Because of the complexity of the phenomenon, we have chosen to compare Tel Aviv to other locations through a separate analysis of each aspect and its manifestations. The following are the main aspects for comparison:

- The ideological aspect and the application of Garden City principles.
- The centrality of the place, its size, and its economic and political significance.
- The architectural aspect and its integration into the urban setting.

### The Ideological Aspect and the Application of Garden City Principles.

The Zionist Movement officially adopted the ideas of the Garden City Movement as far back as the beginning of the twenties. In 1920, author David Trietsch founded the Palestinian Garden City Society. In 1925 Trietsch headed a delegation which met with British High Commissioner Herbert Samuel. According to available documentation, as a result of this meeting the idea of the Garden City was accepted as the official type of settlement throughout the country.

The Palestine Land Development Company was established to apply the idea on a national scale. Thus it was that the ideas of the Garden City were brought to Palestine by Zionists of German origin, and implemented by architects, many of whom also studied in Germany, where they absorbed the ideas of modernism in planning and infused them into their work in Palestine. Leading among them were Alexander Bäerwald, Joseph Levy, and Richard Kauffmann, who, as chief planner of the Palestine Land Development Company, was the most influential of them all<sup>[1]</sup>.

The basic ideas of Ebenezer Howard's Garden Cities were intended to improve the quality of residences for the masses. In contrast, the Zionist Movement aspired through these ideas to find a solution to the concentration of the Jewish People in its land, while seeking a type of cooperative settlement that would bring the immigrants closer to the land from which they had been cut off for centuries. The European problems of population density in the industrial centers were foreign to the local situation, but the aspirations of the Garden Cities Movement, bringing about better living conditions, an active social life, and a direct link with nature, very much suited the new settlement in Palestine.

Richard Kauffmann designed most of the moshavim (cooperative farming communities) in the Jezreel Valley and the new residential neighborhoods in existing cities. Arthur Ruppin brought Kauffmann to the country in 1920 and in 1921 he designed the first moshav, Nahalal, in the Jezreel Valley. Its circular plan, with a natural separation between the various functions,

[1] Emanuel Tal, "The Garden City Idea as Adopted by the Zionist Establishment", Fiedler Jeannine, ed. Social Utopias of the Twenties, pp. 64-71, Tel-Aviv by Muller+Busman Press, Wuppertal 1995

corresponded amazingly with Ebenezer Howard's theoretical diagrams and left a deep impression because of its great clarity<sup>2)</sup>.

In 1921, Kauffmann designed the neighborhood of Talpiyot in Jerusalem - the first garden neighborhood in the country established as a residential suburb with an independent center containing public buildings. Later, he also planned the Jerusalem neighborhoods of Rehavia and Beit Hakerem, all based on the principles of the Garden City. In 1923 he designed the Haifa neighborhood of Hadar Hacarmel as the first Jewish neighborhood beyond the Arab lower city, which was densely populated and plagued by poor hygienic conditions.

The German Garden City Movement, which was the main inspiration for local planners, established peripheral neighborhoods as a solution to problems of population density in the historic centers. In Germany, the realities of existing mature cities did not allow radical changes within the historic centers, and thus the Siedlungen were established. Dammertok on the periphery of Karlsruhe and Törten as a part of Dessau are clear examples of this phenomenon. These neighborhoods represent rationalism at its best in both planning and architecture, as opposed to the English Garden Cities from the beginning of the century where, while rationalism in planning was evident, vernacular architecture prevailed.

The peripheral residential neighborhoods in Europe solved the problem of the development of the city core, but the historic center usually lost its residential vitality and remained isolated and "frozen." This did not happen in the garden neighborhoods of Haifa and Jerusalem. Over the years they ceased being peripheral neighborhoods and became an inseparable part of each city's overall urban context.

In this atmosphere of consensus with regard to the Garden Cities, it was proposed to Geddes in 1925 that he design north and central Tel Aviv. The type of construction in the first neighborhoods in the south part of the city partially fit in with the ideas of the Garden City but lacked both the basic outline that separated the various functions and a clear hierarchy of streets.

Sir Patrick Geddes (1854-1932) was self-educated in a variety of disciplines: urban planning, biology, and sociology. He believed in an organic concept and in the theory of evolution, and was a pioneer of modern urban planning, which he perceived from the beginning as an "interdisciplinary" doctrine. During his last 20 years of work he focused on Cyprus, India, and Palestine, but only in Tel Aviv did he succeed in implementing his vision of the principles of modern planning.

In planning, he took into consideration all the data influencing the local environment: climate, direction of the winds, local topography, historical background, connecting roads, sources of employment, social structure, and the material and spiritual needs of the local population. Tel Aviv is outstandingly unique in comparison with other cities because of Geddes' success in merging quality of life and the link to nature that were characteristic of the Garden City, with the intensive activity of a central city whose planning rationale allows it to continue developing without impairing the basic suppositions of the original planning.

<sup>2)</sup> Michael Levin, "The 'Garden City' as the Inspiration for the Plan of Nahalal," Ariel No. 69 1987 pp 1423.

Ebenezer Howard's model of the Garden City, on the basis of which the garden cities Letchworth and Welwyn were established, called for independent centers for 30,000 residents, with lands owned publicly or by a cooperative. The cooperative would also concern itself with combining, among other activities, the marketing of industrial and agricultural products while clearly separating industrial, cultural, residential, green and agricultural areas. Quality of life and the connection with nature were equally sought after for the entire population. Geddes defined this type of settlement in his 1925 report as a Garden Village and not a Garden City, perhaps because of the rural character of Garden Cities, their limited dimensions, and their lack of an option to develop beyond the external ring of agricultural areas.

Geddes was an enthusiastic supporter of the theory of evolution, thus he did not believe in a program that did not take future development into consideration. Geddes planned Tel Aviv, in within the boundaries of the mandate area, for 100,000 residents. But the adoption of the Geddes Block as a basic nucleus that replicates itself dozens of times within the network of main streets, made it theoretically possible for the existing urban grid to develop according to the same principle, replicating itself in every possible direction. Unlike the English Garden Cities, this method did not "freeze" the city within a predetermined perimeter, but allowed the rapid development that is to be expected from a central city.

The model of public or cooperative ownership of lands was adopted by the Zionist Movement in the establishment of the communities of the Jezreel Valley. Tel Aviv, on the other hand, was established mainly by bourgeoisie with private capital, who purchased the land in order to build apartment buildings. Cooperative residential neighborhoods, called "workers' homes" were constructed around the city (see pages 74-76).

A clear hierarchy of four types of streets was determined: The first two were for rapidly moving traffic, channeling it from south to north and from west to east. The third was for slow and intimate traffic within the block, and the fourth was for pedestrians only. This ensured a healthy separation between various activities and also strengthened the principle of zoning that Geddes supported. Moreover, the separation of the residents of the block from the noise and dust of the main streets, the intimate street section dipped in green, and the public gardens in the middle of the block, encouraged development of neighborly relationships and an active social life.

A comparison between the Geddes grid in Tel Aviv and the Chandigarh grid in India (established in 1953 for 150,000 inhabitants and planned by a team of architects headed by Le Corbusier) highlights the inflexibility and greater complexity of the grid at Chandigarh. The Chandigarh grid was created by a hierarchy of seven different roads, three of which were intended for pedestrians - two within the block and the third traversing all the sectors as a green axis that united the public functions. In both cases, planners foresaw the block as a means of developing social life. In Tel Aviv planning was for an egalitarian society that had been gathered from the Diaspora, and in Chandigarh Le Corbusier saw the block as a place where 13 different social castes among the local population would blend.