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Publisher: Routledge

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## Journal of Israeli History: Politics, Society, Culture

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/fjih20>

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To cite this article: Hadas Shadar (2013): The evolution of the inner courtyard in Israel: A reflection of the relationship between the Western modernist hegemony and the Mediterranean environment, *Journal of Israeli History: Politics, Society, Culture*, 32:1, 51-74

To link to this article: <http://dx.doi.org/10.1080/13531042.2013.768031>

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## The evolution of the inner courtyard in Israel: A reflection of the relationship between the Western modernist hegemony and the Mediterranean environment

Hadas Shadar\*

Spatial and formal components constituted the basis of pre-World War II modernist architecture. However, at that time, the courtyard next to the house did not receive the same focused attention. The reawakening of attention directed towards the inner courtyard that came after World War II affected also the housing planning in Israel. The article analyzes the incorporation of an inner courtyard as part of Israeli institutional architecture in four housing models. Reviewing projects that deal with the definition and construction of a house reveals that the Israeli origin and use of the inner courtyard reflected cultural and conceptual values of both architects and residents.

**Keywords:** Israeli architecture; inner courtyard; public housing; modernism

The current study aims to follow the shifts that occurred over the years in the attitude of the Jewish population in Israel to its physical and cultural environment. These shifts reflect the inherent conflict between the Israeli hegemony, which was rooted in a Western modernist culture, and the Mediterranean and Middle Eastern surroundings. A careful review of the adjustments and developments of the inner courtyard, situated within the public housing structures built by the Housing Ministry during the first three decades of Israeli statehood, reveals the inner tensions that existed, which were not necessarily expressed through words, but rather through modifications to the space and its use. The sources of inspiration behind the planning provide a narrative which is not always clear in architectural terms, and the rhetoric accompanying the architecture occasionally tells more about the aspirations than about the realities of yesteryear.

This study is grounded in an architectural perspective. It employs architectural analytic methods, such as analysis of plans and aesthetics, a critical examination of texts and post-occupancy evaluations. Architectural drawings, site visits, interviews and original documents are primary resources. Subsequently published studies are the secondary resources. Reference to additional professional literature that focuses on architectural precedents outside of Israel complements the research framework.

The study consists of four parts. The introduction provides definitions of the essential architectural terms, such as *architectural modernism* and *vernacular architecture*, as well as a brief background description of the state of construction in Israel's early years of statehood. The second part of the essay describes four architectural projects that included inner courtyards. The third part discusses the sources of inspiration behind the four projects and the rhetoric surrounding each of

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\*Email: [hadass2@013.net](mailto:hadass2@013.net)

them. Finally, the summary interprets – through architecture – the relationship of the hegemony and of the population with the physical environment that surrounded it.

## Introduction

### *The revival of the courtyard: Modernism and the critique of modernism*

Understanding the twentieth century's architectural engagement with the inner courtyard requires a review of past cultural movements, specifically of modernism and the critique of modernism, since the inner courtyard was a development of the latter. In the current article, which focuses on urban design and architecture, modernism is defined as the manner in which design and architecture were influenced by the reigning belief that human intelligence and wisdom had the power to affect and control reality, by means of – among other things – analytic planning. This belief, which became entrenched mostly towards the end of the nineteenth and at the beginning of the twentieth century in industrialized countries of Europe and North America, perceived the human endeavor as capable of altering the chaos of Creation and the ways of humanity by organizing them according to a more just and “progressive” logic, which is the outcome of scientific research and human intellect.<sup>1</sup>

In relation to architecture, the beginning of the twentieth century saw the development of innovative ideas regarding the role of architecture. The invention of reinforced concrete at the end of the nineteenth century generated a new twentieth-century aesthetic – the modernist aesthetic, which featured square structures and glass walls.<sup>2</sup> Fantastic modernist urban plans envisioned a future city of high-rises scattered along open spaces (Figure 1).<sup>3</sup> The approach to architectural planning became more analytical.

As a result, the residential apartment took on a different structure: modernist planning canceled the typical organization in which one room led into another, since rooms were used for various and distinct types of activity. The modernist apartment created a separation between public spaces used during the day (kitchen and living room) and private spaces used at night (bedrooms and bathrooms). No room was to serve more than one type of activity, so that each room had its own designation, for example, the bedroom for sleeping and the study for working. The initial motivation for this change was socially based, namely, to create a small and efficient apartment for the urban laborer.<sup>4</sup>

Many new neighborhoods were built after World War II, informed by modernist urban design and influenced by modernist aesthetics and a modernist approach. The construction proceeded in a rather absurd manner, as the belief in “progress,” which had been the underlying theme of modernism and particularly of the modernist urban approach, was no longer relevant. In fact, those very same years saw the development of a critical movement against urban modernism. Leading the wave of criticism was a group of young architects of various nationalities who had been educated on the concepts of modernist architecture and modernist urban design. Yet unlike their predecessors, the younger generation of architects wanted to shift the emphasis from the technological values of modernist urban design to its social, human, and cultural values.

The most significant movement of architectural criticism was Team X, which was established by these young architects in 1956. At the Tenth International Convention of Modernist Architects, the young architects, rebelling against the modernist architects,

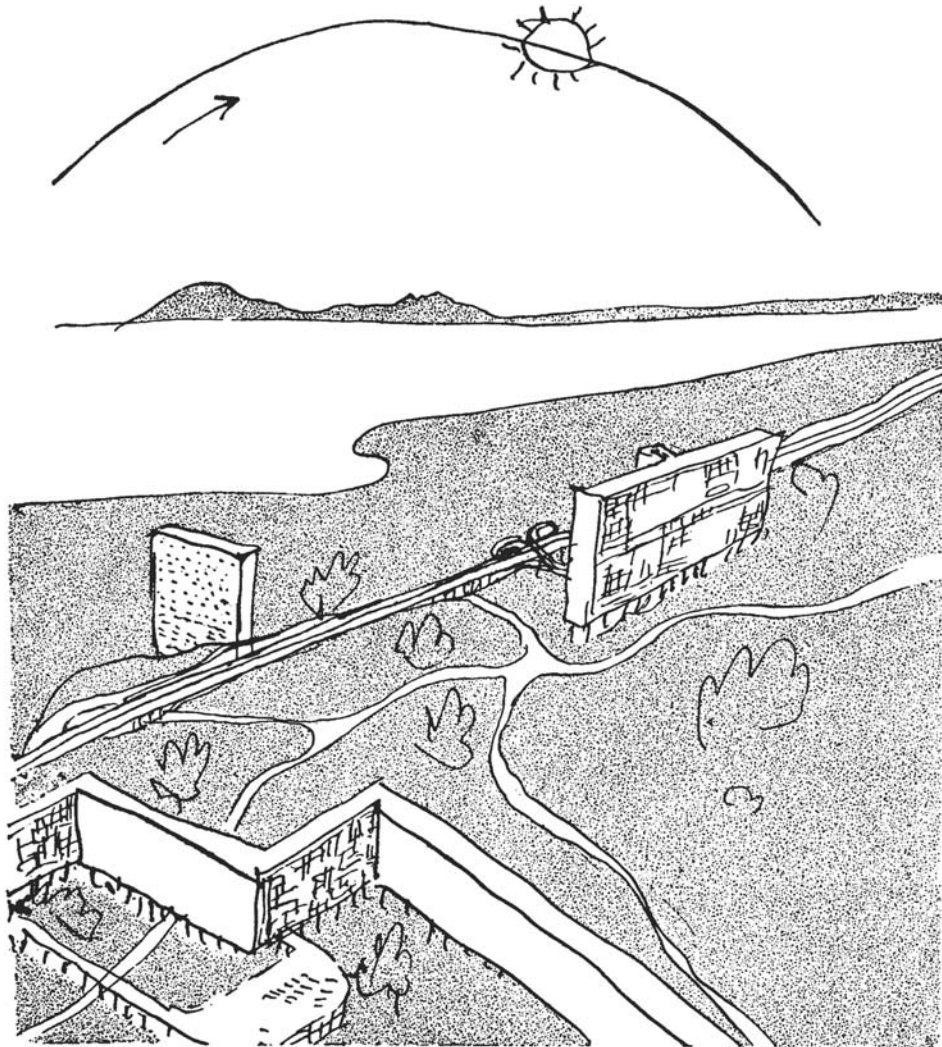


Figure 1. Le Corbusier, Modernist Urban Design: Wide open spaces with plans for multi-level residential buildings. From Le Corbusier, *Concerning Town Planning*. London: The Architectural Press, 1947 [1946], 77.

attempted to identify a suitable physical plan for founding vibrant communities;<sup>5</sup> indeed, they sought a physical plan that would create a relaxed and cozy home-like feeling within public spaces. It was no coincidence that part of their approach was based on an architecture that Western progress had yet to discover, namely, evolutionary architecture.<sup>6</sup> Evolutionary architecture is that which is developed by local inhabitants over hundreds of years, *without architects*. It contains meanings that are culturally and geographically appropriate, in terms of the climate, as well as the materials available and the local technological developments. In professional circles, this is termed *vernacular architecture*.

The attraction of vernacular architecture stemmed from the understanding that the social, human, and cultural values that had been lost to industrial society could be found in this approach to architecture.<sup>7</sup> The greatest demonstration of vernacular architecture's search for lost values was in 1964 at the *Architecture without Architects* exhibition held in New York, which displayed beautiful photographs of self-built structures found in northern Italy, Greece and Yemen, and elsewhere.

The study of vernacular architecture focused on the symbiotic integration of interior and exterior, the private courtyard and the residential home. The significance of the courtyard was extolled as serving as both an extension of the living quarters and, in the case of public courtyards, as a "home to the community." One of the famous outcomes of this approach is the cluster of connected buildings planned by the Israeli architect Moshe Safdie, who at a later stage would plan the Israeli city of Modi'in as well as the new departure terminal in Ben-Gurion airport. In 1964–1967, Safdie designed his first major project in Montreal, Canada, called "Habitat," a structure in which box-like apartments were clustered one on top of the other with spaces interspersed among them. Safdie claimed to have been inspired by the heaps of square houses seen scattered over the slopes in Arab villages (Figure 2).<sup>8</sup>

The inner courtyard was also revived. The inner courtyard, surrounded by walls, was developed in regions with a warm climate such as the Mediterranean basin, the Arab Peninsula, and the Far East. There, this roofless space functioned as a large room in which the entire household could gather and which functioned as the center of the



Figure 2. Moshe Safdie's *Habitat 67* in Montreal. The complex relationship between interior and exterior characterizes the critique of modernism. From: ja.wikipedia.org. Photo by YKah (2010).

family's activities. The functions carried out in the courtyard pertained to all aspects of life: from resting, cooking, and dining to receiving guests. The entrance into the rooms of the house wound through the courtyard, so that one's presence there was inevitable.

The complex relationship between exterior and interior that characterized Safdie's Habitat project in Montreal featured the vernacular inner courtyard as a component of Western modernist architecture. In Denmark, Sweden, England, and Canada, the integration of this element required adaptation to suit these countries' colder climates; hence, the inner courtyard there did not function as a central room or a gathering point, but rather as a source of fresh air and natural light.<sup>9</sup> Moreover, the inner courtyard of Western modernist architecture also served to separate the public from the private areas of the home, thus further supporting the modernist apartment plan that called for creating separate areas according to function.<sup>10</sup>

In conclusion, the post-World War II critique of modernist architecture promoted the approach of vernacular architecture and the creation of a symbiotic relationship between the exterior and the interior. It seemed that a new architectural era was ahead, one that would be characterized by an openness to cultures other than those of the technologically oriented Western countries.

### *The efficient house of early modernism in the State of Israel*

The State of Israel was established in 1948, three years after the end of World War II. Given that the social and cultural elite of the new state had either come from Europe or had been educated by Jews of European descent, the dominant culture in the State of Israel at that time was essentially European. The convergence of these two facts, that is, the period when the State of Israel was established and its European orientation, suggests that the concepts that influenced Europe in those years, namely, the demise of modernism and the beginning of the modernist criticism in the 1950s, would be expressed also in the fledgling state. Furthermore, vernacular architecture was already present in the new state: the Arab villages and the Jewish-Arab cities such as Safed featured inner courtyards situated among the houses of the extended family. The neighborhoods that lay outside the ancient walled city of Jerusalem (such as the nineteenth-century Me'ah She'arim neighborhood) included publicly shared, communal inner courtyards. Consequently, it might be expected that the upsurge of construction that characterized the early years of the state would include inner courtyards, as part of a critique of modernism.

The new Israeli architecture did indeed, feature inner courtyards, but not right away. In the first years of statehood, Jewish-Israeli architecture adhered to the spirit of modernism that was losing its charm in the Western world. The placement of houses in the earlier phases of construction followed a "rural" model, in which small houses were scattered in a wide green open space,<sup>11</sup> a trend that continued when larger houses were technically placed in expansive yet meaningless open spaces (Figure 3).<sup>12</sup>

The reason for the earlier adherence to modernist urban design was related to the belief in human ability. This conviction, which informed the early stages of modernism, was well suited to serve as a basic concept during Israel's early years of statehood. After all, while Europe was becoming disillusioned with its belief in progress, the people in Israel were just beginning to realize their greatest dream – establishing an independent state.

The second reason for the prevalence of modernist urban design in the fledgling state was much more prosaic: economic constraints. Within three years of Israel's



Figure 3. Modernist replicated houses. From Ministry of Housing, “Immigration Absorption and Housing,” in *Israel Builds* (Jerusalem: Ministry of Housing, 1964).

establishment, its population doubled, due to the arrival of Jewish immigrants from Europe and from Muslim countries. Determined to provide them with shelter, the state quickly built low-cost mass-housing projects that provided the minimal conditions necessary for housing the new immigrants. A major characteristic of these projects was the use of a replicated design in all of the residential apartments.<sup>13</sup> The efficiency of these apartments was guaranteed by adhering to two parameters: functional design and low-cost construction.<sup>14</sup> In other words, technical – practically industrial – standards served as the criteria for evaluating the design of residential apartments. At this stage, then, there was simply no room to consider the inclusion of inner courtyards in the design of residential apartments and buildings. Only gradually, as the rate of immigration decreased, other values began to be considered in the design of public housing: vernacular values. This article follows the development of the inner courtyard as one of the components in the implementation of vernacular values in Israeli architecture.

### **The house and the courtyard during the first three decades of the state: A shift from the personal to the communal**

#### *The imaginary courtyard as the center of the home*

The first inner courtyard in Israel’s public housing had an imaginary yet intense existence. It began with a residential project in 1956.<sup>15</sup> A new type of residence was

designed by the Department of Public Housing, headed by Artur Glikson. It was planned to be an especially low-cost project,<sup>16</sup> a feature afforded by using modular structures and by the fact that only half of the planned residence would be built by the Department of Public Housing.

The residential unit consisted of an L-shaped, 32 square meter apartment; at its widest point it measured no more than 5.6 meters. This was a one-family, one-level structure on a long and narrow lot, on which the apartment could be extended lengthwise (Figure 4). The designer's intent was that sometime in the future the residents themselves would undertake to expand their homes at their own expense by replicating the existing design in such a way that the final structure would contain an inner courtyard in its center.<sup>17</sup>

Like the inner courtyard adopted by Western modernist countries, here too the courtyard would serve as a natural source of light and ventilation. Furthermore, in the Israeli rendition, the inner courtyard would also separate the house's public areas from its private areas, thus emphasizing the modernist-functional tradition. At the same time, the Israeli inner courtyard, modeled on the vernacular version, was to play a prominent role in the residential experience, as the dwellers of these houses would have to walk through the courtyard to get from one side of the apartment to the other. In other words, the Israeli version was closer to the vernacular model in contrast to the Western modernist structures in which it was possible to move through the residence by walking along the perimeter of the courtyard.

Thus, the partially complete apartment with the imaginary courtyard had unique characteristics. It combined Western-modernist and vernacular concepts. The use of advanced construction methods, modernist aesthetics, the meticulous design of the apartment both before and after the expansion, and the inner courtyard's function as separating the public spaces from the private ones were all in line with the modernist approach. The influence of the vernacular model was underscored by the residents' ability to independently expand their homes as well as by the intensive use of the inner courtyard. Between 1956 and 1959, thousands of apartments throughout Israel's new cities were built according to this model.<sup>18</sup>

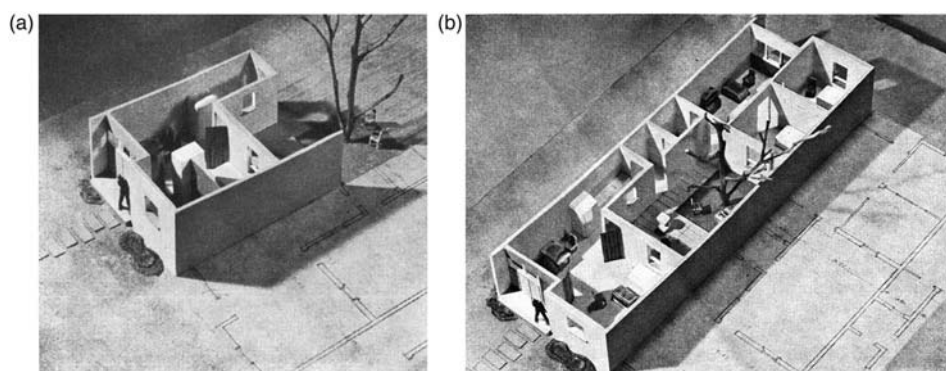


Figure 4. A model for the expandable apartment. From Artur Glikson, *Shikun ironi be-Yisrael* (Urban housing in Israel) (Tel Aviv: Ministry of Labor, Housing Division, 1959), 19. (a) A model of the partially completed apartment. (b) A model of the expanded apartment with the inner courtyard in its center.



### *The courtyard as an extension of the home*

The second inner courtyard to be integrated in a public housing project was a theoretical courtyard that was in fact implemented in its entirety. Towards the end of 1957, several apartment types were designed for the purpose of housing new immigrants. The research and subsequent designs were coordinated by the architect Abraham Yaski. The requirements posed to the designer-developers were varied and included low-cost construction, adapting the house to the demands of the local climate and facilitating the residents' ability to extend the apartment at a later date.

All of these criteria were already used in planning the first model of the apartment with an inner courtyard. Not surprisingly, the newer version, like the first, was a one-level, single-family apartment located on a narrow lot and surrounded by high walls, and like the earlier model, the design of these apartments was modernist in both appearance and function. The major difference from the first model was that in the newer apartments, the entire apartment – rather than only half of it – was intended for immediate use, and the unit was not left partially completed. A second difference was that in the newer version the inner courtyard was not centrally located but rather placed in the rear part of the house. The question then arises: should this design still be considered a house with an *inner* courtyard? Is a rear courtyard equivalent to an inner courtyard? In the context of the current article, the answers are affirmative. The rear courtyard was well enclosed by the exterior walls of both the apartment and those of the building's courtyard. Therefore, the space can be considered suitable for private, domestic activities. Furthermore, these apartments were so small that residents had no choice but to integrate the courtyard as part of the home's domestic area. The architects commented that "these small-sized apartments do not enable living in an organized fashion; therefore, it is advised to allocate an outside private area, so as to enable 'outdoor living,' at least during the warmer part of the year."<sup>19</sup>

The design stages soon proved fruitful, as within a year the project advanced to the implementation stage. A new and unique neighborhood, dubbed "the Model Neighborhood," was planned in the desert city of Be'er Sheva. Yaski, who was also in charge of this stage, defined it as suitable for a desert climate and for a population of immigrants with limited means.<sup>20</sup> An outline was established for the neighborhood's layout: three areas would be enclosed and defined by elongated buildings that formed a wall of sorts, with three towers. Within these areas, the buildings, developed by architects Nachum Zolotov and Dan Chavkin, formed low and dense clusters of courtyard apartments, which in turn created a unique, casbah-like composition. Each residential unit consisted of a complete, elongated, single-family apartment of one or two stories, with two adjacent courtyards: a small one in front and a larger one in the rear of the apartment, and both courtyards were enclosed by high walls (Figure 5).<sup>21</sup> The theoretical stages of research and design proved to be worthwhile.

### *The courtyard as a shared home*

In 1961 two more projects were planned based on the inner courtyard concept. One was dubbed by its residents "the Casbah," and the other's houses were referred to as "Patio Houses," and both were introduced in newly established towns. The Casbah project, which was planned by architects Abraham Ventura and Yehuda Drexler, was built in Nazareth Illit, opposite the Arab town of Nazareth, and the Patio Houses were built in

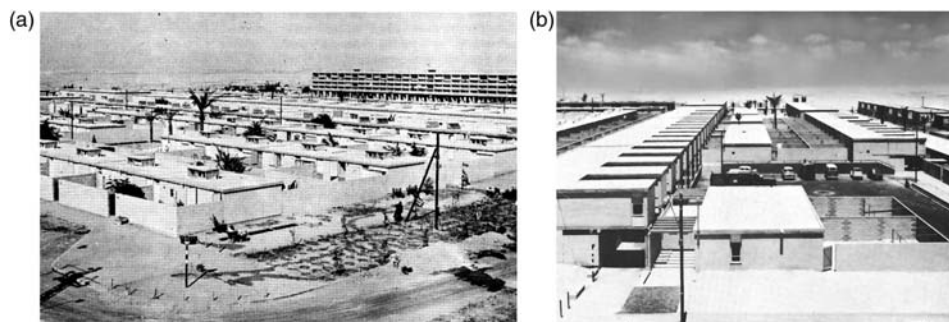


Figure 5. Courtyard houses in the Model Neighborhood. (a) A view of some of the single-level courtyard houses designed by Nachum Zolotov. From Yehonathan Golani and Dieter Gershon V. Schwarze, eds., *Israel Builds 1970: Interdisciplinary Planning* (Jerusalem: Ministry of Housing, 1970), 4.80. (b) A view of some of the dual-level courtyard houses designed by Dan Chavkin. From *Israel Builds 1967: New Trends in Planning of Housing* (Jerusalem: Ministry of Housing, 1967).

the desert town of Arad, in a project signed by Gerald Zaffert in conjunction with the town's first planning team.

The Casbah project consisted of tightly knit, low terraced buildings. It received its name from its residents, who immediately noted the similarity between the project's structure and that of Arab villages, in which groups of houses were typically scattered over a hillside. Each apartment enjoyed the advantage of a private outdoor space located on the roof of the unit below. These outdoor spaces were exposed, and thus did not feature the intimate quality of the indoor courtyards described in the earlier projects. By contrast, the Patio Houses had private side courtyards: the high walls surrounding the rear yards and the rear balconies created these enclosures adjacent to the apartments; thus, the conceptual design of the residential unit was similar to that of the units in the Model Neighborhood in the Be'er Sheva project. Unlike the units in the Casbah project, the Patio Houses were four stories high. However, these inner courtyards are not the focus at this point; rather, this article examines the common courtyards, in the Casbah and in the Patio Houses, that were shared by several families housed in separate residential units.

The Casbah apartments were white squares placed at a 45-degree angle to the slope, a position that heightened their plastic appearance when viewed from afar. The courtyards in the Casbah project consisted of a square space, created by the exterior walls of several apartments. Three of the apartments flanking the courtyard could be entered only by crossing the shared courtyard. At the side of the courtyard, a terraced alleyway continued uphill, leading to additional units (Figure 6).

The courtyards in the Patio Houses were similarly a shared space. In contrast to the conventional four-storied apartment buildings that featured a central and enclosed stairwell, the stairwells leading to the Patio House apartments were open to the elements, much like a patio, and hence the name given to these units. The common space of the open stairwells was effectively an inner courtyard located between the apartments.

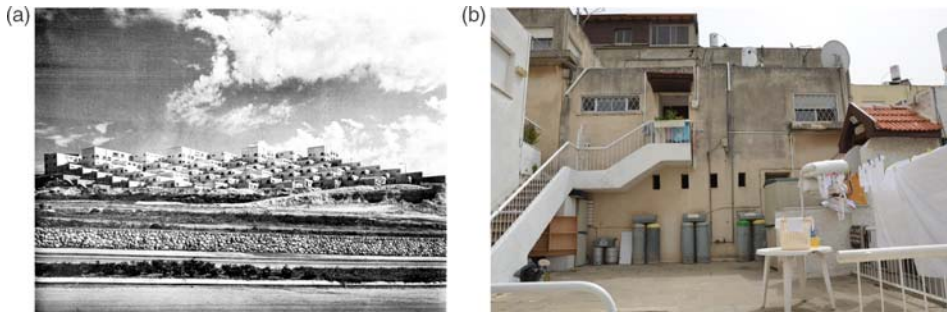


Figure 6. The Casbah neighborhood of Nazareth Illit, 1961, designed by Abraham Ventura and Yehuda Drexler. (a) A distant view of the Casbah neighborhood. From Yehonathan Golani and Dieter Gershom V. Schwarze, eds., *Israel builds 1970: Interdisciplinary Planning* (Jerusalem: Ministry of Housing, 1970), 4.61. (b) A view of the inner courtyard. Photo by author.

The neighborhood of the Patio Houses featured a grid of alleyways. One direction of the grid ran lengthwise, along the rows of adjacent Patio House units. Walking through this alley, located between two rows of apartment units, one was flanked on each side by a high and continuous wall, which extended far into the distance. It was impossible to know what was on the other side of the wall, whether it was a family courtyard or the inside of the apartment. The alleyways that ran perpendicular to the rows constituted the only opening in the rows. These alleyways led to the open staircases. Consequently, the open-air staircases fulfilled a dual function: they interrupted the mass rows of attached patio houses, and more importantly, for the 22 families that resided in the patio houses they constituted a unique, protected inner courtyard (Figures 7a–7e).

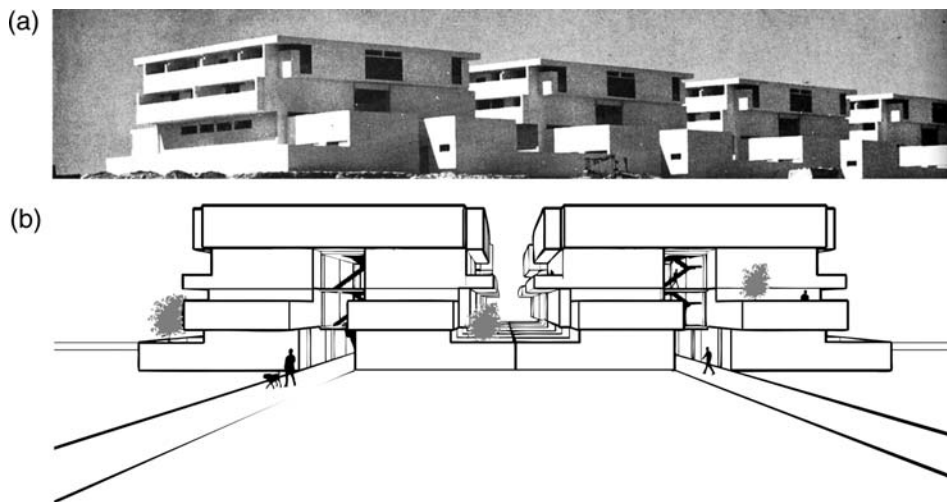




Figure 7. The Patio Houses in Arad. (a) A distant view of the Patio Houses in the early years. From *Israel Builds 1967: New Trends in Planning of Housing* (Jerusalem: Ministry of Housing, 1967). (b) An illustration of the Patio Houses cluster. Digital drawing by Asaf Yossefian and Hadas Nezer. (c) The view from the alley along the rows of adjacent Patio Houses. Photo by architect Ilana Elrod. (d) The view from the “patio alleyway.” Photo by author. (e) Looking upwards at the full height of the patio space through the stairwell. Photo by author.

### *The courtyard as a home for the community*

Following the earlier tentative efforts of Israeli architecture to create and incorporate the inner courtyard, by the 1970s – although employed in a different sense – the inner courtyard had become a ubiquitous architectural feature. Now, however, the inner courtyard was not at the center of the family unit or shared by a few neighbors but at the center of the neighborhood. In fact, in those years, it was rare to find a neighborhood that was not designed around a central courtyard. This courtyard, however, was built on a completely different scale, as it served an entire neighborhood and its community.

Placed at the center with the neighborhood designed around it, this courtyard contained the neighborhood's public institutions: the school, daycare centers, the health clinic, grocery store, and shops. All the residential buildings were set to face this courtyard, which accommodated pedestrians only. All other aspects of the neighborhood that were not included within this inner space, such as vehicular traffic, parking lots, and the rear of residential buildings, simply were not considered worthy; these had to be cast far away from the courtyard so as to maintain the courtyard's role as a place for human interaction and relationships.

This tight demarcation of the neighborhood's communal courtyard developed rather quickly. As early as the 1960s, publication of a study conducted by the chief planner of the Division for Urban Planning, Hanan Mertens, titled "From the Dwelling Unit to the Regional Unit," provided an outline for the "optimal neighborhood" (and by extension, the related concepts of optimal town and region).<sup>22</sup> The heart of the neighborhood was the central courtyard, which contained all of the major public institutions; it was flanked by the terraced apartment buildings, which faced inward. Motorized vehicles had no access to the courtyard; in fact, the parking lots and traffic roads were located behind the buildings. It was this double barrier, composed of buildings and outer roads, that distinguished this inner courtyard from other communal spaces. While the conventional urban communal spaces were open to the public and could be seen and accessed by anyone passing by, the communal inner courtyards were isolated from the public sphere, intended for the sole use of the residents of the buildings that encircled it.

In 1973 Mertens and Yehonathan Golani wrote: "In the same way that in a dwelling unit there is a central room (the living room) which fulfills the function of a social center for family life, so it is necessary to have a central area in the residential quarter, which will fulfill the function of a social meeting place and serve as a focus for the activities of the quarter's inhabitants."<sup>23</sup> Thus, it seems that the intent was to have the neighborhood's inner courtyard function as the community's living room, that is, the room where family members gather to spend time together, or in this case, where neighbors gather to spend time and interact with each other.<sup>24</sup>

Within a decade, the country was full of communal "living rooms." The most well-defined "living rooms" were built in the neighborhood of Gilo in Jerusalem: there, the inner courtyard was flanked by the sides of the apartment buildings, whose windows looked out onto the courtyard. Pedestrian traffic swarming in and out of these buildings had to traverse the courtyard, which was the heart of the residential cluster, and occasionally the heart of the entire neighborhood.

Presumably, the communal courtyard could be considered a return to the old and familiar pattern of the common urban inner courtyard that characterized the public housing projects prior to the founding of the State of Israel, specifically that of the

workers' residences, (*me'onot ovdim*), in Tel Aviv. It is reminiscent of two of them in particular, numbers 4–6 (1933–35) and number 7 (1936–37), which had been built to house the urban workers of Tel Aviv. In both the older and the newer models, the physical space of the inner courtyards was defined by the residential clusters, signifying the intended function of the courtyard as a “home” for the surrounding community. This resemblance is, however, misleading. The courtyards in the workers' residences faced the city, and the long walls of the buildings defined the streets. The communal courtyards of the 1970s, in contrast, faced away from the urban setting; all civic functions were enclosed by the residential buildings, roads, and parking lots. The urban workers' residences were built as part of an already existing and vibrant city; in contrast, the inner yards of the 1970s functioned as the central components upon which the city was established. And most importantly, the courtyards of the workers' residences were home to a community that was predefined (all belonged to the labor union), while the courtyards of the 1970s were meant to create a community by gathering a random group of individuals.

### **The sources of inspiration for the Israeli courtyard**

Reviewing these four types of inner courtyards raises two questions: What is the theoretical-architectural background from which the inner courtyard emerged? And what is the difference between the source of inspiration and the final design?

#### *The imaginary courtyard as an Arab courtyard*

The source and inspiration for the imaginary inner courtyard in the design of the partially completed apartment is unclear. Although thousands of these apartments were built in Israel, the few available documents provide only a description, without any reference to the architects' considerations or the sources of the design.<sup>25</sup> Therefore, the current attempt to identify the source is based on the documents and activities of Artur Glikson, who at that time headed the Design Department of the Housing Division. It was under his leadership that this apartment design emerged.<sup>26</sup>

Glikson's world fame is due to his adherence to the issues of ecological and regional planning. His extraordinary ecological sensitivity and his ability to recognize the connection between design on the one hand and environmental quality and landscaping on the other marked him as unique in a period that favored technology.<sup>27</sup> The words he wrote demonstrate his sensitivity: “The world's experience in planning a modern residence, the very experience from which we have learned and on which we draw, was pertinent to the climate conditions of Europe; it is now up to us to adapt to the terrain and climate of the Middle East.”<sup>28</sup> Given that the inner courtyard is one of the characteristics of the Middle East and Mediterranean basin residences, we may assume that this is its source in the case of the partially completed apartment. Furthermore, in describing the future use of the inner courtyard in the same apartment type, Glikson noted that “the courtyard offers a solution to the problem of an external living space, which is a necessity in our climate conditions.”<sup>29</sup> In other words, he favored the Middle Eastern tradition of using the courtyard as an extension of the home.

This assumption is also borne out by other oral testimonies. It appears that Glikson, acting on his ideological beliefs, often took his staff at the Design Department of the

Housing Division on study tours, to see the various terrains of the country, their characteristics, and architectural landscapes, including the landscape of the Arab villages within Israel.<sup>30</sup> Not only did he not reject this landscape as a source of inspiration (despite the fact that it was considered “old-worldly” in modernist terms), his reaction was quite the opposite: he studied this landscape as a rich source of beauty and values. In referring to the Lachish region, Glikson observed that “the old terrain of the Lachish region, which included hedges of prickly pear cacti, herds of sheep, picturesque wells, and the occasional clump of trees, no longer exists due to the new development of the area. You might say that the Lachish region has been deprived of much of its aesthetic value.”<sup>31</sup> Thus, it appears that the imaginary inner courtyard of the partially completed apartment was inspired by the inner courtyard in the vernacular residences of Arab villages.

### *The courtyard of anti-modernist critics*

The Israeli city of Be'er Sheva was built next to the Bedouin-Ottoman city, which was founded in the year 1900 by the Ottoman rulers in a central location in order to serve the Ottoman authorities.<sup>32</sup> The planners of the old city included two Arab engineers and two European architects (one Swiss and one German) and they gave the town its grid form. Thus, the city was composed of sixty squares of land, each measuring 3.6 dunams, on which buildings were constructed, with 15-meter-wide streets running between them, except for the main street, which was 20 meters wide. On these square areas, the first residents of Be'er Sheva built their homes. These residents, who were Arabs from Gaza and Hebron, as well as local Bedouins whose peripatetic lifestyle was in decline, built their homes in the Middle Eastern tradition: first, a wall of 2–2.5 meters height was built to separate the inner area from the street,<sup>33</sup> and only afterwards were the buildings erected using local stone.<sup>34</sup>

The designers of the Model Neighborhood inspected the Ottoman-Bedouin city and noted its plastic quality, and considered adaptation to the desert climate one of their most important design goals.<sup>35</sup> Given that the Ottoman-Bedouin city had been built around an inner courtyard, it would seem plausible that the origin of and inspiration for the inner courtyards of the Model Neighborhood of Be'er Sheva could once again be the local Arab style. Nevertheless, in this case, although the origin was indeed Middle Eastern, the inner courtyard was not inspired by the local precedent, but rather by the Moroccan one.

Georges Candilis, a Greek architect, and Shadrach Woods, an American architect, had designed residential homes in Morocco in 1952 and 1953. As members of the renowned Team X, which had already been critical of modernism in the 1950s, they attempted to give the houses values unique to their locale by combining the technology and aesthetics of modernism and the unique cultural and climatic characteristics of its residents and location.<sup>36</sup> The residential units thus contained a courtyard, and in the spirit of the times, they were piled up in multilevel buildings. Next to these, the French architect, Michel Ecochard, built low, densely crowded buildings, which contained an inner courtyard.<sup>37</sup> The architects of Be'er Sheva's Model Neighborhood were familiar with both of the Moroccan projects: an exhibit of the residences in Morocco was presented at the 1953 International Congress of

Modern Architecture in Zurich,<sup>38</sup> and the projects had also been described in the professional journals. Thus, it was the Moroccan model that inspired the inner courtyards of Be'er Sheva.<sup>39</sup> Unlike in the case of the partially completed apartments, it was not the local Middle East that inspired the courtyards, but rather the more remote, North African model. This time the designers did not directly adopt the perspective of the locals, but rather used a distant, slightly more Western perspective in selecting their source of inspiration.

### *The shared courtyard as a response to local landscape and climate conditions*

Nazareth Illit, in which the Casbah complex was built, was intended as a counterpoint to the nearby Arab city of Nazareth. David Ben-Gurion, Israel's first prime minister, who initiated the establishment of the new town, wanted to increase the proportion of Jews in the area; thus, Nazareth Illit was founded in 1956, and a few years later, the Casbah complex was added to it.

Arab Nazareth was a village the size of a city; it enabled its residents to combine work in agriculture with life in a very large community. Its buildings were square shapes of equal size (due to the space constraints that were typical when using stone construction technology); its streets were winding alleyways, and the entrance to the houses was through an inner courtyard. These features, characteristic of Arab architecture, infiltrated the design of the Jewish Casbah. Although it is uncertain whether the inspiration came from the Arab town across the way or from the experience of Abraham Ventura, one of the architects, who had worked on preserving the Jewish-Arab town of Safed, clearly the precursor to this courtyard design was the vernacular Arab architecture, as in the case of the yards in the partially completed apartments.

The most obvious precedent to the courtyard of the Patio Homes in the city of Arad was undoubtedly the personal experience of one of the designers. While still in the planning stages, in 1961, the team of planners, architects, and urban designers moved into the desolate desert area that was designated as the location for the town of Arad.<sup>40</sup> There, they built the first stronghold, made of shacks provided by the Jewish Agency, and these too were organized around inner courtyards. The narrow passageways between the shacks were walled in by the buildings on either side, an indication of the growing awareness of the need to accommodate living arrangements to match climate demands. This experience then affected the final urban planning of the neighborhood (Figure 8). Other prior examples, such as the Model Neighborhood of Be'er Sheva and the desert-style architecture from Yemen, provided a theoretical basis that inspired the team's design decisions.<sup>41</sup>

Alex Sher, the chief architect of the new town of Arad, wrote in 1962: "The desert climate of the region, the clear dry air, the lack of precipitation, the strong sunlight, and the constant cool breeze from the west were all indications for the planners as they made their choices and established the basic guidelines for this urban design: build highly dense and compact clusters."<sup>42</sup> The initial model for the city also shows great concern for the climate: it was a solid, dense model, as if made of clay, with only fissures outlining the passageways winding among the structures. Indeed, the fissures were an adequate model of the narrow and shaded alleyways that appeared later in the planning and the actual building of the new town.



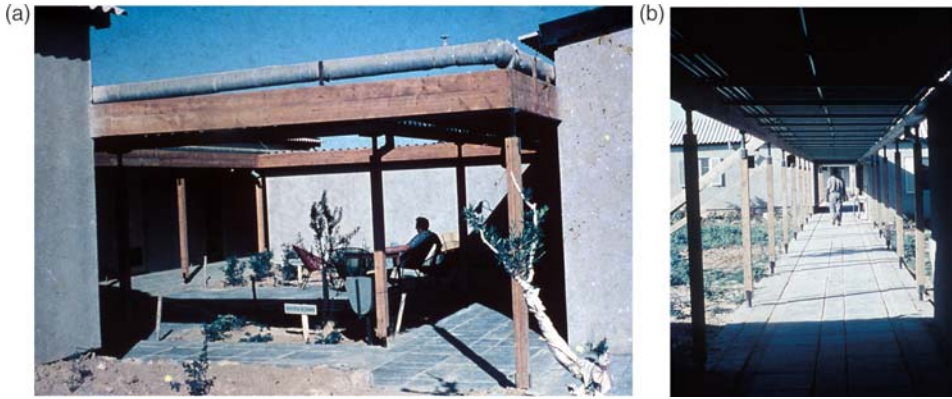


Figure 8. The designers' headquarters in Arad. (a) An inner courtyard in the designers' headquarters in Arad. Photo by architect Ilana Elrod. (b) A covered passageway in the designers' headquarters in Arad. Photo by architect Ilana Elrod.

### *The neighborhood courtyard as an instrument for social integration*

The source of the neighborhood-communal yards of the 1970s is quite unexpected, as it is clearly and directly related to the town of Radburn, New Jersey. In that North American suburban town, the private homes were designed to face an inner stretch of green lawns that were intended for pedestrians only. Cul-de-sac roads ended behind the row of residential units, where the parking areas were located.<sup>43</sup> The outline for the town of Radburn emerged forty years later in a public housing neighborhood in Israel. The major difference was in terms of the scale: instead of private homes, the Israeli version featured apartment buildings; instead of private parking, the design featured space for public parking. The precedent in this case was obvious and Israeli designers referred to it explicitly in interviews.<sup>44</sup>

As in other places in the world, the ground was ripe for selecting this precedent for the neighborhood plan: modernist urban design was failing in the Western world,<sup>45</sup> and the problem of pedestrian safety was rising, as the number of vehicles in a neighborhood grew.<sup>46</sup> However, the main explanations given for this choice were not related to architecture at all but rather to social motivations. Indeed, these were invoked quite poetically by Ram Carmi, the chief architect of Israel's Housing Ministry in 1975–79. His primary message was that architecture creates society, and architecture assembled around an inner space creates a cohesive society; consequently, the neighborhood's enclosed inner courtyard is a means of converting the neighborhood into a warm community of fellow residents. In the following excerpt, Carmi describes the activity in the courtyard by looking at the structures that enclose it:

A complex, whether it be one structure with 300 apartments or three structures of 100 apartments each . . . . From every unit it should be possible to look out on, and take part in the life that goes on in it. In fact, the "watchful eye of the housing units" is the only mean of providing a feeling of physical and psychological security without using protective fences or guards for the public system, which become in effect a neighborhood theater in which the passers-by are the players and the housing units the spectators who see, take part and protect them in the tradition of the "street theatre" that is being revived these days.<sup>47</sup>

Elsewhere he related directly to the courtyard:

These function as milestones on the paths, unique situations, series of acts, which transform the pedestrian traffic going through it into an experiential interpretation of the route. This is the living, breathing theater of the city, with its center stage located in a well-defined public space that has a character of its own, enclosed by clusters that have their own rhythm and pulse, all of which contributes to a sense of interest and vitality – these are the elements that create an emotional attachment to a place.<sup>48</sup>

The architect Yaacov Rechter summarized this idea thus: “This was an attempt to create a certain type of social unit. The internal parts allude to this.”<sup>49</sup>

Carmi saw the courtyard as fulfilling more than just a social function; for him, the inner courtyard surrounded by several residential buildings was also the answer to his search for a local architectural identity. Carmi considered the courtyard and the pedestrian traffic to and within it “a Mediterranean locale,”<sup>50</sup> thus suggesting a parallel between the neighborhood-communal courtyard and the Mediterranean-style inner courtyard.

The housing cluster is in many cases constructed like the *Mediterranean house*, with houses touching each other surrounding a small square . . . this is the core and the center of the housing cluster’s social activities . . . the inner courtyard of the cluster does not exist in its own right alone, but is part of the pedestrian traffic system of the town as a whole. The courtyards, linked by alleyways, combine into the architecture of the pedestrian traffic system which make the urban structure clear, intelligible, and a means of orienting oneself in the urban space. This system suits the climate: it provides maximum shade, and is orientated so as to catch the pleasant westerly sea breeze.<sup>51</sup>

Carmi also provided a very detailed physical description of the components and pedestrian paths of the courtyard:

The architectural elements that shape the pedestrian mall can present a translation of all components that have grown on the *shores of the Mediterranean*: the square, the street, the market, the public park, the agora and the forum . . . Vehicle transport can remain on the periphery of the precinct, since it is mainly used for leaving the precinct and not for traveling inside it.<sup>52</sup>

Indeed, in Jerusalem and particularly in the Gilo neighborhood, as mentioned previously, it appears that the plastic components together with the search for local expression and pseudoeastern structures produced the neighborhood-communal inner courtyard. The uncompromising enclosure of spaces and use of gateways and passageways fashioned the image of the Mediterranean home. The same “Mediterranean home,” containing 300 apartments built as public housing for anonymous residents, was covered in stone and boasted arches. Needless to say, this innovative design did not match the dimensions of the original Mediterranean home, nor did it reflect the evolutionary process that had led to its original creation by the local residents, as is the case in vernacular architecture (Figure 9). In other words, despite the use of proper semantics, the architectural message missed its mark: there was no connection between the original Mediterranean courtyard and the neighborhood-communal courtyard of the 1970s public housing initiatives. Moreover, with the exception of the neighborhood-communal courtyard, which had the largest dimensions, the evolution of the courtyard in the Israeli public housing projects was influenced by local climate conditions and inspired by Middle Eastern architecture. The principle that guided the creation of the imaginary courtyard of the partially completed apartments



Figure 9. A courtyard in Gilo neighborhood in Jerusalem. Architect: Salo Hershman. From Amiram Harlap, ed., *Israel Builds 1988* (Jerusalem: Ministry of Housing, 1988), 114.

was inspired by the Arab model, as was the shared courtyard of the Casbah. The Patio Houses, too, were fashioned to accommodate climate concerns, as was the courtyard in the Model Neighborhood, which was directly related to the criticism of modernist architecture in Morocco and indirectly related to Middle Eastern architecture. The neighborhood-communal courtyard was the anomaly: it derived from a social motivation and was based on a foreign, North American model, unconnected to either the climate or the architectural landscape.

### **The Israeli house: Shifting from the Near East to the Western world**

What led to this severance between the original Mediterranean model and its later Israeli architectural implementation? What caused the gap between the architects' theoretical approach and the actual architectural implementation of the 1970s? Indeed, the Gilo neighborhood in Jerusalem is in close geographical proximity to the Old City of Jerusalem and has a clear view of the town of Beit Jallah near Bethlehem, places that exhibit the vernacular architecture that had evolved over hundreds of years. In other words, the original Arab model was right next door. Furthermore, in those years, appreciation of the Arab vernacular model was greater than ever before. Why then, precisely when there was a strong desire to learn from the local Arab architecture, was the intent of adhering to local models supplanted by a social agenda, which in fact had nothing to do with the locale? Clearly, there are no definitive answers, and we can only venture to provide an interpretation based on architectural and textual analyses.

The courtyards in Israel's public housing projects indicate that it was only in the early years of statehood that the native-Arab style featured prominently in Jewish architecture. In the first nineteen years between the founding of the State in 1948 and the conquest of the West Bank and Gaza in 1967, local Arab architecture was more relevant to Jewish architects than it was from this period onward. It is no coincidence that Alfred Mansfeld and Dora Gad's design of the Israel Museum in Jerusalem evolved from the image of the Arab village of those early years, a time when the border ran through and divided the city of Jerusalem.

Interestingly, it was only after 1967, precisely at a time when tribute was being paid to the notion of integrating with the Mediterranean milieu, when arches and gateways were being built in Jerusalem and the State of Israel had authority over the Old City of Jerusalem as well as the West Bank, that the internal, personal border solidified between the Jewish and Arab populations. With the evolution of this border, despite the geographical proximity, the infiltration of the local Arab model was not welcomed, especially not in the form of an architectural precedent.

Prior to 1967, the courtyards of the public housing projects cleverly combined modernist architecture with allusions to local Arab vernacular architecture. In this sense the courtyards represented a "critical modernism": they skillfully incorporated modernist components, which represented the Israeli hegemony of that time, along with local considerations of climate. In the 1970s, however, the small family courtyard was transformed into an academic exercise, an intellectual rendition of giant hopes, which hailed from the Western world. The yards of the 1970s paid lip service to the local Arab model, but in essence they were ideologically distant and actually represented a yearning for something completely different. The courtyards no longer represented an intimate desire to be part of the region's milieu, but rather a desire to create a unified Jewish society, which the communal courtyard was intended to produce.

Two parallel developments enabled the association with the local Arab milieu prior to 1967. The first was the existence of similar tendencies in European architecture in the 1950s and 1960s, which likewise sought to incorporate expressions of nearby vernacular architecture. The second was the belief – albeit misguided – that Israel was about to become a homogeneous society. Of course, this was not at all the case, especially following the large wave of immigration in Israel's first years of statehood; however, at that time cultural differences were not openly expressed. Immigrants from Arab countries listened to Arab music in secret, and Yiddish speakers forced themselves to speak Hebrew. This society that seemed headed for uniformity provided the perfect backdrop for architects to recognize and seek to incorporate the beautiful and unusual elements of the non-threatening vernacular Arab architecture.

The desire to learn from the Arab vernacular architecture did not come to a halt following the events of 1967; on the contrary: the Old City of Jerusalem became an ever more popular reference point in the work of Israeli architects. Nevertheless, a severance did occur between the Arab model and Israeli architecture. Following the unanticipated military victory of 1967, there was a growing awareness of the inequities within Jewish society, and its inner differences were more openly noted. As a result, there was an urgent need to circumvent this threat and "save" Israeli society. One response was to turn inwards in an attempt to preserve the cohesion. Given this situation, there was no room for engaging in a dialogue with the local Arab architecture. Israeli architects absorbed this change of spirit. Superficially, the clusters with the inner courtyard

seemed to reflect the Mediterranean or Arab architecture, while in fact, they were an attempt to direct society's gaze inward, expressing a desire that was unrelated to local vernacular influences. Ultimately, the significance of the Arab model was to enable the emergence of a defined identity, a unique social Jewish identity, as much as a national architectural identity.

At this point we may ask: what was the residents' reaction to the inner courtyard? A follow-up study on the partially completed apartments found that the promise of the inner courtyards was never realized. This is surprising, since it was common for the residents in public housing built in the early years of statehood to later take the initiative and expand their apartments.<sup>53</sup> Nevertheless, twenty years after the first residents had moved into the partially completed apartments, little had changed.<sup>54</sup> The few who did enlarge their apartments preferred to build a roof over the intended courtyard in order to benefit from a large inner space – albeit without any natural source of light or fresh air.<sup>55</sup> In other words, even those who did opt to alter and renovate their homes had no desire to conduct their lives around such an inner courtyard. The fate of the shared courtyard was quite similar. In the Patio Houses of Arad and in the Casbah of Nazareth Illit, the shared courtyard was either abandoned or parts of it were appropriated by individual families. The communal courtyard model did not fulfill its intended role either. In many cases it became the site for accumulated garbage rather than a play area for the children of the neighborhood or a gathering place for forming a warm and embracing community.<sup>56</sup>

Only the personal courtyard, which was adjacent to the home and surrounded by a high wall, can be considered a success, but not as an outdoor living space in the Mediterranean spirit for which the architects intended it. It survived because it could be easily appropriated and turned into part of the interior living space, even if it meant relinquishing outdoor space and reduced access to natural light.

It seems, then, that the European model of colder climates, according to which the apartment and the courtyard are considered discrete units with separate roles, was the one to prevail. Modernist architecture also prevailed. In effect, rather than providing a platform for social, cultural, and historical developments, Israeli urban design created personal, separate, and isolated units.

In sum, the private home, as well as the Jewish national home, turned its gaze westward: the engagement with architectural models related to the vernacular Arab style dwindled. There was no sign of it in the architectural discourse of the 1980s: by then, Israeli architects were preoccupied with other issues.<sup>57</sup> Whether this trend was characteristic only of local architecture or was an expression of a more sweeping development in Israel's society and culture is a question that must remain beyond the scope of the current study.

## Notes

1. Heilbrunner, "Modernizm," 27–65.
2. Giedion, *Building in France*.
3. Le Corbusier, *The City of To-Morrow*; Le Corbusier, *The Radiant City*.
4. Wiedenhoef, *Berlin's Housing Revolution*, 43–48.
5. Frampton, *Modern Architecture*, 262–79; and Smithson and Smithson, "Garden City," 229–31
6. Webster, "Introduction."

7. Smithson and Smithson, "Garden City," 229–31; and Scott, "Bernard Rudofsky, 215–37.
8. Kohn, *Moshe Safdie*, 38–58.
9. Schoenauer and Seeman, *The Court-Garden House*.
10. Shadar, "Vernacular Values in Public Housing," 171–81.
11. Sharon, *Tikhnun fizi be-Yisrael*.
12. Ministry of Housing, *Israel Builds*.
13. Zaslavsky, *Shikun olim be-Yisrael*; Darin, "Megamot kalkaliyot ve-hevratyot"; Ministry of Housing, "Immigration Absorption and Housing."
14. Ben-Sira, *Kriteryonim*.
15. Author's interview with architect Eliahu Many, May 8, 2001. Many worked in the Design Department of the Housing Division directed by Artur Glikson in 1954–58.
16. Glikson, *Man, Region, World*.
17. Glikson, "Tikhnun ha-megurim, 152–57, and *Shikun ironi be-Yisrael*, 18–19.
18. Interview with Eliahu Many.
19. Association of Engineers and Architects, "Keren Bat Sheva Rothschild," 186.
20. Yaski, "Hakdamah, 1–5.
21. Hirsh and Sharshevsky, *Tguvot ha-dayarim*.
22. Mertens, "Dwelling Unit."
23. Mertens and Golani "Physical Structure," 66–68.
24. Wiedenhoef, *Berlin's Housing Revolution*.
25. Glikson and Piedarczyk, "Unité extensible en Israël," 94; and Glikson, *Shikun ironi be-Yisrael*, 18–19.
26. Andrew Glikson, "Artur Glikson: A Biographical Note" (unpublished ms. in author's possession).
27. See the following publications by Glikson: "The Planner Gedes," 201–203; "Man's Relationship to His Environment," 132–52; *Planned Regional Settlement Projects; The Ecological Basis of Planning*.
28. Glikson, "Be'ayot tikhnun ha-megurim," 82.
29. Glikson, "Tikhnun ha-megurim," 156.
30. Author's interview with Avigail Sheffer, June 15, 2001. Sheffer was Glikson's secretary in 1955–62.
31. Glikson, *Man, Region, World*, 39.
32. Berler, Zrahi, Pohorelis, and Rolvant, *Be'er Sheva*.
33. Tal, "Tikhnunah ve-hitpathutah shel Be'er Sheva."
34. Gradus, "Yesodot ha-tikhnun ha-ironi," 167–77.
35. Author's interview with architect Avraham Yaski, January 20, 1999. Yaski was head of the Be'er-Sheva Model Neighborhood design team.
36. Woods, *Candilis–Josic–Woods*.
37. Von Osten, "Architecture without Architects."
38. Eleb, "An Alternative to Functionalist Universalism" 55–71.
39. Author's interview with architect Ram Carmi, November 30, 1999. Carmi was a member of the Be'er-Sheva Model Neighborhood design team and chief architect in the Ministry of Housing from 1974 to 1979.
40. Shinar and Shemer, "Arad," 572–87.
41. Author's interview with architect Ilana Elrod, July 9, 2001. Elrod was one of the first planners of Arad.
42. Alex Sher, "Mahshavot yesod le-tikhnun ha-ir Arad" [Elementary ideas for the planning of the city of Arad], April 1, 1962, Archives of the Ministry of Construction and Housing, Jerusalem, office of Director General Tanne, Arad district, file 6 A-19, box C-4943.
43. Stein "New Towns for America," 219–51.
44. Author's interview with architect Michael Azmanov, January 21, 1999. Azmanov was a designer of neighborhoods intended for public housing; author's interview with architect Yehonathan Golani, December 9, 1999. Golani was a member of the Department of Urban Design from 1966, managed the Unit of Urban Construction from 1977, and was chief architect of the department from 1979 to 1984.
45. Chermayeff and Alexander, *Community and Privacy*, 207, 239–45.

46. Author's interview with architect Gershon Enkstein, January 3, 1999, on the subject of designing neighborhoods intended for public housing; author's interviews with architect Samuel Yavin November 4, 1999, November 30, 1999, February 18, 2000, November 20, 2011. Yavin worked in the Housing Division and in the Ministry of Housing in 1950–73.
47. Carmi, "Human Values in Urban Architecture," 38.
48. Carmi, "Tzamud-tzamud ba-halal," 12.
49. Cited in Tzipor, "shkhunot megurim," 11.
50. Carmi refrained from using the term "Middle East" when referring to local architecture; he preferred to see Israel as part of the Mediterranean culture. See Shadar, "Between East and West," 23–48; and Nitzan-Shiftan, "Seizing Locality in Jerusalem," 231–55.
51. Carmi "Human Values in Urban Architecture," 35–36 (emphasis added).
52. *Ibid.*, 40 (emphasis added).
53. Shadar, "She'elot tarbutiyot," 18–30; Shadar, "Patio House," 62–71.
54. Author's interview with Yosef Schweid, November 19, 2001. Schweid worked in the Planning Department of the Ministry of the Interior in 1954–64 and was a member of the Central District Committee for Planning and Construction in 1963–64.
55. Author's interview with Asher Stoop, November 16, 2001. Stoop was a civil engineer and city and regional planner, and deputy city engineer in the Municipality of Be'er Sheva, 1962–64.
56. Paldi and Wolfson, *Hipusei derekh*.
57. Shadar, Orr, and Maizel, "Contested Homes," 269–90.

### Notes on contributor

Hadas Shadar is an architect and a Senior Lecturer in the Faculty of Architecture in the Technion and in Wizo Haifa Academy of Design. She researches and writes about public housing in Israel, regarding it as one of the ways of exploring Israeli society.

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