From Frugality To Exuberance: Architecture And The City In Israel 1923-1977

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Abstract
ABSTRACT

This dissertation argues for the emergence of a new materiality in Israeli architecture in the 1950s, 60s and 70s. It examines these decades in an extended historical time frame beginning with the British Mandate for Palestine. Materiality refers to local Israeli socioeconomic and geopolitical conditions. It also reflects the literal use, handling and finishing of materials in architecture. During this period first and second stages are described. The first was shaped by objective circumstances in which architecture operated in response to scarcity and demonstrated a realist attitude, one also embedded in the concept of asceticism. It was manifest in restrained formal gestures, abstention from material extravagance, the use of local materials, and an appeal to rational building procedures. The second stage emerging in the 60s had a different syntax. The analytical, skeletal frame constructions of the 50s turned synthetic, monolithic, and earth-bound. Compositions turned sculptural and exuberant. An appeal to the architect's expressive ingenuity became a recognized design objective. The issue of banality versus extraordinariness in design surfaced at this point.

My analysis of materiality is based on the following disciplinary themes: typology, public space, craft, and topography. These were dimensions of a broader search for a situated architecture undertaken by Israeli architects since the 1930s in which they sought to localize the importation of modern architecture from Europe. Typology offered an opportunity to synthesize modern building practices with vernacular models. It revealed the reciprocal interchange between cultures. Architects and planners perceived public space as a means to consolidate new communities, and represent the collective ethos of the new nation. Public space regained its value as a structural constituent in built fabrics. Building craft and use of local materials made architecture place-specific, of-its-time. Topographical awareness, and the mutual inscription between building and setting represented an ongoing desire to overcome the lack of an unmediated connection between the immigrants and their old/new territorial home. These disciplinary themes address a variety of scales from detail, building, neighborhood, city, and region. They demonstrate how Israeli architects adjusted the modernist appeal to abstraction and universalism with a perceptive recognition of their concrete reality.

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FROM FRUGALITY TO EXUBERANCE:

Daphna Half

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in
Architecture

Presented to the Faculties of the University of Pennsylvania
in
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For my parents

Shelly and Robert Half
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This research most likely began unintentionally while I was working as an architect for Ada Karmi-Melamede in her practice in Tel Aviv. Karmi-Melamede often advanced theoretical discussions, which accompanied the routine work in the office, and while we were laboring on 1:25 wall sections and precise detailing, her care and awareness of a larger context always seemed present. I am deeply grateful to her for teaching me the practical knowledge involved in architecture but also for encouraging me to engage in theoretical studies, beginning with the pursuit of a degree in philosophy while still working in her office. Ada has been a constant pillar of support and encouragement throughout this research, and her valuable insight helped me formulate many of the issues presented. It was during this decade at her office where I met her older brother, Ram Karmi, who practiced in an adjoining space. Karmi often fervently discussed many of the issues presented in this dissertation and when I approached him in 2012 was happy to share his unpublished texts for the purpose of this study. Karmi died in 2013. I would like to thank his wife Rivka Karmi for allowing me complete access to his and his father’s archive, both not yet methodically organized at the time. I would also like to thank Amnon Rechter who shared the materials of his father and grandfather’s archive, Yuval Danieli and Tamar Amiran from the Mestechkin Archive in Kibbutz Givat Haviva, and Rivka Pershel Gershon from the Tel Aviv Municipal Archive who helped me sort through material I was not even aware I was looking for.

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ABSTRACT

FROM FRUGALITY TO EXUBERANCE:

Daphna Half
David Leatherbarrow

This dissertation argues for the emergence of a new materiality in Israeli architecture in the 1950s, 60s and 70s. It examines these decades in an extended historical time frame beginning with the British Mandate for Palestine. Materiality refers to local Israeli socioeconomic and geopolitical conditions. It also reflects the literal use, handling and finishing of materials in architecture. During this period first and second stages are described. The first was shaped by objective circumstances in which architecture operated in response to scarcity and demonstrated a realist attitude, one also embedded in the concept of asceticism. It was manifest in restrained formal gestures, abstention from material extravagance, the use of local materials, and an appeal to rational building procedures. The second stage emerging in the 60s had a different syntax. The analytical, skeletal frame constructions of the 50s turned synthetic, monolithic, and earth-bound. Compositions turned sculptural and exuberant. An appeal to the architect’s expressive ingenuity became a recognized design objective. The issue of banality versus extraordinariness in design surfaced at this point.

My analysis of materiality is based on the following disciplinary themes: typology, public space, craft, and topography. These were dimensions of a broader search for a situated architecture undertaken by Israeli architects since the 1930s in which they sought to localize the importation of modern architecture from Europe. Typology offered an opportunity to synthesize
modern building practices with vernacular models. It revealed the reciprocal interchange between cultures. Architects and planners perceived public space as a means to consolidate new communities, and represent the collective ethos of the new nation. Public space regained its value as a structural constituent in built fabrics. Building craft and use of local materials made architecture place-specific, of-its-time. Topographical awareness, and the mutual inscription between building and setting represented an ongoing desire to overcome the lack of an unmediated connection between the immigrants and their old/new territorial home. These disciplinary themes address a variety of scales from detail, building, neighborhood, city, and region. They demonstrate how Israeli architects adjusted the modernist appeal to abstraction and universalism with a perceptive recognition of their concrete reality.
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PREFACE

This dissertation argues for the emergence of a new materiality in Israeli architecture in the 1950s, 60s and 70s. Two senses of the word materiality are intended. First, it refers to local Israeli socioeconomic and geopolitical conditions. Materiality in this sense is an objective substructure of cultural and, indeed, architectural phenomena. Another orientation will also be studied: the literal use of materials in architecture, their production and construction techniques, as well as the processing, handling and finishing of materials for building.

In this two decade-long period first and second stages will be described. The first stage responded to the objective circumstances in which architecture operated in response to scarcity and demonstrated a realist attitude. These developments were tied to pre-state ascetic culture and post-state austerity politics, but were also affected by changes within the discipline of modern architecture, which had its own tradition of simplicity and asceticism. Typically manifest in restrained formal gestures, abstention from material extravagance, the use of materials at-hand, and an appeal to a concrete and rational credo, the architecture of the early years of statehood later evolved into a different syntax parts of which had little in common with the earlier principles. The second stage, during the 1960s, included a more declarative handling of materials as well as formal and compositional changes. In some cases, an appeal to the architect’s expressive ingenuity became a recognized design objective. The issue of banality versus extraordinariness in design surfaced at this point.

Current Israeli historiographies helpful throughout my study were Zvi Efrat’s The Israeli Project (2004), and Sharon Rotbard’s Avraham Yasky, Concrete Architecture (2007). Both have helped me gain a better understanding of the symbolic dimension exposed, wet-construction concrete acquired especially in the 1960s. Associations with brutalism have been noted, and
particularly revealing was Efrat’s assertion following, I assume, Ryener Banham’s, that brutalism was a catchword ultimately applied to many different projects. It was this observation that prompted me to research the history of brutalist architecture in post-war England, through which I gained a more nuanced understanding of its inception and objectives. This helped me contextualize the exposure of building materials - not only concrete - in Israel earlier, in the 1950s. It also framed my argument about the different stages of brutalism in Israeli architecture. While Efrat has termed the architecture of the 50s “grey” modernism, suggesting it was a reflection of anti-sentimental bureaucratic functionalism, I hope to show that it was also related to an ethic and aesthetic of modesty, moderation and restraint. In addition, I will argue that this material “grayness” did not sacrifice craft techniques having to do with architectural detailing or a variety of material finishes. Although these practices were supposedly at variance with an architecture strictly evaluated by its use value, I hope to show that they were not an instance of superfluous decoration or an after-thought applied to an otherwise practical structure but inherent to its making and not at all inconsistent with but, in fact, accentuating its structure, construction process and functionality.

This trajectory was joined by other disciplinary themes reemerging during the period under study. Following the declaration of the state in 1948, Israel was faced with unprecedented immigration waves. The immigrants were mainly Holocaust survivors from Europe, and from 1950 to 1951 included Jewish refugees from Asia and Africa, from mostly Arab countries in which Jewish communities were believed to be under grave danger. This vast immigration wave doubled the country’s population within the first three years of its existence. Recovering from the First Arab-Israeli War, and struggling under the predicaments of an economic recession, the new state launched a comprehensive decentralizing program and financed substantial housing projects for its vastly growing population. The standardized archetypes produced and their unqualified
repetitive regimentation began to draw criticism from across the architectural profession. Planners began seeking ways to “humanize” future developments.

In what follows I show that some strains of thought in Israeli architecture understood environmental planning, “comprehensive planning” and an “ecological” approach to design as pointing to that objective. It was argued that the nexus between the individual living unit and the greater environment could not be severed and that space became humanized when it was both a distinct entity and linked to and associated with other spaces in an environmental continuum. The narrow, functionalist focus on utility and the provision for physical shelter was no longer considered sufficient. In pursuit of a more humane dwelling environment, planners sought to assume architecture’s traditional role of shaping a particular social ethos by gathering individuals into a community with shared values.

This understanding stimulated research for new dwelling patterns by leading architects such as Dov Karmi, Zvi Meltzer and Ram Karmi, Zeev Rechter and Yaakov Rechter, Avraham Yasky and Amnon Alexandroni, Dan Havkin and Nahum Zolotov, Munio Gitai Weinraub and Al Mansfeld, Yitzhak Perlstein, Artur Gikson and others. Pointing to some of the ensuing architectural types, evidently quite varied, I will argue that the desire to reflect this nexus also invoked a more extreme type, some qualities of which were thought to have been present in historic urban fabrics. I have in mind the Israeli rendition of the megastructure. Stemming from a desire to reinstate the significance of a legible and cohesive urban fabric and reassume architecture’s role as a social condenser, this type ultimately blurred scalar distinctions and transformed the subtle analogy between building and city into a condition in which the two were rendered indistinguishable. Consequently, I will question whether the desire to articulate clearly defined urban space had not amounted to an embodiment of pseudo urban space, therefore, impeding the realization of the megastructure’s social intentions.
Another theme studied in this dissertation, which has been largely overlooked by current Israeli historiographies, is the planning of public space. The discourse on public space, as a vital ingredient in establishing a community and representing its values, gained extensive focus in the late 1950s and 60s. Several approaches regarding its planning in Israel will be examined closely. Although public space was treated as a secluded and distinct domain in many of the Israeli New Towns, I hope to show that in Tel Aviv, which already had a legible urban fabric, it assumed a different realization. Here, the question of public space recognized the various “publics” for which it was intended and employed a stratified understanding of the social practices it was to accommodate. I believe that in such instances the notion of plurality and the idea of integrating differences generated the making of a successful public domain.

I hope to show that the exposure and expressive treatment of building materials, the aesthetics of concrete architecture, and the renewed concentration on the public realm, were dimensions of the broader search for a situated architecture1 undertaken by Israeli architects in the first few decades of statehood. Articles by Alona Nitzan-Shiftan, particularly Contested Zionism – Alternative Modernism: Erich Mendelsohn and the Tel Aviv Chug in Mandate Palestine (1996), and Seizing Locality in Jerusalem (2004), have been illuminating in this respect. Nitzan-Shiftan has argued that Sabra architects (architects who were either born in Israel or immigrated at an early age and were, therefore, active in the post-state period) “campaigned to localize Israeli architecture.” She has maintained that they were critical of the works created by the preceding generation – “the founders of Labor Zionism.” It is my contention, however, that the question of a localized idiom was also apparent in earlier pre-state years, particularly in debates between the “orientalists” and “modernists” in the 1920s and 30s, although it did gain momentum with the formal establishment of the state in 1948, largely but not exclusively through

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1 I am aware of the history this term carries in architectural discourse and will address it specifically throughout the dissertation.
the work of native (first-generation-born Israeli) architects. I will argue that the dialectic narrative of seeking to create something new while achieving a sense of belonging had also guided architects before independence to seek ways to transition from an imported to a localized modernism. It is my contention that in the prolonged search for situatedness also referred to in other disciplinary terms as modern regionalism, critical regionalism, or other modernism,\(^2\) a typological design method was proposed by architectural historian Julius Posener as early as 1937. I will also show that in the post-state period making modern architecture place-specific was addressed through the use and exposure of local materials, as well as the attunement to topographical conditions. In this sense, the idea of locating modern architecture in a specific place and culture had both a temporal and a spatial implication. While it was predicated on a historical disciplinary leaning – implied in typology – it also attested to the discipline’s responsiveness to concrete present conditions and opportunities.

My intention is also to draw attention to cross-disciplinary interchanges between architecture and other cultural and artistic fields. Like other plastic artists, writers, and poets in Israel during the period under study, architects were occupied with the notion of building a new state and constructing a new national identity. As several disciplines were engaged in this effort, I will examine some of the conceptual exchanges between architecture and the concurrent discourse in other cultural fields, some of which had a profound impact on the concept of Israeliness. The architectural turn to the landscape, and the dialectic of locality and nationality

\(^{2}\) These idea were developed by the following authors:
For more recent studies on the concept see Tom Avermaete, Another Modern, The Post-war Architecture and Urbanism of Candilis-Josic-Woods, (Rotterdam: NAi, 2005).
versus universality will be considered along with the parallel discourse in painting, for example, some factions of which sought universalism and abstraction but maintained a local voice.

Chapter outline

**Chapter one** gives an overview of architecture in Palestine during the British Mandate. It specifically examines the narrative of belonging in the context of Orientalist and modernist paradigms and addresses the issue of *representation and method* in design. The main question this chapter addresses is: *How did architecture try to assume a sense of belonging while still adhering to modern procedures?* I will argue that after an uncritical importation of modern architecture from Europe, particularly Germany, architects in the *Yishuv* (the Jewish settlement in Palestine before 1948) began to widen their perspective of modernism, understanding it not as entailing a single style and technique devoid of place-specific inflections. Predicating my thesis on Julius Posener’s text *One Family Houses in Palestine* published in *Habinyan* in 1937, I hope to show that belonging was offered not through emulating local vernacular styles or traditional methods of construction but through a *typological* approach to design in which architecture’s tradition and its modern practices were not mutually exclusive. The theoretical thesis of this chapter is that in typology as a design method, trans-historic disciplinary constituents, natural conditions and issues relating to social, economic and political phenomena form a hybrid of relationships, which create the architectural artifact, render it place-specific, of-its-time but also part of a traditional continuum. Finally, the chapter concludes with a series of examples in which a scalar notion of the *courtyard type* was employed throughout Israel in the first decades of statehood.

**Chapter two** examines the ideas on public space as they unfolded in the history of planning Tel Aviv. It begins by introducing Patrick Geddes’ master plan developed in the mid
1920s and examines the city head engineer, Yaakov Ben Sira’s concept of dispersed urban centers for the purpose of giving civic and cultural expression to each neighborhood. The main case study for this chapter is the civic culture center adjacent to the Habima National Theatre. During the 1950s and early 60s the Israel Philharmonic Orchestra’s Mann Auditorium (since 2013 named Charles Bronfman Auditorium), the Helena Rubinstein Art Pavilion and Yaakov Garden joined the National Theatre to form one of the seminal culture complexes in the city. George Baird’s *Space of Appearance* (1995) was a helpful source for theorizing the qualitative aspects of a viable public domain. Building on his concentration on the idea of plurality and heterogeneity, I hope to show that by synthesizing institutions of national import and the accommodation of local residents through formal means and programmatic characterization, architectural design demonstrated a stratified concept of the public domain in which a range of “publics” was accommodated, a range of uses addressed, and, correspondingly, differentiated architectural scales employed. I will show that in this particular cultural complex in Tel Aviv, public space was also understood as a social condenser able to reflect and construct a new civic identity. This was closely linked to the question of monumentality or, rather, “new monumentality” as it was proposed post World War II. A helpful text guiding me through this study was *Nine Points on Monumentality* (1943) by Sigfried Giedion, Josep Lluis Sért and Fernand Léger, although the proposition for a new monumentality in their argument differs from the one proposed in the Israeli case. My claim is that in Israel a *modest monumentality* rejected the historic monument’s subject of representation and dismissed its formal methods. *Modest* monumentality was influenced by objective material constraints as well as by Labor Zionism’s culture of frugality; themes further elaborated on in chapters five and six.

**Chapter three** marks the dissertation’s transition into a different design scale. It introduces the territorial and demographic reconstructive initiatives, which characterized Israel’s
first master plan. Predicated on decentralization, the plan will be seen as continuing pre-state Social-Zionist policies. Its foremost contribution was in initiating the planning of the mid-sized new towns across state territory. As in other parts of the world, the concepts of the neighborhood unit and functional use zoning will be seen as key features in the design. The aim to build cost-effective, hygienic housing was largely modeled on the concepts of Existenzminimum and was intended to provide minimum subsistence requirements. It focused on perfecting the functionality of the individual living unit for a “standard immigrant family”. The chapter will also include the emerging critique against a positivist functionalism and its focus on the reduction of the individual living unit to a matter of rudimentary material provision. As I have briefly mentioned, this self-critical reflection caused planners to re-acknowledge the other purposes of architecture, mainly its reflection and shaping of a way of life, in which material demands are necessary but not sufficient. Artur Glikson’s posthumously published book The Ecological Basis of Planning (1971) and his appeal to understand individual dwelling units as inseparable from and, indeed, dependant on their social and natural settings helped me understand this disciplinary turn and examine some of the new types that consequently emerged.

Chapter four begins by analyzing one of these types. Completed in Beershaba in 1960, it was a response to the vacuous, dispersed, and incoherent morphologies of the new towns, which sprung up across state territory with little attunement to the specificities of social practices, location or climate. The loss of a legible urban fabric and the disintegration of historic urban elements as the street and square urged architects to conceive new types in which functional use zoning and decentralization were replaced with a consolidation of multi purposes in one structure. Although not referred to as one at the time, the building reflected megastructural thinking. Megastructure, as its name suggests, was a large and, theoretically, expandable infrastructural frame. Insightfully termed building-as-city it emerged as a response to the urban crisis, largely
attributed to Functional City principles. In some places, though arguably not in Israel, it also drew inspiration from techno-positivist utopias. An important source frequently referenced throughout the chapter is Reyner Banham’s *Megastructure: Urban Futures of the Recent Past* (1976). This book established the historic and theoretical grounds for the type and helped me articulate the uniqueness of its case in Israel. Distinction between perennial architectural elements and those subject to change, which had typically been at the core of megastructural thinking in other parts of the world, did not inform the Israeli type, which was characteristically monolithic and earth-bound, evoking associations with permanence and solidity. I will argue that the Israeli megastructure sought to incorporate traditional urban elements, such as streets and squares, in its effort to militate against the breakdown of urban life. Ultimately, this chapter will question whether in its vast dimensions and monumental appearance – lacking that original promise of flexibility and adaptability – these elements remained limited to the power of pure iconography. It will essentially question whether the megastructural pursuit for a renewed urbanism was even possible, given the irony of suggesting heterogeneity and plurality in a single building.

Following this example – and recognizing a methodical turn in terms of scale – I will then consider what had become in the 1960s a leap from architecture *and* city to architecture *as* city, for buildings by then had started to assume territorial dimensions. Place form became territorial form.

The last part of this chapter will reiterate the issue of typology as expressed in Ram Karmi’s text *Mediterranean Architecture* (1959), in which he sought to “nativise” the architecture of immigrants into an “authentic” architecture of Israelis. Karmi, I hope to show, conceived his work as responding to a loss of center, which is to say, a loss in architecture’s gathering power. Once again, however, I believe the analyses will confirm that centers are worthy of their name only when they are successful in gathering a multitude into a community and when they are able
to be experienced as a place where the values of that community are visibly apparent. Denied this opportunity, they remain empty iconographic substitutes.

In chapter five I examine how the idea of expressive restraint as a reflection of meager means and a culture of frugality affected the discipline of architecture and played a determining role in architectural discourse before and after the establishment of the state of Israel. Influenced by Labor Zionist ideology and its pioneers’ ideal of asceticism, this appeal to simplicity also echoed an earlier 20th century disavowal of excess and superfluity in architecture. Though it appeared to be the expected result of rationalism and instrumental thinking with its demand to exclude anything that does not comply with its economic imperative, and seemingly invoking a dualism between beauty and utility, what was actually at stake was an insistence that accommodation and utility be aligned with the representation of a collective ethos. The divide between the beautiful and the useful, burdening architecture since the 18th century and certainly amplified by 20th century rationalism and techno-scientific determinism, was renounced. The superfluous and unnecessary were acknowledged as such only when they could not reflect this ethos.

In this chapter I will examine how the appeal to make do with scarcity had both ethic and aesthetic implications. I hope to show that poverty was not shunned but made visible. Examining comparable examples elsewhere and indebted to Reyner Banham’s historiography of brutalism The New Brutalism: Ethic or Aesthetic? (1966), it will be my contention that a “new style” had emerged in Israel in the first decade after independence in which architectural creativity was born out of a perceptive recognition of the reality and paucity of conditions. I will term this “new style” the first phase of Israeli brutalism and in the following and final chapter hope to explain how this profoundly ethical basis of design was subsequently aestheticized.
The first part of chapter six follows the proposition introduced at the end of chapter five. Here, I will suggest that what started as a response to scarcity and developed into an ethic and aesthetic of frugality materialized in the 1960s as a different, even contradictory, design practice. I want to show that Israel’s second decade witnessed the emergence of the second phase of Israeli brutalism in which the earlier rigorous analytical, modular, and skeletal building had become synthetic, earthbound and monolithic. Correspondingly, the exposure of building materials, based as it was in a desire to render architecture more “sincere” and “place specific,” evolved into a declarative materiality in which exposed concrete had become part of a conscious will to symbolize. A retreat from the earlier questions pertaining to architectural restraint and measure was also noticeable. It surfaced in the discourse concerned with the ordinary and the extra-ordinary in architecture in the early 60s.

The second part of this chapter will return to the quest for a situated modernism, first introduced in the beginning of this dissertation. Typological design will now be joined with an appeal to use and expose materials bound to place. Modern, standard, “international” solutions will be inflected to meet the specificities of climate and use. Finally, a turn to the existing topography and the mutual inscription between landscape and architecture will reflect what Israeli society had long sought – a connection to the land, in which the latter was no longer perceived in the Diasporic, historical and abstract sense but in its concreteness and presence. This was another reflection of the effort to construct an old/new national and cultural identity in which the lack of an unmediated connection to the land would finally be overcome. In this sense, the ideological basis of the Canaanite movement and its conceptual conjunctions and disjunctions from 19th century romantic and national German ideologies was helpful in articulating the connections between a situated modernism and Israel’s socio-political context. Wary of this association, a
reservation reverberates throughout this text. It concerns the will to articulate a place-conscious architecture, and a national rather than nationalistic cultural identity.

**Methodology**

Architecture belongs to a specific place and time, but architectural ideas and people migrate. While focusing on Israeli case studies, I will frequently analyze them with references to analogous examples elsewhere. Cultural and disciplinary transference took place also because Israeli society was comprised of immigrants who came from many different countries. Several practicing architects in the period under study gained their formal architectural education in Europe. Exchange of knowledge was also facilitated through improved communication systems, attendance at international conferences, and subscription and contribution to publications with wide international readership. Although architecture is place-specific and can never be understood apart of its moment in time, common concerns have occupied architects in different locations as well as throughout different times. The culture of asceticism, as I have briefly mentioned, informed Labor Zionist ideology, but it was also present in ancient Hebraic sects, in factions of monastic life and in modern architecture’s narratives. Comparative readings helped me observe similarities and differences. They also sharpened my understanding of the specificities of the Israeli case studies.

The question of scale also has a methodological and thematic bearing on my work. The first national master plan, plans for new cities, new neighborhoods, building complexes, public spaces, singular buildings and the tectonics of building materials and details are examined throughout the six chapters. Although the structure of the dissertation tried to set out the chapters according to historical sequence, thematic considerations caused some temporal overlaps.
While the majority of this study concentrates on the period following the Declaration of Independence in May 1948, I could not confine myself to the post 1948 moment if I truly wanted to understand it. Delving into architectural debates in the 1920s and 30s in Mandate Palestine in the first part of chapter one was intended not only for the satisfaction of knowledge but also for the basis of understanding what was to come. Although this was conducive for establishing explanatory relationships, post-state architecture could not be solely understood on the basis of preceding decades.

Framing the study between the years 1923 and 1977 was predicated on two events. In September 1923 the British Mandate for Palestine was ratified. It lasted twenty-five years until the Israeli Declaration of Independence on May 1948. 1923 was also significant for the architectural avant-garde. Le Corbusier’s Vers une Architecture was published that year. 1977 is the year in which the hegemonic social labor party was defeated in the elections for parliament. The Likud with its liberal economics and middle to right-wing politics overcame the Alignment (Ma’arach), and Social Zionism, which I have frequently referenced as an influential ideology for earlier Israeli architecture lost its authority.

The manuscript is the product of different working methodologies. Some of the chapters concentrate on historical and cultural phenomena; others examine concrete architectural works. While architecture is its own discipline and has its own tradition and practices, it bears some degree of historical contingency. The inclusion of observations and analyses of concurrent social, economic, cultural and political phenomena was essential for establishing a better sense of the climate in which the architecture under study took shape. As Paul Ricœur has maintained, “there is no explanation without the constitution of several ‘series’ of phenomena: economic, political,

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3 In the Historian’s Craft Marc Bloch had maintained after Jules Michelet that, “he who would confine his thought to present time will not understand present reality.” Marc Bloch, The Historian’s Craft, p. 35.
cultural etc. In fact if one could not identify or recognize the same function in other events there would be nothing to understand; there is history only because certain 'phenomena' continue.\"4

My analyses are based on different case studies, which include textual sources as well as architectural drawings some of which represent work that never materialized. A number of case studies refer to actual buildings the majority of which are still in use. Some of the buildings have been irrevocably transformed. Others were demolished.

With respect to historiographies of modern architecture published during the period under study, it should be noted that they have largely overlooked Palestine and later, Israel. Alberto Sartoris’s historiography, for example, addressed modern architecture in Palestine through the work of a single architect, Joseph Neufeld (1899-1980) who had immigrated to Palestine in 1920 but later returned to Berlin to work for Erich Mendelsohn and later moved to Moscow to work for Bruno Taut. In the third edition of Elementi, Sartoris published fifteen images of six of Neufeld’s works built in the mid 30s. This was reduced to five images of four projects in the following two editions of the Mediterranean volume of the Encyclopédie (1948).5 Although Arnold Whittick’s monograph on Erich Mendelsohn (first published in 1940, second edition published in 1956) addressed Mendelsohn’s work in Palestine,6 Mendelsohn and Neufeld’s contemporaries, the architects working, teaching and publishing in the Yishuv who had a significant part in the realization of modern architecture in Palestine were not adequately addressed by their

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6 A number of more recent scholars have done the same. See for example the following texts: Alona Nitzan Shiftan, “Contested Zionism - Alternative Modernism: Erich Mendelsohn and the Tel Aviv Chug in Mandate Palestine,” Architectural History 39, (1996), 147-180.
contemporaneous historians. This was partially corrected in the mid 60s, in John Donat’s four volume publication *World Architecture* which included projects by Ram Karmi, and the partnership formed by Alfred Neumann, Zvi Hecker and Eldar Sharon in volume three (1966) as well as projects by Karmi and Ora and Yaacov Ya’ar in volume four (1967).

This study made use of both primary and secondary sources. The first included architectural projects, their related drawings (varying from schematic conceptual drawings to construction drawings), photographs, letters, documents and texts, which also included published symposiums or interviews. These sources were either published in professional architectural journals, literary and artistic periodicals, and local newspapers or obtained from different archives. This material falls under what Marc Bloch described as “the second category of evidence” which is “the evidence of witnesses in spite of themselves.” Secondary sources included scholarly books and articles from the discipline of architectural history and theory but also from the fields of art history, philosophy, sociology, political science and Jewish studies.

In some cases it was hard to distinguish between primary and secondary sources. Published material during the time under study, including editorial commentaries appended to projects or competition entries were, often, a conscious account intended to inform readers about that particular moment. Some published texts also offered historical analysis and interpretation. In these cases, I have often tried to obtain the indirect knowledge they proposed. If Aba Elhanani, to mention one example, referenced 19th century historicism in his text on banality, I was concerned with the reason it was significant for his argument on architecture in Israel in the early 1960s. This is to say that texts which may be considered secondary sources were often treated as primary

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sources because they alluded to the particular thought and concerns in which their authors were engaged at the time of writing which coincided with the time under study.

Both Bloch and Ricœur have emphasized that historians are never in the presence of their past object but only in its trace. Historians take hold of the past through observing and analyzing its documentary traces. This applies to buildings as well. Although they are tangible objects, some still existing and accommodating present needs, the task of knowing the conditions that precipitated their creation essentially involved an examination of their tracks. In this sense, since the buildings studied in this manuscript are products of the past, they do not differ from written documents. Still, a distinction has to be made. Unlike written documents, buildings change over time not in the sense that they can fall into disrepair (that can be the ill fate of a document too) but in the sense that their users appropriate them and add layers to them which may not have necessarily been anticipated in their inception. My choice of the term layers is intended in a literal sense and also as pointing to shifting meanings and significations. Buildings cannot escape their present presence.

I have added these caveats in order to emphasize that the case studies in my research were examined in their initial condition. The images I used to support my analyses and syntheses were almost entirely those taken at the time of construction or immediately thereafter. I have seldom deviated from this stipulation. When I did, it was largely due to the inadequacy of archival material, which was sometimes poorly preserved and, in several instances, nonexistent or entirely lost. That being said, photographs of buildings taken well after they had been built often disclose valuable latent information. User appropriation, material weathering, the adaptation of

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8 This is intended not as a “fetishism of facts” in the sense of their mere recording. In the very act of reconstructing the past both abstraction and synthesis are required and while both are predicated on methodical analysis their main objective is to divulge relations between phenomena. In this sense they go beyond facts.
Marc Bloch, *The Historian’s Craft.*
Paul Ricœur, *History and Truth.*
the building to its site or the latter’s adjustment to the former – all phenomena related to the prolongation inherent to many objects of architecture – can sometimes serve as retrospective clues. They may convey some sense of the opportunity invested in the early stages of the work. Evidently, not all such material is conducive to a better understanding of the work or its historical moment. Some cases confirm the opposite and need to be parenthesized in order not to obscure understanding. Other instances may prove to be entirely adventitious and, while they may be significant for historical studies of other sorts, they may have no bearing on a research focused on the history and theory of an architecture created at a particular period.

In respect to sources, it is important to emphasize that the working methodology makes no attempt at a philosophy of evidence. There is rather a pragmatic acceptance of documents, and no argument is attempted regarding the suitability of the sources. As mentioned, many of the original drawings and photographs are in poor condition a matter which will no doubt need to be further addressed in future research.

A further qualification needs to be maintained: my analyses of architecture in Israel in the first decades of statehood represent a selective intellectual history. The topics under study generated the inclusion of specific works and specific authors. Several contemporaneous themes, schools of thought and projects were not included.

My initial interest towards the subjects of this research was instigated by preliminary encounters with a number of the buildings under study. Some of these encounters occurred well before the initiation of a formal and methodical study. The kind of knowledge acquired in this way was largely informal and tacit. It had more to do with a general non-thematic awareness rather than a rational or systematic analysis. Multiple recurring visits and the articulation of some
form of hypothesis were intended to methodically organize these first, and at times, intuitive impressions.

A complete picture of the time under study is a regulative idea, a “never attained limit” to quote Ricœur. It can never be fully accomplished. Although a consciousness of this era was something I attempted to reconstruct, this picture remains in principal incomplete since it is always something progressive and transforming, as the materials of the past constantly lend themselves to continuous further study. The repetitive reading, visits and conversations I had with teachers, colleagues and friends have helped me gain several perspectives, enriching the continuously unfolding tapestry that constitutes my unfinished but growing understanding of Israeli modern architecture.
1. Emerging Modernisms

1.1 Concrete Foundations and Representational Objectives. 1920s, 1930s.

As the Jewish population in Palestine grew during the first decades of the 20th century, and as the projection of building a new nation hovered over its collective imagination, architects sought the appropriate “style” in which this collective ethos would be revealed. This objective was predicated on (1) a representational argument: through visual demonstration, architectural forms and their compiled configurations were understood as vessels of associations, that is to say, they evoked memories, ideas and ideals. In external forms, wrote Eugene (Yohanan) Ratner, a practicing architect, professor of architecture and, later, dean of the Technion School of Architecture, “the ideals and character of their people have been manifested.”9 Acknowledging this symbolic dimension established the field of architecture within a wider temporal and spatial context. If forms stimulated memories then the conditions of their encounter necessarily extended beyond the immediate place and occasion in which they were experienced. This would suggest that the conception and reception of forms would never subsist in a cultural or historical vacuum. Consequently, any proposition for a tabula rasa methodology – not unfamiliar to early modern architectural historiography and to modern thought at large – would be ontologically and epistemologically impossible. Recognizing architecture’s symbolic role instigated a declarative strategy where the manipulation of memories and maneuvering of other mental connections was employed by architects, whether consciously or unconsciously, for the purpose of eschewing images discordant with and constructing images corresponding to a symbolic repertoire consonant with a new national self-definition.

This essentially symbolic objective – understanding architectural forms as mediators through which ideas are transmitted and linkages offered – constituted, however, a partial account as to the development of architecture in Palestine in the years of the British Mandate. Representational reasoning underlying the search for an appropriate architectural idiom coincided with and was influenced by concrete and practical phenomena, thus suggesting (2) a *material argument* for the transformation and transfiguration of architecture at this moment. Grounded in and responsive to changing material conditions was framed by the different inflections implicit in the term materiality. The first (2a) pertained literally to developments in construction materials: concrete, iron and glass. Although not new in themselves, these materials had undergone extensive development in the 19th and early 20th centuries affecting their structural and performance properties, thereby also influencing the practices of construction engineering. These developments were inextricably linked to and contemporaneous with other aspects of materiality the second of which was (2b) Palestine’s expedited industrialization, and the rationalization and mechanization of production and construction.

Industrialization in Palestine was compressed into a shorter time span compared with its European counterpart, the latter predicated on centuries of industrial evolution. Its rapid realization was somewhat unstructured and curtailed by British Mandate authorities, suspended between the declared mission of modernizing and “civilizing” their ward-nations and preserving a Western-constructed image of the Middle East as object for romantic longing. This last objective was augmented by Palestine’s sacred significance to Christianity, Judaism and Islam and its universal portrayal as the Holy Land. Although the British government was entrusted by the League of Nations to oversee life in Palestine, its responsibilities extended beyond the provision of and supervision over a range of civic services and included the preservation of historic places and the landscape representing this world-encompassing religious sentiment. A range of
dichotomies framed the question of preservation and intervention: local-universal, old-new, traditional-modern, pre-industrial-industrial, handcrafted or machine made.

Early 20th century Western debates over the division of machine and handcraft informing the Arts and Crafts movement and its extended Wiener Secession and Deutch Werkbund associations, was paralleled by a related phenomenon in colonial regimes in which industrialization and deindustrialization were strategic tools for insuring existing power relations and the reinforcement of the colonized as object of desire and control. In Palestine too, the manifestations of Edward Said’s Orientalism were evident through the British Mandate administration’s concessions, public works and historic preservation policies specifically employed in Jerusalem, but affecting modernization endeavors throughout Palestine. The 1918 appointment of Charles Ashbee of the Arts and Crafts movement as civic advisor to the British Military Governor in Jerusalem, Ronald Storrs, further confirmed the essentializing Orientalist view of the Middle East. Ashbee’s preparation of extensive plans for the reconstruction of the city was framed by his involvement in the Pro-Jerusalem Society, supervising new construction, the preservation of historic monuments, and the institution of handicraft guilds in which weavers, glass blowers and potters “could practice the crafts they love and study their much needed service to Western Industrialism”10. Traditional expertise and work structures and their public display at the reconstructed Arab market place were an encapsulation of a colonial oneiric view of a world different from “Western Civilization”. This safeguarding of a phantasmagoric scene enthralling Western consciousness as object of mystery and longing was, however, well contained within the boundaries set by a rationalized West and a means by which the West could define itself by opposition.

A similar stance materialized in the craft-based orientation of Bezalel Academy in Jerusalem, established for the sake of creating an “authentic” national art in the Land of Israel, and sponsored by Zionist organizations for the pursuit of that purpose. Handcraft techniques, biblical thematic sources and the depiction and representation of cultural “types” underwrote a romanticizing nostalgic promotion of Palestine as the Holy Land, resonating with its idealization in the West throughout the 19th century. The academy’s professed contribution to the local economy by instructing workmen for various trades who could apply their skills to small industries was affirmed by its founder, Boris Schatz, as one of the school’s founding motivations. In reality, Bezalel’s economic input was predicated on the production of ornamented paraphernalia and Orientalized souvenirs coveted by tourists and secured through a growing market for export. The Western construct of an “authentic” and “primordial” world untarnished by Western industrialization, was effectively reenacted within this local artistic milieu, prioritizing the idealization of an image of the past over the representation and incorporation of current unfolding events in the Jewish Yishuv (old Jewish settlement in Palestine). The Jewish settlement’s investment in industrial enterprises, its urban growth and agricultural settlements had no representation within Bezalel’s artistic corpus.

Industrialization, however contested by figures of colonial romanticizing practices, was inevitable. Zionist industrial enterprises in the 1920s began to reshape traditional work practices, and the circumstances previously conditioning them. In the building industry, the establishment of the first Portland cement plant in Haifa in 1922, the opening of the Silicate factory for building blocks in Tel Aviv in the same year, and the expansion of the Chelouche factory for pre-fabricated concrete building components in the outskirts of Jaffa were a case in point. These developments followed incipient steps toward rationalization and mechanization in the field of

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prefabricated construction materials emerging in Palestine in the 1890s. Two manufacturers of concrete building components were operating at the turn of the century on the border of Jaffa: the Chelouche factory belonging to the Sephardic Jewish Chelouche family, and the factory belonging to the German Templer, Hugo Willand, adjacent to the Templer village Valhalla. A third manufacturer of prefabricated blocks comprised of cement and coarse sand began operating soon after, and has been tied to local Jewish separatist efforts to avoid using calcareous sandstone and the employment of Arab labor which was most experienced in working with this local material. The machines involved in these initial industrial processes were most likely imported from Germany the cement from European and North American sources.\textsuperscript{12}

The prefabricated concrete block introduced to the local market through the Chelouche and Willand factories replaced load-bearing stones in walls, but in the early stages of its employment was rarely the sole ingredient in wall construction. Walls were typically comprised of a hybrid of stone and concrete block. The novelty of the concrete block was apparent in its structural advantages: it was hollow and therefore both lighter than stone and a better insulator. Relative to Eolianite or calcareous sandstone entailing handcraft expertise involved in chisel work, the concrete block was faster and cheaper to produce.\textsuperscript{13} Although clearly bearing structural properties that differed from stone, in the first two decades of the 20\textsuperscript{th} century prefabricated concrete components, blocks but also prefabricated stairs, lintels and windowsills were typically used in their capacity to emulate stone, which, as historiographic writing on concrete reveals, was the case with early applications of the material throughout Europe and the United States as well.\textsuperscript{14}

\textsuperscript{12} Or Aleksandrowicz, “Kurkar, Cement, Arabs, Jews: How to construct a Hebrew city,” \textit{Teorya ve-Bikoret} 36, 61-87. [Hebrew].

\textsuperscript{13} Or Aleksandrowicz, “Kurkar, Cement, Arabs, Jews: How to construct a Hebrew city,” \textit{Teorya ve-Bikoret} 36, 61-87. [Hebrew].

Explorations of concrete’s extended structural possibilities started to affect construction methods after the First World War. In the 1920s, concrete was being produced locally and reinforced concrete poured in situ began penetrating the building industry. Among Zionists immigrating to Palestine during the third immigration wave, circa 1919-1924, were engineers schooled and trained in Europe. Their professional experience in modern industrial factories and manufacturing facilities was incorporated into the building industry in Palestine. The Hungarian born civic engineer, Arpad Gut, who immigrated to Palestine in 1921 and supervised the construction of the Cement Portland Nesher factory in Haifa specialized in reinforced concrete and has been acknowledged as introducing the first cement mixer to the expanding field of construction in Palestine at that moment.15

Paralleling these material developments and effectively institutionalizing them was the founding of the laborers construction and public works cooperative in 1921. Originally founded as part of the para-state organization of the Histadrut – the General Federation of Laborers in Israel – it constituted the Yishuv’s largest contracting body working also as a cooperative manufacturer of materials. Refusing the dependency on import and the reliance on local Arab production, Solel Boneh (lit. paving and building) was intended to become a multi functioning collaborative, managing different ranges of construction, producing its own materials and operating fabrication workshops. Subscribing to this enterprise was the establishment of a stone industry, and the founding of timber mills, Carmel in Haifa and Dror in Tel Aviv. At the same time the Nemelit was founded in Haifa for the production of cement. In an effort to expedite the rationalization of production and construction, and challenged by foreign contractors winning bids in the local market, Solel Boneh established the “equipment fund” with which its members collectively acquired machines and construction equipment necessary for public works. The

fund’s purchasing of modern tools – pumps, gravel machines and cement mixers – aided by fund raising in the United States and collaborations with U.S. workers’ associations, transitioned the initial cooperative’s labor intensive practices to a specialized, mechanized structure with increased productivity.\footnote{16}

An active agent in the route toward industrialization and modernization and contributor to the accumulated technical knowledge of Solel Boneh, was Pinchas Rutenberg, industrial and engineering magnate who founded the Palestine Electric Cooperation. Rutenberg was born in Russia and graduated as a mechanical engineer from St. Petersburg Technological Institute. He gained professional experience through working at the Putilov Complex, one of Russia’s largest factories for industrial machinery production, of which he became director of workshops. The factory’s organized labor forces drew him closer to the proletariat. He consequently extended his involvement with socialist revolutionary movements, and after fleeing on political grounds and with growing awareness of the Jewish predicaments in Russia, joined Zionist circles and ultimately relocated to Palestine.\footnote{17} His volume of entrepreneurial efforts included the utilization of hydraulic resources for Palestine’s irrigation and electrification. In 1921, after a long negotiation process, the British Government granted Rutenberg a 70-year concession for developing and implementing electrification in Mandatory Palestine, excluding the area of Jerusalem, which, according to historians, had been the result of both British and Arab conservatism – The one, as stated, opposed to the industrialization and modernization of a

\footnote{16}{For more information on the history of Solel Boneh see the memoir by Hillel Dan, one of the cooperative’s founding members. Hillel Dan, Bederch Lo Stula, (Tel Aviv: Schoken Publishing House, 1963). [Hebrew].}
romanticized Middle East, the other, suspicious of Zionist construction attempts as infiltrations into domestic soil.\textsuperscript{18}

Rutenberg’s entrepreneurial impulse had immediate material ramifications in the field of construction. His execution of the first power stations and massive deployment of infrastructure involved the purchasing and operation of sophisticated machinery. Solel Boneh’s involvement in the construction of the power station in Naharaim in the 1920s proved decisive in advancing the cooperative’s technical expertise. The cooperative workers’ professional training by German engineers whom Rutenberg hired to plan and carry out the project, afforded its members concrete experience with modern equipment: bulldozers, tractors and pneumatic drills, tools previously unencountered by them.\textsuperscript{19} The inclusion of the power station in the construction cooperative’s repertoire yielded hands-on experience as well as accumulated knowledge of rationalized, modern work practices and managerial skills. Practical knowledge transmitted to local contractors by Rutenberg’s electrification enterprise would, by extension, trickle into other projects and invigorate the field of construction. Technical know-how, availability of construction equipment, new applications for existing materials, and, consequently, new structural possibilities were another source generating the pursuit of an appropriate architecture for Palestine no longer predicated solely on vernacular construction methods. The products of architecture were stirred and inspired by a wide material base, filtering into the profession’s discourse through entrepreneurs, engineers, contractors and fabricators – partners in the conceptualization and realization of any architectural venture.

Although building was embedded in these concrete practices, practicalities alone were not the sole constituent in the search for an appropriate style. Formal considerations were not

\textsuperscript{18} Gilbert Herbert and Liliane Richter, \textit{Through a Clouded Glass: Mendelsohn, Wijdeveld, and the Jewish Connection}, (Berlin: Ernst Wasmuth Verlag Tübingen, 2008).

grounded in exclusively technological circumstances – technological in its original sense as techné – the practical know-how and application of tools involved in making. Technological advancements in the fields of production and construction, however influential, were not the sole generators of the search for an appropriate architecture for Palestine.

In the 1910s and 1920s, Zionist architects, immigrating mainly from East and Western Europe sought the formation of a new national identity through an appeal to the vernacular buildings of Palestine. The immigrants’ acknowledgement of their ancient sources in the East, and their disenchantment with discrimination policies towards Jews in the West were framed and strengthened by corresponding general sentiments: the prevailing Orientalist depiction of the East in Europe since the end of the 19th century, and the disillusionment with “Western civilization” rising among European intellectuals after the First World War. At this moment, references to the East were intended to anchor and root the immigrants of the Yishuv in their new territorial base and overcome what Zionist ideology decreed as the essential feelings of uprootedness and dislocation accompanying Jewish collective consciousness in the Diaspora.

The appeal to vernacular forms was paralleled by several modernist negotiations with the vernacular in Europe. An interest in indigenous building informed the architectural discourse at the onset of the 20th century expressed in works and writings by architects as Joseph Hoffmann, Adolf Loos and Hermann Muthesius. The concept of abstraction appropriated by avant-garde modernists as an offset to the excessive historicism of the revivalist styles was already present, as some of them had acknowledged. This led to an interest in the surface planarity, formal simplicity

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20 See, for example, Oswald Spengler’s *Decline of the West*. Originally published as *Der Untergang des Abendlandes* in 1918. The English version of which was published in 1926.
21 See more in Eugene (Yohanan), Ratner, “Architecture in Palestine,” *Palestine and Middle East Economic Magazine*, 7-8, (1933), 293-296. Specifically under the sub-title: “Early Attempts at a Palestine Architecture.”
and structural aptness of vernacular buildings. Similarly, standardization, typically tied by modern patronage to the process of industrialization and mass production, and entailing the relinquishment of superfluity for the purpose of optimization and increased functional and economic efficiency, had a corresponding expression in vernacular building practices. In the non-academic, pre-industrial conventions of these practices, the typical – standard – was an inherent outcome of the local craftsmen’s practical problem solving. Solutions perfected over time through trial and error, bearing no reference to historically constituted principles or to modern modes of production became viable building norms.

This inflection of the modern, and its reading as dialectically entwined with vernacular traditions rather than diametrically opposed to them, informed the work of several modern architects in Palestine in the 1920s. The German Jewish architect, essayist and educator Alexander Baerwald, studied indigenous Palestinian buildings consequently adopting their use of local materials, as well as elements of their formal vocabulary. In 1908, while still living in Germany, Baerwald received a commission from Hilfsverein der Deutschen Juden, the Aid

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Association of German Jews, to build a technical institution in Palestine. The project was completed in 1912 and was accompanied by publications in which Baerwald praised the work of local masons while still expressing the need to rationalize construction. He acknowledged the structural efficiency of the prefabricated concrete block in Palestine, but rejected imported modern techniques where reinforced concrete supplanted local rubble vault construction. A comparable non-dogmatic stance toward construction methodology, specifically related to reinforced concrete, was apparent in projects by British architect Austin St. Barbe Harrison who worked for the Mandatory Public Works Department (PWD). Similarly suspended between two existential realities: modernism and regionalism or Western rationalism and Eastern traditional handcraft techniques, Harrison commended local traditional vaulting methods and incorporated them in his projects. He did not, however, avoid employing reinforced concrete as well. As current studies have shown, several vaults in the High Commissioner’s Residence in Jerusalem, the large dome and cassette ceilings of two galleries in the Rockefeller Archeological Museum were built with reinforced concrete. Both examples were cases of structural and material hybridity in which the structural properties of concrete facilitated construction but did not yet instigate a reflective modernist process in which the employment of new materials generated a reevaluation of formal and spatial considerations.

Reinforced concrete was underplayed, its tectonic presence masked so as not to override the representational purposes in most cases intended to convey an Oriental semblance to the buildings. Although clearly working in a moment of changing material conditions, representational objectives extended the determinant authority of production conditions: the forms of architecture were not only the outcome of the means of their making, but also the

25 Ibid. 281-333.
reflection and, therefore, the embodiment of symbolic intentions. While reinforced concrete was accessible and used at this moment, its inclusion in construction revealed a conceptual separation between structure and appearance or, more precisely, did not question a prevailing formal vocabulary achieved under different tectonic circumstances, i.e., under the conditions imposed by the following three parameters: (1) the use of other materials (2) the employment of labor practices that exploited materials in typical ways and (3) the corresponding structural rationale. The question of material and structural determinism arguing for a direct correlation between material, structure and form was, on the basis of the former example, underplayed in Palestine at this moment. Material did not generate or affect form it was subordinated to it.

The hierarchical structure in which representation typically overpowered a material base waned in the 1930s. In practical terms, Palestine’s process of modernization was well underway at this moment, and new applications of materials and the acquired skill involved in their handling was no longer a rarity. Architectural production during this decade made extensive use of reinforced concrete not only as a structural constituent but also as a generating principle motivating new formal investigations. The massive stonewall was replaced with a concrete columnar system and, in several instances, the building’s envelope relinquished its load bearing purpose and assumed a variety of alternate functions. Horizontal apertures, wide spans, and cantilevered roofs all of which were, structurally speaking, outcomes of concrete’s capacity to withstand compressive and tensile stress revealed new formal expressions. The advancement of these forms and elements by local architects was anchored, as elsewhere, in what was strictly understood as modern – a self-referential pursuit of the medium’s syntax. The structural foundation afforded by reinforced concrete revealed a new vocabulary believed to have emanated from an unmediated analysis performed by architecture on its internal constituents and autonomous sensibilities. Concrete no longer needed to emulate stone, its structural potentialities
no longer required to be concealed behind the constraints of stone construction. Modern architects in the Yishuv working in the 1930s extricated concrete from this earlier conceptual limitation and proclaimed its expressive faculty as a generator of form.

The fluctuations and continuous tensions between the material and the representational pertaining to the question of form were evident in Ratner’s texts. Ratner subscribed to the differentiation between “two schools of thought” in preceding architecture of the 1920s: that of “central and Northern Europe”, versus that of “Anglo Saxon countries and Southern Europe”. The former, he contended, advocated new means for architectural expression. The latter, while “adopting new building methods still clung to traditional external forms.” Rather than defend or deny the historical accuracy of this differentiation, it is evident that it was intended to preserve a certain modernist credo in which material means – “building methods” – were to be reflected in and inducing of “external forms”.

According to Ratner, “the modern tendency”, which he understood to be the concept of form as an outgrowth of material and method, became a widespread phenomenon in Palestine in the 1930s. Notably, however, his advocacy for this particular interpretation of modernism was well rooted in symbolic concerns:

_Had we still been wavering between the divergent architectural conceptions of ten years ago, the result would have been (as in large cities elsewhere constructed during the transition period of architecture and now being remedied at the cost of much energy and money) not only the waste of large capital, but also the creation of an incoherent conglomeration of buildings. The danger of chaos in our case is greater than in other countries, as our architects, builders and property-owners hail from the four corners of the globe. We should indeed pay due tribute to a movement which could discipline such an intense activity and give a common cultural medium of expression to what was at one time little more than a Levantine mixture of European and American architectural influences._

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Conferring the means to achieve a common expression, indicative of shared values and a collective ethos, widened the meaning of modernism for Palestine from its reductive mirroring of techniques or functional requirements. Put differently, the insistence on such material grounds revealed distinctly representational intents. Implicit in “the modern tendency”, according to Ratner, was its capacity to resist and reject the “incoherent conglomeration of buildings”, and offer a society comprised of new immigrants from across the globe, the possibility to establish a resolutely consistent style, reflective of an equally coherent new national identity. The copious trails of other national identities would be replaced by a unified modern architecture whose foundations, it was argued, lay in function and method. Somewhat ironically, the modern creed of rejecting the question of style by focusing on the objectives of procedure became itself, a style.

The practical and, literally, “concrete” substrate driving formal analyses was, therefore, stimulated and framed by mechanisms outside the realm of “objectivity” and strict material reasoning. The espousal of forms and spaces afforded by using reinforced concrete, for example, were not solely predicated on technical abilities. The advocacy of modern, abstract forms was inextricably tied, once again, to a representational argument. Aside from their actual, tangible and objective characteristics concrete and the unfolding of a new formal imagery assumed additional ancillary meanings expressive of rapidly changing social, cultural and political circumstances.

If architects in the 1920s were predisposed toward autochthonous forms and, in some instances, integrated them into a syncretic architecture, the political climate in the following decade complicated the legitimacy of this cultural enterprise. The main Zionist objective for national revival in the land of Israel through immigration, land acquisition and settlement increasingly threatened an equivalent Palestinian national sentiment.²⁷ Throughout the 1920s

tensions and occasional violent incidents thrust the population of Palestine into a turmoil of national and existential ambiguities. In 1929 a dispute over Jews’ right to pray at the Western Wall ignited Arab attacks that spread throughout Palestine. Known as the 1929 Massacres or the Western Wall Uprising, these violent rampages resulted in unprecedented bloodshed in the history of the Arab-Jewish conflict and marked 1929 as a turning point in Arab-Jewish relations.

In the following decade the rift would only deepen culminating in the 1936-1939 Arab Revolt.

In addition to modernization affecting a changed material culture at this moment, a break with previous ideologies and a retargeting of political goals distinguished the 1930s from foregoing decades. Architecture’s adaptation to the decade’s strenuous political climate was apparent, therefore, in both material and representational terms through continuing reassessments of three main constituents: construction techniques, construction materials and visibly apparent architectural forms. While traditional construction methods may not have been pertinent to an aspiring industrialized rationalized and mechanized society, behind their rejection lurked a further intention. Supported by Zionist separatist strategies, the general effort in the Yishuv was to avoid dependency on Arab labor, however admired it may have been particularly in masonry construction. Zionist para-state institutions endorsing construction projects stipulated employment of Jewish labor well before the 1930s, and the concept of “Avoda Ivrit” (literally: Hebrew labor) informed work practices throughout the Yishuv. The promotion of locally manufactured, industrialized building materials supplanting the reliance on local stone and the acquired labor involved in its handling reflected another facet of the same attitude. Negation of traditional construction techniques was, therefore, accompanied by a promotion of materials not affiliated with the land’s indigenous (non-Jewish) buildings. The Silicate block infiltrated the

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28 See Hillel Dan’s descriptions of Solel Boneh’s efforts to infiltrate work places and seek employment opportunities typically assigned to Arabs. Hillel Dan, Bederch Lo Slula. (Tel Aviv: Schoken Publishing House, 1963). [Hebrew].
building market and became a popular construction material for both load bearing and wall-infill purposes. This industrialized, locally manufactured block was promoted as a “Hebrew material” counteracting the connotation of stone with Arab labor. Exclusion of traditional construction techniques and materials was intensified by omission of indigenous formal features – apparent Oriental elements. In the midst of growing collisions with the Arab population, architects in the Yishuv could no longer resort to the literal images of the East and the search for architecture reflective of a national identity turned to embrace alternate inspirational sources far removed from identities it considered infringing upon its own.

Contemplating this conceptual turn architect, architectural historian and educator, Julius Posener, explained: “A discernible change has occurred in our thinking… we no longer seek an Oriental appearance. We have abandoned the prospect of assuming an Oriental image by constructing domes and arcades. This reaction was necessary and befitted the real requirements of the Jewish people.”

A turn to a modernized canon, devoid of Oriental elements was analogously linked to a process in the Diaspora where, according to Posener, “the Jews took part in the development of a new style in Europe. They distanced themselves from traditional forms, learned to appreciate simplicity and freed their homes from past memories.” The abstracted “modern simplicity”, in Posener’s words, intended a break with both traditional European and Oriental building practices and stood for the prospect of disciplinary cleansing affording new beginnings all the more pertinent, as Ratner had demonstrated, in the case of the emerging Yishuv in Palestine.

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31 According to Alona Nitzan Shifman this separatist stance was in fact part of a triple negation informing Yishuv architects at this moment. The negation of Orientalism, the negation of the Diaspora and the negation of the bourgeoisie. See Alona Nitzan Shifman, “Contested Zionism - Alternative Modernism: Erich Mendelsohn and the Tel Aviv Chug in Mandate Palestine,” Architectural History, 39, (1996), 147-180.
33 Ibid.
Material and representational motivations were intertwined; in Europe, the modernists’
negation of the excessive reviveralist styles was predicated on a practical rejection of procedures no
longer relevant to an industrialized society employing new materials, new work procedures and
new modes of construction. It was also part of a pan-cultural effort to reestablish disciplinary
boundaries and reconstitute the essential in every field. Interpretations of historically constituted
forms were understood as inconsistent with contemporary techniques and the persistence of their
representation resulted in unethical pastiches. Pertinent to the Palestinian context was also a
rejection of the symbolic repertoire tied to the Diaspora, which many Zionist ideologies sought to
suppress, specifically when advancing the formation of a new national Jewish identity in the Land
of Israel.34 Opposing Orientalism was, likewise, an appeal to incorporate contemporary methods
and materials but, at the same time, was framed by a reshuffling of representational intentions, the
latter, as mentioned, corresponding to the moment’s changed political climate and revised
national constitution.

Critically engaged with the corpus of preceding decades, Posener reflected on the brisk
architectural climate of the 1930s which marked production in the 1920s as bearing “Oriental
characteristics”, a classification predicated on building elements and ornamentation – the readily
apparent components of architecture’s visual inventory. These elements, he argued, were no
longer congenial to modern modes of production or structural rationale but remnants of
autochthonous construction opportunities. Their inclusion in an architecture predicated on
modern construction techniques or spatial concepts was a structural incongruity; “To place a plan
from 1925 into a building resembling an Arab house was a difficult task the result of which was
the incorporation of Oriental motifs.”35 Since the modern construction method was the concrete

34 Alona Nitzan Shiftan, “Contested Zionism - Alternative Modernism: Erich Mendelsohn and the Tel Aviv Chug in
35 Julius Posener, “One Family Houses in Palestine,” Habinyan – A Magazine of Architecture and Town-Planning,
(1937). [Hebrew].
skeleton – trabeated rather than arcuated – the prevalence of Oriental motifs, inconsistent with this structural premise, was perceived as a professional mishap. This was similarly expressed in Ratner’s text published a number of years earlier:

... There has been an endeavor to achieve a national architecture by emulating the oriental styles, particularly those of the best Arab period. These buildings, pleasing in appearance and singularly adapted to the climate and the landscape, stimulated a desire to recreate a similar style today. It was hoped that from these foundations in the course of time a peculiarly national style would evolve. The work was pursued in two directions. Some architects again thought it sufficient to confine themselves to the imitation of certain elements of Arabic style for the ornamentation of modern building, constructed according to vastly different aesthetic principles. A similar tendency has been noticeable a short time previously in Europe and America when factories were built in the Italian Renaissance style and skyscrapers like Gothic cathedrals... As far as Palestine is concerned it is noteworthy that after several experiments of this nature in Jerusalem and Tel Aviv, Palestine architects soon forsook the sterile field of imitation... in the majority of cases architecture of this type is singularly devoid of character and these buildings approach as near to an Eastern style as does Hollywood.36

For the modern architects in the Yishuv in the 1930s – many of who were educated in architectural and engineering schools in Germany, France, Belgium and Italy in the 1920s and early 1930s after which they gained professional experience in prolific practices including those of Le Corbusier, Erich Mendelsohn, Hannes Meyer and Bruno Taut – there was to be no divorce between representation and method. But method was insufficient in itself. Although modern architecture’s propounded freedom from the tradition’s stylistic and associative impediments was a leitmotif in inter-war architectural historiography and filtered into both Ratner and Posener’s arguments, Posener was well aware of the dubious implications of this declared self-referentiality and its purported disassociation with tradition. Pointing to the etymological similarity between habit and habitation, he reflected on the lack of such practice for Jews immigrating to Palestine sharing no part of the local building lineage. However, he stipulated:

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The Land of Israel is not a foreign land for the Jew. When he builds, he does not import his ancestral home from the Diaspora, on the contrary, the Jew intends to construct, for the first time in his life, his own home, a home which will also be the home of the country in which he settles.\textsuperscript{37}

Laden with internal complexities, Posener’s text revealed the fundamentally convoluted structure of Zionist identity suspended between its actual and tangible two thousand year old Diasporic past and the historic, often mythologized past in the Land of Israel before exile. While the “Promised Land” was of course not foreign as an idea it was unquestionably foreign as a reality. Aside from it being unfamiliar to the immigrants first encountering its prosaic rather than idealized and rhapsodized image, Palestine’s recorded history was not their own. Building traditions were a privilege of the indigenous Arab population thereby sharpening the Yishuv’s inherent sense of alienation from and foreignness in their old/new territorial home. The challenge was put forth: How could a modern architecture, based on modern means of production and construction\textsuperscript{38} and relieved of building traditions and images it no longer aspired to recollect, impart a sense of belonging if the latter was inextricably tied to a notion of local building and dwelling habits? Was a reflection of contemporary material conditions necessarily a rejection of regional past building practices? Or perhaps, in more general terms, was the architectural discipline comprised of a-temporal, trans-historic (and trans-ethnic) constituents along with those reshaped through and anchored in the present?

In the post 1929 climate in Palestine, references to autochthonous buildings were decreasing and a connotative appeal to the formal powers of the “machine aesthetics” was instated through an unmediated importation of modern architecture from central Europe. The


\textsuperscript{38}The emphasis on technical progress was, of course, one aspect of the modern movement but certainly not the sole purpose of its endeavors. For the moderns trying to alleviate social injustice it played a more marginal role, or at least provided the means not the end of their objectives.
international Levant Fair, which took place in Tel Aviv was an emblematic example in which the pavilions bore a modern syntax including the one designed by Richard Kaufman for the display of the Yishuv’s local production (Binyan Totzeret Haaretz) (Pl. 1.1 01,02) Evocative images of buildings bearing a modern industrialized image prevailing over autochthonous oriental forms appeared in the posters promoting the fair (Pl. 1.1 03,04). Notably, this was contrary to a reverse process in Europe, in which many contemporary moderns had begun to modulate their earlier machinistic tone. This would also include a reconsideration of an internationally viable architecture, in which standard solutions were considered ubiquitously applicable. Le Corbusier’s work at this moment is a case in point and, as architectural historians have shown, this shift resulted in increased responsiveness to regional concerns instigated by his travels to “pre-industrial or less developed regions” beginning in 1930. At this moment, vernacular, pre-industrial architecture had a second resurgence, affecting architectural configurations, building materials, skins and details and bringing modern architects in the 1930s in Europe to, once again, broaden their concept of the modern.

In Palestine, the critical engagement with the “International Style” appeared soon after. The German emigree Erich Mendelsohn who established a practice in Palestine in the mid-30s focused on adapting modern European architecture to the specific conditions of the Orient. Mendelsohn’s first projects in Palestine built in 1936 were the private houses for professor Chaim Weizmann (president of the Zionist Organization and soon-to-be first President of Israel) and

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publisher Salman Schocken in Rehovot and Jerusalem respectively. Some of his most prominent projects in Palestine included drawing the master plan for the Hebrew University on Mount Scopus where he also planned the Haddasah Hospital as part of the university’s medical center (1936-38). In Haifa, he planned the English Government Hospital (1937), and in Jerusalem, the Anglo-Palestine Bank (1938-39). He was critical of architecture in the Yishuv for its inability to adjust European models to local climatic conditions. As he has written:

> Their architects built with cement and glass because they had neither the time nor the understanding to study the conditions of the oriental climate. They were excited, as imitators invariably are, at the new signs visible on the architectural horizon, they were anxious to join forces with the leaders of the new movement. There was the inevitable need to have roofs over the heads of the immigrants, hence quick and cheap building; but there was also the ambition to show something of their own, hence Western architectural methods; the longing to typify the new world and to be modern, hence glass. As a result there arose the Jewish city of Tel Aviv and the bourgeois suburbs of Haifa and Jerusalem, which have grown like wild colonial vegetation with properly organized planning.\(^{41}\)

Mendesohn admired the Mediterranean as “the eternal creative force” acknowledging its presence “Everywhere in the Orient.”\(^{42}\) His appeal to vernacular sources was stated in a letter he wrote to Posener when visiting Capri in 1937, the same year Posener published his text in Habinyan. After lauding the “grand, Greek spaciousness without pettiness” he maintained:

> I conclude that no one ought to build in Palestine who has not first studied the rural buildings of the Mediterranean. They are the origin even of palaces and of the dramatic freedom of all architecture...\(^{43}\)


In a publication accompanying the exhibition *Twenty Years of Building* organized by the General Federation of Jewish Laborers in Palestine in 1940, Arieh Sharon explained: “Our planning has remained European oriented; Most of our buildings can be placed in central Europe without evoking the impression of foreign objects.” This observation followed Posener’s earlier text in which he rejected the naive quotation of architectural details and elements from Germany. Such unqualified transference, Posener thought, neglected local requirements and, consequently, failed to offer a distinctly “Israeli style”. Neither Orientalism nor an uncritical Europeanism would suffice and an effort to produce a local variant was proposed by both Posener and Sharon as bearing definitively objective criteria. Their suggested methodology followed the lines of normative criticism in which a localized modernism would be possible if it were to respond to such natural conditions as climate and soil – conditions unrestricted by cultural norms. In Sharon’s words: “I am certain that with deepening (our) roots in the land, the climate will have a determinate influence on the planning of the home and will establish its unique Israeli character.” Similarly, Posener maintained that although *Yishuv* architects acknowledged the inadequacy of an imported, unmediated modernism, they did not abandon the quest for an Israeli style but simply adjusted the architecture to local climatic conditions generating a variety of solutions, typically, modulation and reorientation of apertures and thickening of the building’s skin. According to Posener, climatic solutions found in autochthonous Arab buildings were

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44 Arieh, Sharon, “Public Building in Palestine,” *Twenty Years of Building, Workers’ Retirements, Housing and Public Institutions, General Federation of Jewish Labour in Palestine, Engineers’, Architects’ and Surveyors’ Union*, (1940), 115-116. [Hebrew]

45 The reference to Germany is pertinent because of the *Yishuv’s* demographic changes during this decade. In the fifth immigration wave, circa 1929-1939, over 250,000 new immigrants more than doubled the existing Jewish population in Palestine. The majority of immigrants came from Poland, followed by Germany, Austria and Czechoslovakia. Fewer came from Rumania, Lithuania, Greece, Yemen and the United States. Similar to the fourth wave, the Zionist pioneering zest did not characterize the majority of immigrants, who were largely professionals, industrialists and academicians. Consequently, the majority of them chose to settle in large cities contributing to urban cultural and economic growth.

46 Arieh, Sharon, “Public Building in Palestine,” *Twenty Years of Building, Workers’ Retirements, Housing and Public Institutions, General Federation of Jewish Labour in Palestine, Engineers’, Architects’ and Surveyors’ Union*, (1940), 116. [Hebrew]
translated from their original load bearing structures to the structural syntax of the concrete skeletal structure.  

This line of objective reasoning, excluding cultural dimensions from the disciplinary effort to divulge a modernism anchored in place would inform other architects and educators working in Palestine at this moment. The preoccupation with architecture adapted to the local climate was addressed in a number of studies published by Alexander Klein, who held a teaching position at the Technion from 1935. Similar to his earlier systematic, mathematical analyses producing the “formula” for *Existensminimum* published in the late 1920s in Germany, and much akin to the *Neue Sachlichkeit*’s “cult of the objective”, Klein executed a painstaking study on the influences of climatic conditions on the architectural plan and elevation. Suggesting optimal performance vis-a-vis wind directionality and light source according to a seasonal cycle, Klein’s taxonomy established similarities and differences between three geographical case studies: Tel Aviv, Berlin, and Oslo, avoiding cultural considerations in design process.

At this moment, the desideratum for assuming a local architecture – a situated modern style – was anchored in objective, scientific measures and the appeal to indigenous building was on the grounds of such measures. Autochthonous forms and configurations were acknowledged as successful in climatic management and cultural values and norms participating in the process of shaping built form were overlooked. But when Posener reflected on the problematic issue of architectural transference from Europe to Palestine, his thinking seemed to have broadened this mechanistic account of situatedness:

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Perhaps we were mistaken to introduce into our homes every 'innovation' we came across... there is no doubt that we should study the way in which building and dwelling have taken place in this country before us. In solutions achieved by others we may find our way in resolving the problem of how to build a home in the Near East.\textsuperscript{50}

Notably, his inclusion of the verb in present participle form \textit{dwelling} (Hebrew verb – יָלָד = ladur = to dwell / to live), indicated not only a reference to an accumulated knowledge of building procedures, but also an orientation to cultural substances – dwelling habits and norms – which were inextricably linked with and effectively took part in the shaping of architectural forms. These nuances in Posener’s text distinguished him from his contemporaries, and his position would remain suspended between a conviction in the objective foundation of form and its malleability by cultural factors.

\section*{1.2 Typology as Design Method. 1930s.}

Posener’s ensuing methodology and his appeal to study indigenous architecture for the purpose of assuming a situated modernism were preformed on the basis of a typological study although, it was not specifically termed so at the time. Turning to the study of type – the courtyard type – allowed Posener to address the moment’s pressing dilemmas mentioned above, namely: How to achieve a situated modern architecture? How to remain modern by mirroring present material reality and avoiding a relapse to outdated construction procedures and their corresponding forms, while concurrently establishing a sense of belonging, a task unavoidably bound with tradition? Typological reasoning offered a means through which architects in the \textit{Yishuv} could potentially overcome their predicament: the lack of unmediated connection to their

new territorial home. Through an appeal to constituents, internal to the architectural discipline, Posener effectively offered such a connection through the medium of architecture itself.

This strand of thinking was already intimated in Ratner’s earlier text. Ratner, like Posener, established a separation between structural constituents and ornamentation, the latter perceived, at the time, as an added component to the former. Denouncing the attempt to imitate Arab ornamentation and to incorporate it in a structural system incongruent to its own, he then mentioned an alternative means to reach a correlation between a modern architecture and extant Arab forms:

*Another and more hopeful attempt was made by several architects and notably by the late Alexander Baerwald, who tried to use not only the ornamentation and external characteristics of Arab architecture (pillars, arches etc.) but also to adopt some of its more essential principles such as the general lay-out of the buildings, the relation between wall-spacing and apertures, etc.*

The concept of type has preoccupied architectural theorists for centuries. Quatremère de Quincy’s *Historical Dictionary of Architecture* (published 1832-33) articulated the concept coherently maintaining that type was a general concept acting as a regulative idea. In this sense it resembled the Platonic ideas, in themselves unrealizable, but in which the entire phenomenological world took part. In other words, the architectural *type* was unrealizable but served as a metaphysical construct for the realizable *model*. While Posener made no direct reference to this understanding of type, his writing bore particular resemblances to it. It raised the issue of classification and categorization based on comparable structural properties. It presupposed the existence of fundamental similarities between elements that constituted reality and, in this sense, revealed the possibility, even inevitability, to think of reality as hypernymically

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structured. Notably, this methodological grouping transcended temporal, geographic, and cultural differences, and like the type’s proposed pure conceptuality – posed by early French 19th century theory – it was intended to safeguard it from the vicissitudes of concrete phenomena.

For Posener, the notion of typology in architecture was concerned with the essence of the architectural object; it proposed an understanding of this object as belonging to a family of related objects. In this respect, it interpreted the architectural object as a singular, discrete and individual event belonging to and anchored in a wider referential system. The unquestioned distinctiveness and uniqueness of the object were simultaneously bound to a generic horizon. Therefore, it was clear from the outset of his typological investigation that an inherent dialectical relationship existed between the formal structures which group objects together and the individuation of each specific case. The typical versus the particular was sustained within his discourse.

While Posener’s methodology could have been criticized for promoting determinism and impeding the creative process, as typological thinking often was and for this reason rejected by many of the early modernists, it should be emphasized that in its essence it suggested the opposite. Posener’s text recognized the inimitability of the architectural object and intended no literal reiteration of historic precedents:

*I do not wish to say that we should copy the courtyard, the iwan and the winter rooms. But these homes conceal the possibilities of admitting the character and beauty of our country into our homes.*

The acknowledgement of type did not necessitate its copying. In fact, since type could not be materialized it evaded the possibility of being copied per-se. As a schema and ruling

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53 One example of the rejection of past solutions in architecture is evident in the Bauhaus, which, upon the insistence of Gropius, omitted such studies from its curriculum.

principle, type was a general common denominator, existing among continual variations. The model was precisely that which constituted such variation. It was the actual demonstration of the type and was, therefore, inclined to represent the particularity, individuality and concreteness of the architectural object and its site-specific, culture-specific adaptation. According to Quatremère de Quincy, advocate of the complete separation between the type and its adjustable models:

*The word type presents less the image of a thing to copy or imitate completely, than the idea of an element which must itself serve as a rule for the model... The model, understood in this sense of practical execution, is an object that should be repeatable as it is; contrariwise, the type is an object after which each artist can conceive works that bear no resemblance to each other. All is precise and given when it comes to the model, while all is more or less vague when it comes to the type.*

This mode of reasoning had a number of implications for the case in Palestine: it debunked the reductive dualisms of East versus West, Classical versus modern. Rather than a sheer rejection of vernacular building as a polar opposite to the modernism of the West, Posener’s thinking offered a more subtle reading into the inalienable connection between the two. Reminiscent of Le Corbusier’s parallelism between the Classical, the anonymous vernacular and the machine aesthetic, it reinstated the profession’s enduring categories, discerned throughout different times and locations. Architectures of the Orient and the West, anonymous vernacular buildings and those realized by the “functional” embrace of modern machinery were potentially cases – *models* – in which typological similarities persisted. Although contradistinctions could be made between the architectures of different cultures, they could bear a similar typological substructure.

Typological rationale suggested that a process of sublation characterize the relationship between modern architecture in the *Yishuv* and the greater region’s vernacular building traditions. Structural components of Near East architecture were to be both canceled and preserved. While different construction methods, new applications of materials and new agents reshaped architecture, there were, according to Posener’s line of thinking, disciplinary constituents that were irreducible to present circumstances. In other words, while architecture was anchored in contemporary conditions and requirements it also transcended them. While it was responsive to forces outside itself, it also sustained inherent disciplinary principles. Modern architecture in the *Yishuv*, while clearly adhering to the tenets of universalism, was not relieved of tradition. It did not escape historical continuity but was dialectically engaged with it.

The telos of progress was broadened to acknowledge the value of tradition. Posener’s typological analysis countered the *Yishuv*’s 1930s zeitgeist’s abandonment of history, and identified the concept of tradition with that of actual reality. For him, the foundations of current affairs lay beyond the present moment. The engagement with architecture’s past proposed a reevaluation of its representational goals and, ultimately, reflected on its ability to convey meaning. Posener’s study suggested that architecture conveyed meaning not through a denotational process but through a wider connotational structure. In other words, the significance of form resided not in the immediacy of the present but in its capacity to link the present with the past. Form thus gained its layers of substance and meaning only through an accumulative process that tied it back into history. The idea of type reestablished a connection with tradition and history and represented the hermeneutic / communicable nature of the perceived environment.\(^{57}\) The

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man-made world was not only produced according to a typological framework, its collective and transmittable nature was based in typological understanding.

Posener’s analysis extended beyond the boundaries of Palestine and beyond Arab ethnic or Islamic architecture. Starting with the ancient Greek city Priene, on the West border of today’s Turkey, through further East toward what is currently Syria, back West toward the Etruscan house, and South to Cairo, and temporally spanning a period of over 1700 years, he recounted the various manifestations of the courtyard house type. Acknowledging that this type afforded suitable means to address climatic concerns (admitting fresh air into the depth of the house and moderating the harsh glare), his descriptions explicitly integrated cultural factors as well. The enclosed courtyard and the rooms surrounding it were not only formed to accommodate winter versus summer lodging but were equally shaped according to habitual conventions. Posener remarked on the seclusion of the internal courtyard from outside views and adumbrated the various social dimensions attributed to the type’s configuration. The basic structure included spaces accommodating guests and formal family events, and those belonging to the more private and better-isolated sections of the home. The Atrium and Peristyleum in the classical version were modeled in Islamic architecture as Selamlik and Haremlik, and the mediating space of the Tablinum reinterpreted to the Islamic Iwan. Whether the gradation of Atrium, Tablinum and Peristylium was maintained or combined into one space – when urban density precluded the inclusion of a separated Peristylium – Posener reinstated the significance and relevance of the courtyard type to modern living in Palestine and referenced Le Corbusier’s interpretation of the type in his ensuing proposal to reintegrate the courtyard and reposition it on the roof.58

Tolerance for variation and interpretation within the typological framework enabled masons and later, architects to address specificities of culture, site and climate. In other words, the different material conditions and representational objectives within which architecture operated could affect and be reflected in the type’s realizations – in the models. The courtyard typology could persist through changes in construction materials and building procedures, in rural or urban sites. Its structural foundation could remain intact while responsive to a variety of cultural requirements. This enabled Yishuv architects to attain situatedness through an appeal to tradition while encouraging them to employ modern opportunities relevant to the present. It offered a historic frame of reference without committing to a specific cultural or ethnic pedigree.

The same notion rose in a publication issued by Paul Engelmann for the Tel Aviv Museum in 1946, in which Engelmann popularized his sense of Loss’ ideas. The publication included a number of texts by different authors. The one titled: Unsere Wohnung (our house, Hebrew translation: courtyard houses) by Richard Munk, maintained that the application of the courtyard type in Palestine was indeed “in Loosian spirit.” Architecture along the Mediterranean had often included courtyards, and since there was no need to artificially change living practices still pertinent to the region, the courtyard remained a viable reference type. “The viewer may think this is a romantic or Orientalist home, but upon closer observation he will be forced to conclude that in every detail the most functional solution was applied…”

A typological argument revealed the allegorical dimension within the perception of an architectural object through a recollection of a type’s past and different realized models. Although

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59 Engelmann was Loos’ student. He collaborated with Ludwig Wittgenstein on the Stonborough House (also Haus Wittgenstein) in Vienna, which was completed in 1928. Engelmann emigrated to Palestine in 1934. Artur Glikson was one of the contributors and will be further discussed in chapter 3.

it suggested the employment of a known type, in this case the courtyard, it utilized association through analogy in order to encourage the observer to engage in its polyvalent character. It used the inherent gap between the type and its realization in the model in order to provoke the interpretational potential of the architectural object and, equally, provoked the recognition of similarities and differences among the different models. Posener’s concluding remarks, however, blurred this potential semiotic strength and reoriented the significance of the type to its a-cultural and syntactic substance. He emphasized, once again, the persistence of the courtyard type based on objective, measurable and “natural” factors, delaying those affiliated with the qualitative domain of human habits and cultural qualifications.

We found this in all the courtyards we have examined; in the later Arab houses they reached their highest development... This is why we must conclude that not a people’s specific character created them but that they were an essential response to the conditions of climate and nature.61

Based on his closing comments alone, Posener’s position reflected the suspension of cultural constituents, endeavoring to establish the courtyard type as predicated on objective, quantitative measures, impervious to the qualifications of particular values and traditions. Yet, as can be gleaned from the assortment of models he had studied, as well as from his remarks pertaining to ways of life, it is reasonable to conclude that his typological research was, in fact, dialectically structured: On the one hand, the turn to type as an internal construct to the architectural discipline – a conceptual essence of which no material substance can play a role in molding – is reminiscent of type as understood by Quatremère de Quincy, and is used (albeit unconsciously) in order to avoid unwanted cultural references and anchor the question of situatedness in objective criteria. On the other hand, with his acknowledgment of customary practices and cultural norms, Posener’s study showed that this initial Platonic sense of type was

not as hermetically sealed against the fluctuating and the changing as intended. This is to say that
the construction of type as an ideal idea untouched and unaffected by phenomena necessarily had
some account of the material world when establishing a detached sense of it. What is intimated in
Posener’s analysis is the notion that the various models – the application of the ideal type and its
adjustments to meet cultural or climatic concerns – were essentially already implicit in the type.
As Quatremère de Quincy’s Platonic version would insist: there is something constant in the
changing. But, equally, one would conclude: there is something changing in the constant. Type,
according to this line of reasoning, was not as invariable as initially opted by neo-Platonists but
subject to evolution and dependant on experience.62

In the ensuing address of the courtyard type by modern architects of the *Yishuv* it was
evoked, transformed and abstracted. From a mediator of temperatures, modulator of light, object
representing the surrounding natural environment, and core around which circulation took place,
the courtyard also assumed cultural significance when serving as an enclosed, outdoor room
within the layout of and for various practices within both private and public architecture. Whether
at ground level, sunken beneath as an anchoring device to its site, lifted to punctuate higher levels
in the building or, finally, surmounted on the top of a building as a *toit-jardin*, the type
materialized in a range of interpretations.

1.3 **The Courtyard. 1950s, 1960s.**

Architect Dov Karmi, Sharon and Posener’s contemporary and a contributing editor
and publisher of *Habinyan* in which Posener’s text was published, began treating his building’s as
crucibles in which elements from West and Near East interact in order to reproduce something

old, but new, something specific to its place of materialization and universally – typologically – accountable. Karmi was born in Odessa in 1905 and immigrated to Palestine in 1921. He first studied painting at the Bezalel Academy in Jerusalem and then completed his architecture and engineering studies in Belgium at the Special School of Civil Engineering and Arts and Manufactures annexed to the University of Ghent (Ecole Speciale du Genie Civil et des Arts et Manufactures). In 1957 he became the first architect awarded the Israel Prize, the state’s highest honor. A number of his post war projects offered an abstraction of the courtyard type, in some cases offering it as an inhabited space in which the programmatic functions of the building took part.

Two public projects designed by Karmi and his partner Zvi Meltzer subscribed to this typological notion. Both located at the Hebrew University’s new campus on Givaat Ram. As a consequence of the 1948 War, the Hebrew University campus on Mount Scopus was territorially isolated from West Jerusalem and the establishment of an alternative campus was decided upon. Givaat Ram, situated above Emek Hamatzleva (Valley of the Monastery of the Cross) would house the new campus, and would later accommodate other national institutions as the Israeli Knesset (House of Parliament), the Israel Museum, the National Library and the Israeli Supreme Court. The architects responsible for the master plan were Richard Kaufmann, Heinz Rau, and Joseph Klarwein. Construction began in 1953.

Karmi-Melzer, designed the Campus Administration Building and the Weiss Auditorium during the mid-1950s (Pl. 1.3 05,06). Both were situated on the Northwest corner of the public entry square designed by Shimon Povsner. The square marked the beginning of the campus’

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63 The gap of a decade between Posener and Sharon’s texts and the realization of the type in public buildings was largely due to the fact that building in Mandate Palestine in the 1940s was largely curtailed because of the war.
elongated gardens situated at the heart of the campus at the summit of its hilly terrain. Although singular objects in and of themselves the buildings were threaded together by an arcade, extending from the Administration Building, through the Weiss Auditorium and continuing longitudinally to bind other buildings along the gardens’ western border.

Noticeable upon examining the plans and perspectives is the conspicuously different parti of the two buildings and their overall form: The Administration Building is an unspecified rectilinear solid amidst a lower rectilinear base, and the Weiss Auditorium is a fan shaped polyhedron encased by a lower rectilinear structure. The difference, however, is not as noticeable from ground level, likely due to the regularity of the arcade and the uniform treatment of the local oblong stone cladding, placed vertically with continuous raked joints, possibly done to accentuate the fact that the stone was a veneer (Pl. 1.3 09).

In both buildings, Karmi–Melzer integrated an outdoor, open room within the building’s configuration. As the plan and perspective drawings indicated, both spaces were cutouts, voids extracted from built forms (Pl. 1.3 10,11). In the Administration Building the courtyard was situated within the building’s base – a single-storey lower mass from which a receded, narrower protruding six-storey building rose. The courtyard was situated at the center of the plan linking the arcade from which it was separated by a thin wall, with the projecting mass. It was an internalized open space around which the interior spaces were structured and, equally, a buffer zone between the outdoor public square serving the entire campus, and the interior spaces of the administration offices.

A modern interpretation of a peristyle, it was glazed and delineated by an ambulatory (Pl. 1.3 12,13) and visually contiguous with the spaces around it. Formally, it served as a cohesive

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65 The gardens were defined by the pedestrian Magnes Boulevard to the East, named after Judah Leon Magnes, a reform Rabbi and leader of reform Judaism who played a seminal role (along with Albert Einstein and Chaim Weitzmann) in the establishment of the Hebrew University. Magnes was president of the university from 1935-1948.
element around which the interior spaces were structured. It also introduced natural light and fresh air into the building’s interiors. Finally, it bore a symbolic role: It was a man-made representation of the natural environment, an abstracted fragment of that environment. As Sharon and Posener had suggested, it was a means to include the “beauty of the land” in the configuration of the plan. Through these capacities the courtyard anchored the building into the campus. It reflected the tension between the building’s autonomy while still insisting on its reliance on the surrounding site. The building, in this sense, was a whole onto itself and part of a system outside itself. (Pl. 1.3 10)

I have mentioned that one possibility for achieving the connection between object and surroundings was by means of representation. Another possibility was by means of analogy. Although the magnitude of the campus gardens was clearly different than that of the single courtyard, and the two differed in materials, elements of construction, and organizational layout, there was a principal tertium comparationis between them. The courtyard in the single building, typologically rooted in the classic peristyle, can be read as a scaled-down analogue of the open public space in the campus. Analogy, as Quatremère de Quincy observed, not only structured the relationship between the type and its realizable models, it was also a means of association between the models. The analogy I am suggesting between the courtyard and the campus gardens is less apparent in formal appearance than as a commensurable idea. In this case, the idea is defining a shared public space surrounded by individual elements, which, notwithstanding their distinctiveness, can still convey a sense of belonging to a whole. In the campus this is manifest in the different schools surrounding the gardens. In the Administration Building it appears in the different administration offices surrounding the courtyard.

The campus’ master plan was predicated on garden-city principles, in many ways contradictory to the idea of a courtyard, and the concept of freestanding pavilions amidst a green
expanse was part of its generating idea.66 Thus, several detached buildings were situated along its elongated gardens. The extended arcade, however, qualified the idea of separate buildings by threading them together along its path. Extending the entire length of the gardens, the arcade was the main artery for movement along the campus grounds, and by linking the individual buildings to one another it established a legible, common façade toward the gardens. This reflected the notion of preserving singularity among each school comprising the university while still achieving a sense of the institution as a whole. As such, it embodied the history of the linguistic forms that have come to reflect the idea of an academic institution. The word campus, for example, is etymologically rooted in a Latin word, meaning field. This would suggest that the university campus was essentially comprised of a clearing in or around which individual buildings came together for a collective purpose – the pursuit of learning. The meaning of the word college also reinforced the idea of a formal association of distinctive elements, bound together within a certain framework in order to pursue shared goals. The word originated in the Latin collegium – pointing to a voluntary (legate) association or mutual participation (co) of individuals. Likewise, the word university, stemming from the Latin universitas reflected the idea of an agglomeration of things turning (verse) into one (uni).67

Historically, the courtyard type materialized in both private and public architecture and, correspondingly, throughout a range of scales. The cloister in monastic architecture was a transposition from the Etruscan house peristyle and would later emerge in several university campuses. In other words, the university campus was the historical sequel of the monastery and

66 J. Klarwein and D. A. Brutzkus, “The Planning of the University Campus in Jerusalem,” Hanadasa WeAdrikhalut 24, (March-April 1965), 9-11. [Hebrew with excerpt in English].
67 The etymology and meanings of these terms were usefully set out by David Leatherbarrow in a lecture called ‘Universities,’ given on March 3, 2014, in a course entitled ‘Cultural Ecology,’ co-taught with Richard Wesley, at the University of Pennsylvania.
tied to a similar typological lineage. Although the campus in Givaat Ram does not involve a tight conglomeration of buildings firmly encircling a clearing, the entrance square and gardens, and the arcade defining their western border structured, albeit much more loosely, the reading of the campus as an integrated whole.

Establishing analogies relieved the notion of type from the boundaries of size. This is also implicit in the very act of analogy, stemming from the Greek *analogia* rendered in English, via Latin, as *proportion*. Type, therefore, was subjected to *scaling*. While analogy, inherent to type-model analysis, required the subordination of type to ratios and the maintenance of certain proportions, it also meant, as I have suggested, something beyond proportionality and actual measures. Analogy also implied a non-concrete and immaterial similarity, what I have called a shared idea or purpose. The act of proportioning a meal (giving suitable portions) illustrates the non-metric sense of the term. Creating a formal *and* conceptual connection between a building and its setting and by so doing maintaining a correspondence and reciprocity between them allowed modern architecture at the Hebrew University’s new campus to find its local bearing. Maintaining this connection between the scale of a campus and that of a single building revealed that the courtyard-type was not only a design method intended to anchor a singular object to a historically constituted type but, also a means to anchor this object to its surroundings – its physical and social setting. Type had a temporal connection to history and a spatial connection to settings by means of analogy.

In the Weiss Auditorium, the courtyard reached beyond the building’s boundary extending its footprint beneath the ground level of the public square to form a sunken garden. Since the auditorium was situated on a hilly terrain, the focal point of its fan shaped projection was anchored at a lower level, ascending toward the entry square. (Pl. 1.3 16). Although the

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courtyard corresponded to the lower level of the auditorium and was accessible from it, it was not a void subtracted from the building mass, but one subtracted from the public square adjoining it. (Pl. 1.3 11,17). As such, it was programmatically part of the Weiss Auditorium but also part of the public square, which formally defined three of its sides. The arcade was now suspended above the courtyard and physically entwined within the boundaries of the Weiss Auditorium (Pl. 1.3 14). Like it, the courtyard was a space of mediation, negotiating between the building and the campus. Merging building with site or object with background had, like in the previous example, both a formal and conceptual implication.

The concept of situatedness was thus literally suggested: the sunken courtyard at the Weiss Auditorium was an anchoring device, rooting the building to its settings. It was achieved by an overlapping geometry of building and site. In this sense it literally (physically) situated the building in the landscape. As an extension of the bottom level foyer and exhibition space, the courtyard also assumed a programmatic value: shaded, by trees and climbers creating a microclimate, it offered an inhabitable outdoor space and enabled its adaptation for potential use. The concept of situatedness was, therefore, broadened: by virtue of its ability to respond to and modulate given natural conditions (light and temperature), the building was anchored in the site no longer by a geometric construct alone. Potential situatedness was attained through adaptation in order to meet the specificities of context. Situatedness became a correlate of the building’s performance. Finally, as an inhabitable space, the courtyard assumed a social value. The question of situatedness consequently involved the accommodation of social practices.

Karmi-Meltzer included courtyards in other buildings. The Zacks House (1953) and Ort Singalovski School (1956-1959), both in Tel Aviv, were cases in point. In the house the entire configuration was structured around the second storey courtyard (Pl. 1.3 19,20). The inclusion of an enclosed patio and a roof garden (a variation of the toit-jardin) pointed to the notion that an
element of architecture could undergo a scalar transition, in this case appearing as an open room in a spatial configuration above ground level. This had informed the work of Le Corbusier in the 1920s. In the Pavillon de l'Esprit Nouveau at the Paris Exposition des Arts Décoratifs (1925) the prototype dwelling unit was a development of the courtyard type. The earlier schemes for low cost workers’ housing known as the Maison Citrohan (1920-1923) also evoked the type in the form of the roof garden, and in 1922 it appeared in the Immeubles Villas (the villa-apartment block) suggesting that villa life could be introduced, even in vertically stacked form, into the centers of cities. This double-sided residential block made a dual reference to the type: in the large shared enclosed courtyard including the tennis courts, and in the private “hanging garden” in each apartment.

In the school courtyards interposed a larger public platform and played no significant part in the overall arrangement of the buildings. The school was an asymmetrical orthogonal composition of four rectilinear solids and three main open spaces (a more detailed analysis of its syntax will be discussed in chapter 5). (Pl. 1.3 21,23). Karmi-Meltzer planned an expansive clearing marking the moment of arrival and separating the school from the street (Pl. 1.3 22). This platform, running the full length of the main building in the forefront, was perched above undulating terrain and supported by pilotes (Pl. 1.3 25). It was co-planar with the main road from which it was approached by an equally suspended pedestrian bridge. The leveled platform and the strict rectilinear geometry of the building were intentionally disjoined from the uneven ground. Hovering above the ground, the platform was punctuated by sunken courtyards around which the school facilities at basement level were located (Pl. 1.3 24). Though clearly bearing a climatic function by allowing fresh air and natural daylight to penetrate these lower spaces, it is more

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69 This was largely accredited to Le Corbusier’s visit to the Charterhouse of the Valley of Ema, a Carthusian monastery in which the type is referenced in both the cloister and in each individual monk’s cell.
difficult to attribute the formal, cultural and symbolic bearings of the courtyard typology in the case of the school.

Other typological interpretations followed and courtyards with scalar differences appeared in a variety of configurations in Israel. The School of Economics and Social Studies by the Yasky-Povsner practice (1954-1958) also in Givaat Ram is a case in point (Pl. 1.3 26-28). Yasky and Povsner also collaborated with architects Amnon Alexandroni, Ziva Armoni, Hanan Hevron, Michael Nadler and Shulamit Nadler in the design of the Hebrew National and University Library on campus (1956-1960) likewise including internal courtyards in its plans (Pl. 1.3 29,30). The newly formed partnership between Yasky and Alexandroni applied the type to the Metal Research Station at the Technion, completed in 1963 (Pl. 1.3 31-33), and Povsner, no longer in partnership with Yasky, incorporated a stepped courtyard corresponding to the declining terrain in his design for the School of Industrial Engineering also at the Technion (Pl. 1.3 34).

In the Technion’s new campus in Haifa, the design of which was contemporaneous with the plans for the Hebrew University’s campus in Givaat Ram, additional courtyard models followed. They appeared in single building as well as in grouped configurations. Alexander Klein drew the first Technion master plan in 1953 following the decision to erect a new campus on Mount Carmel. The gist of his plan included a vehicle road encircling the sloping campus grounds in which individual schools would be located. Within the grounds Klein specified pedestrian paths and in the center of the plan, directed toward the Haifa Bay, he preserved a green axis. Shlomo Gilad’s master plan from 1965 was predicated on Klein’s work but sought ways to integrate the dispersed and somewhat isolated buildings, as the natural sloping terrain and existing vegetation obstructed connections between them. “Existing decentralization,” Gilad
wrote, “impeded the creation of an academic life on campus.” The new master plan tried to preserve the Carmel Forest’s natural landscape as well as coordinate and consolidate the different parts of the institution in order to facilitate the emergence of a collective academic community. In this context, Arieh Sharon and Benjamin Idelson’s design for the Technion Forum “the core of the campus” is a telling example. The choice of the historically evocative term – forum – pointed to the project’s intention. It was comprised of three buildings: the Churchill Auditorium, the Senate House and the Main Library linked by and defining open platforms at different levels. Meant to connect the higher main road to the different schools scattered at the lower levels of the slope and intended to define a shared public space for the campus, three open spaces at varying levels were established: the “piazzetta”, the “central piazza”, and the “sunken garden.” Each of the three buildings included an enclosed courtyard within their plans (Pl. 1.3 35-37).

At the Weizmann Institute in Rehovot the Ulmann Institute was conceived around a central courtyard. At the Tel Aviv University the Faculty of Humanities completed in 1965 and planned by Werner Joseph Wittkower (also responsible for the campus master plan), Artur Baumann and Israel Stein was another case in point (Pl. 1.3 38). Other examples on campus were the School of Business Administration and Finance planned by Benjamin Idelson with his new partner since 1964 Gershon Zippor (Pl. 1.3 39). Almost all the competition entries for the Music Academy on campus incorporated internal courtyards (Pl. 1.3 40), as did the competition entries for the on-campus Museum of the Diaspora (Beit Hatfutsot) (Pl. 1.3 41,42) though the final building by Yitzhak Yashar and Eli Gvirtzman (1966-1978) did not subscribe to the type. Rechter-Zarhi-Rechter architects referenced the type in the Law Court Buildings in Tel Aviv, The School of Archeology in Jerusalem and a Community Center in Beer Sheba (Pl. 1.3 43-46). Aba

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and Hannah Elhanani gave their interpretation at the Philip Murray Culture Center in Eilat (1954) (Pl. 1.3 47,48).

The internal courtyard appeared in model plans drawn by the Public Works Department for daycare centers and synagogues (Pl. 1.3 49). With this, type became a reproducible product indicating standardization and mass production. In this sense a compelling example was the Pavilion Hospital for Developing Countries designed by three practices: Arieh and Eldar Sharon Architects, Benjamin Idelson, Yaakov Hertz, Gershon Zippor Architects, and Andre Leitersdorf, Elya Belsitzman Architects. (Pl. 1.3 50). Arieh Sharon was responsible for several medical complexes in Israel, many of which incorporated the scalar interpretation of the courtyard, but the Pavilion Hospital was predicated on standard generic units, which could then be multiplied in various configurations and for different purposes. Intended for export to countries with a low Human Development Index (H.D.I.) the project was largely predicated on the transference of technical expertise in the field of construction and on Sharon’s accumulated knowledge in planning medical institutions. The generic L shaped pavilion consisted of adaptable modular units, prefabricated but also adjustable to meet “varying medical demands and local requirements.” Enabling layouts with “flexible expansion” in a variety of configurations, the L shaped unit-prototypes were conceived “together with their patios, gardens and pergolas.”71 The courtyard was subsumed into standardized units and patterns.

While this chapter has tied the pursuit of situatedness to the use of typology in design, and specifically read the courtyard type as bearing formal, climatic, representational and cultural meanings, some of the abovementioned examples reveal that the type was only partially interpreted through this manifold. In some instances it appeared as an emptied iconographic element, bearing no organizational meaning for the building’s layout or cultural value for its

users. This may be partly due to its marginal role in the configuration of these buildings, or its treatment as a mere climatic device. In both cases the courtyard was denied its significance as a binding constituent around which the family or the institution’s life took shape.

When examining some of these case studies the issue of scale, mentioned above, seems to resurface as well. To make this point clearer it would be helpful to recall Adolf Loos’ competition entry for the Chicago Tribune Tower in 1922, to which he submitted a colossal Doric column-cum-skyscraper. The intended travesty aside, this transposition points to the difference between quotation and translation, or literal versus analogous intentions (clearly, more forcefully apparent when an entire building is formed in the image of an architectural element.) I am returning here to the notions of scale and proportioning because they are both associated with measurement. Measurement, however, does not only involve a certain rigid rule (something that determines size according to a given norm) but implies correct measure, extending, therefore, the matter of scale to the question of suitability. It seems that in some cases the courtyard was denied the opportunity for suitability, which entails the type’s adaptation and particularization for the purpose of use and inhabitation. The structural principles of the courtyard type were not sufficiently flexible in these instances. As a result, although these courtyards may have conformed to the analytical substance of the type, they fell short of recognizing its synthetic possibilities.

When, however, the courtyard assumed a constituting role in the organization of the plan, and was able to sustain adjustment and appropriation, the concept of type as a pure formal idea was recharged with cultural substance. By assigning the courtyard/patio a role in domestic and public life and allowing it to be modulated by this capacity, Israeli architects reaffirmed that social conventions and cultural values occupied a seminal role in the actualization but also in the

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conceptualization of type. The goal of situatedness would, accordingly, no longer depend on objective criteria alone. The process of situating modern architecture in Israel would be tied to and conditioned by the process of acknowledging and anticipating, accommodating and directing ways of life.

2. **Constituting the Public Domain**

2.1 **Tel Aviv. Consolidation of Urban Cores. 1925-1950.**

1948 marked a new beginning in Israeli history, distinct in many respects from previous decades. The transformation from aspiring to achieve national independence to one officially declared as such precipitated ineluctable concrete and conceptual changes. The absorption of hundreds of thousands of immigrants flooding the new state in the years following its foundation posed immediate challenges, above all the mission of literally building a new nation and housing its new populace. This not only entailed addressing objective, material and practical demands but also the construction of a new *national identity*. The planning professions, called on to participate in the material construction of a new nation, were simultaneously engaged in a major symbolic task. Architectural production revealed its material foundations along with its traditional representational role. The opportunity to construct a new national collective identity, in which many writers, poets, and artists were solidly engaged, was a challenge for the architecture as

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73 The debate over the politicization of the arts in Israel took a sharp turn in 1948, symbolically corresponding to the year of declared independence. A subversive group of artists led by Joseph Zaritsky left the Artists Association and established an independent group “Ofakin Hadashim” (New Horizons). Notably, what instigated the rift was a debate over the representation of Israel in the Venice Biennale. The New Horizon “recusants” called for an abstract art, renouncing mimetic realism and the subjugation of art to the establishment and its national ideological purposes. These avant-garde artists promoted a universal art that would engage with questions of locality in ways that are non figurative and non thematic. They aimed their critique at the politically engaged works of Israeli social realism (many of which were the product of artists in the Kibbutzim – the Israeli collective communities) influenced by Picasso’s Guernica, and the socially and politically minded works by the Brazilian painter Candido Portinari. For more on the formation of
well. Capable of accommodating and representing this “new collective” were largely spaces of a shared public domain.  

The urban population of Palestine increased significantly throughout the fourth and fifth waves of immigration (Aliyot) over the years 1924-1931 and 1931-1939 respectively. Unlike earlier pre-state immigration waves, which were predominantly framed by Zionist ideology and comprised a younger population, these later waves included older immigrants, many with families and financial means, not necessarily committed to any kind of socialist ambition. The majority of these immigrants came from Eastern and Western European cities and chose to settle in established urban centers of Palestine. Many of them were professionals, industrialists, and academics who subsequently contributed to the cultural and economic development of these cities. Tel Aviv consequently became Palestine’s economic and cultural center, operating throughout the pre-state period as a political nucleus in which most of the para-state and pre-state institutions were based. With the establishment of the State of Israel in 1948, Tel Aviv was its effective capital until the government relocated to Jerusalem in December 1949.


In the first decade following Israel’s declaration of independence much of the planning effort was directed towards realizing the central government’s decentralization policies and dispersed settlement plans. Public space was typically the product of strict zoning principles, a domain allocated primarily for public use segregated from other uses. (This was explicit in the master plan, which was published in book form in 1951. See Arieh Sharon, Physical Planning in Israel, Jerusalem: Government Printing Office, 1951. The plan will be discussed in chapter 3.) This was not necessarily the case in existing cities, where the planning of numerous neighborhood-scaled centers rendered the urban fabric a space of interconnectedness and mutual dependency. The debate about the nature of the public domain gained increasing intensity in Israel during the first decade of statehood, testifying to the significance of public space as a potential means for social cohesion and collective representation.

In 1931, before the large fifth immigration wave, Tel Aviv had 46,000 residents. Within two years, its population grew to 80,000. In 1934, it reached beyond 100,000 residents, and in 1936 its population measured 150,000. Quoted in Nathan, Marom, City of Concept: Planning Tel Aviv, (Tel Aviv: Babel, 2009), 107. [Hebrew].

See Anita Shapira, Ben Gurion, Father of Modern Israel, (Tel Aviv: Am Oved, 2015) [Hebrew].


The Israeli Declaration of Independence (Megilat HaAtzmaut) took place on May 14th 1948 in Tel Aviv in the former home of Tel Aviv’s first Mayor, Meir Dizengoff, located along Rothschild Boulevard. At that time, the home had already been assigned its new role, housing the first art collection of the Tel Aviv Museum of Art (Dizengoff dedicated his home for this purpose in 1930 after the death of his wife Zina.)
The growing tensions between the Israeli central government and the city’s administration would emerge during the first decade of statehood reflecting the power struggle between the national objectives of the first and those pursued by the institutions, political parties and local administrations who had operated and managed the Jewish settlement in Palestine in the years preceding national independence. Perhaps, the most revealing expression of this conflict was Prime Minister Ben Gurion’s endorsement of Statism (*mamlachtiyut*) advocating the transference of legislative, administrative and strategic planning authority from pre-state institutions and political parties (*tnuatiyut* and *miflagtiyut*) to the newly established Israeli government bureaus.\(^79\) The government’s development and planning strategies, many of which had informed institutional policies prior to independence, such as the Jewish National Fund (JNF) and the Jewish Agency for Israel (JAI), advocated and promulgated a comprehensive national and regional state plan in which decentralization along with deurbanization, territorial occupation, and population dispersal were to become key objectives. Through the policy of these agencies the central government endeavored to curtail not only the physical and demographic expansion of Tel Aviv but also its political strength.\(^80\) Although the city’s economic significance was incontrovertible, the government’s socialist agenda and support of collectivist ideals were at odds with a more liberal economic policy practiced in the very heart of the Israeli bourgeoisie. At the same time, though not entirely congruous with the government’s socio-economic policies, Tel Aviv’s looser laissez-faire attitude was conveniently often overlooked, thus revealing an irresolvable tension of tacit cooperation between various divergent social and economic programs of the moment.

\(^{79}\) The question of Statism (*mamlachtiyut*) is often seen as a conflict between, on the one hand, the pre-state *Yishuv*’s voluntarism, advocating social and national utopianism and, on the other hand, bureaucratic statism which sought to centralize power, transform Zionist utopianism into a prosaic state mechanism in which state interests take precedence over both individual and factional interests. See: Avi Bareli: “*Mamlachtiyut* and the Labor Party in the Early 50s, Structural Premises,” in Mordechai Bar-On ed., *The Challenge of Sovereignty*, (Jerusalem: Yad Yizthak Ben-Zvi, 1999), 23-44. [Hebrew].

\(^{80}\) Eran Eldar, *By its Own Efforts, The Urban Development of Tel Aviv in the Twilight of the British Mandate and the First Decades of the State of Israel*, (Tel Aviv: Resling, 2013), 69-129. [Hebrew].
Unlike many of the post-state regional plan initiatives for new, mid-sized, functionally zoned cities, Tel Aviv operated within an existing urban morphology, deployed in a master plan first conceived in 1925 and formally instated in 1929 – the Geddes Plan – informally named after its progenitor, the Scottish planner Sir Patrick Geddes, and already referred to as the “Urban Building Scheme 1927”. Tel Aviv’s urban structure was, therefore, contextually and conceptually framed by a rapidly consolidating urban fabric in which primary and ancillary streets were delineated, lot sizes defined, and dispersed open/public spaces outlined, rendering the city as a matrix of low buildings interspersed with open spaces and gardens. The idea of functional zoning was not ignored by the Geddes Plan, which sought to prevent the unlimited sprawl of commercial uses throughout the city mostly through the demarcation of its principal arteries. The actual plan, developed by the Technical Department in the Tel Aviv Municipality following the Geddes outline after his departure from Palestine, already included generic specifications for commercial and industrial zones combined with mixed-use areas for commerce and dwelling, as well as zones strictly reserved for dwelling. It was, however, through the revised building constitution for Tel Aviv, Urban Master Plan 44, devised and submitted to mandate officials in Jerusalem in 1932 and approved in 1937, that these functional distinctions came to be more rigorously defined. This plan restricted industrial uses to the southern parts of the city and to the old neighborhoods existing before the Geddes Plan. The northern parts (north of Bugrashov Street – the area on which Geddes focused) were designated primarily for dwelling, although dispersed public institutions and a limited variety of commercial functions were included. The 1938 “Tel Aviv Town Planning Scheme 1927 (Amendment 1938)”, Master Plan number 58, lent further detail to the functional designations of the earlier Geddes Plan in which Tel-Aviv’s northern territory was, once more, primarily designated for dwelling with a building density fixed at 35

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See the parcellation map according to the Geddes Plan in Catherine Rochant Weill, Patrick Geddes’ Plan for the ‘White City’ of Tel Aviv, PhD dissertation, Universite Paris 8, 2006. The Geddes Plan was framed by Jaffa in the south, the Mediterranean Sea to the west, Hayarkon River to the north and today’s ibn Gavirol Boulevard to the east.
percent of the land coverage. A number of linear commercial zones were included along the two major arteries – Ben Yehuda and Dizengoff Streets while further north, a concentrated and compact commercial area was designated near the city’s slaughterhouse.\textsuperscript{82}

As current research has shown,\textsuperscript{83} in addition to augmenting the Geddes Plan with more elaborate functional restrictions in the 30s, Tel Aviv also pursued its aspiration for territorial expansion. In the early 40s the Mandate Administration granted the city its territorial requests, and the boundaries of the city extended east to the Ayalon River and north beyond Hayarkon River (the city’s extension east yielded another 4000 dunams, and north added approximately 5000 dunams).\textsuperscript{84} These territorial ambitions, however, soon came to a halt. The conflict that impacted the \textit{Yishuv} during World War II caused a decline in immigration and building and thus modified the earlier ambitions of a functionally zoned expansive city.

During the war, Tel Aviv’s primal goals shifted to two distinct but complementary directions: outward – toward regional planning, in which the city would perform as one constituent among others across a regional platform. This entailed collaboration among different municipalities enabling their residents to benefit from an inter-city relationship in which their various needs would be addressed not only at a local level but also at a regional scale. This linked the economic and cultural life of Tel Aviv to the residents of Herzliya, Ramat Gan, Petah Tikva, Jaffa, Holon, Bat Yam and Rishon LeZion, to name a few, and was, according to Tel Aviv’s Head Engineer, Ya’akov (Ben Sira) Shifman, “closely interwoven so as to affect the development of the city and its future. No attempt is made to absorb other communities [into Tel Aviv]… In the

\textsuperscript{82} Nathan, Marom, \textit{City of Concept: Planning Tel Aviv}, (Tel Aviv: Babel, 2009). [Hebrew].
\textsuperscript{83} Ibid.
\textsuperscript{84} Ya’akov Ben Sira, “The Urban Development: The Size of a City,” Symposium on the Problems of Planning and Development, \textit{Handasa WeAdrikhalut}, 5, (1943), 12-13. [Hebrew].
end, it is a question of inter-city compatibility.\footnote{85} Ben Sira studied engineering at the University of London in the 1920s, and upon his return to Palestine joined the office of the British architect and town planner Clifford Holliday who had been assigned by the Mandate government to draw master plans for several cities in Palestine. Tel Aviv Mayor Meir Dizengoff, who had also invited Geddes to complete the first of the city’s master plans, appointed Ben Sira Tel-Aviv’s head engineer in 1929, a position he held until 1950. Ben-Sira was also a valuable contributor to the Engineers and Architects’ Journal and chaired the Engineers and Architects’ association between the years 1943-1945. In a symposium \textit{The Problems of Planning and Development} in 1943, he further contended:

\begin{quote}
Years ago I stressed that these cities [i.e. Bat Yam and Holon – cities bordering Tel Aviv] must be seen as separate from Tel Aviv, and I consider it a mistake to treat them as Tel Aviv’s suburbs. They must consolidate inwardly and develop independently, with a correlation to Tel Aviv as the main city in the region; but in no way that may cause blurring to their independent image.\footnote{86}
\end{quote}

Maintaining the independence of each city, but according to the regionalist concept of inter-city relationships and keeping the city and the country interdependent, Ben Sira also argued for the preservation of land between cities, purposely restricting their growth while preserving territorial reserves for the agricultural production that was intended for feeding nearby urban centers. Ben Sira’s thinking represented a shift in the perception of the city characteristic of regionalist sensibilities. From being an independent entity, the city was now acknowledged as a component within a region. Thus once the initial expansion of territorial and judicial boundaries had been established in accordance with the goal of functional zoning, Tel Aviv turned its

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85 Included in footnote 89 in: Nathan, Marom, \textit{City of Concept: Planning Tel Aviv}, (Tel Aviv: Babel, 2009), 153-4. [Hebrew].
\end{flushright}
attention toward consolidating “its own independent image”. In the 11th meeting of the municipal engineers held in Tel Aviv in March 1941, Ben Sira delivered a speech titled *Aspects of Present and Postwar Municipal Policy*, in which he called for local communities and groups within the city to participate in planning efforts so that their cultural aspirations would be given spatial formation. Private entrepreneurship was also encouraged in order to accommodate collective and individual welfare. The city also initiated public competitions for designing public spaces and cultural institutions of a national stature.

In the same symposium on *The Problems of Planning and Development* Ben Sira advocated through his speech *The Urban Development: The Size of a City* a comprehensive, regional design strategy, in which the development of rural settlements and agriculture were in tandem with the development of urban industrial production. His speech echoed Zionist ideology, which sought to restrict urban expansion and advance rural communities. However, at the same time it also stressed the importance of adopting planning strategies for populated urban areas. He reiterated his earlier aims of functional zoning devoted mainly to separating industrial areas from residential districts in the case of Tel Aviv to the alleviation of the city’s congested conditions through territorial expansion to the east and north – objectives he had embarked upon a decade earlier. Yet, these operational and functional requirements were mediated by the introduction of another aspect of urbanity. Ben Sira approached this by maintaining that a primary question in “designing the image of a city is its size – in terms of population and territory”. Urban critics, he continued, “have associated sheer size of a population and the density of its habitable environment with societal deterioration, and with the gradual effacement of the individual and his social stature. In place of such urban blight, they extolled mid-sized cities with their time-honored

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87 Included in footnote 89 in: Nathan, Marom, *City of Concept: Planning Tel-Aviv*, (Tel Aviv: Babel, 2009), 153-4. [Hebrew].
cultural sediments and civic lifestyle, aiding social consolidation and creating a collective atmosphere – essential ingredients in any dwelling configuration.” In opposition, he argued, “We hear the advocates of the city pointing to the boredom and ennui of small communities and, on the contrary, the cultural accomplishments of urban crowding.” Ben Sira noted the inability to reach a conclusive consensus regarding these issues and maintained that, aside from territorial and demographic calculations, one of the measurable criteria for evaluating the desirable size for a city had been examining the efficiency of its public services, appraised through cost of services per citizen in terms of city taxes. Notably, however, he insisted that ultimately the evaluation of a city could not be reduced to such “clear mechanistic” measures.

There are values and other tests far more crucial... If the feeling of space is lacking in cities, if dwellings fail to nurture family life, if spaces for intimate communion are scarce, if the image of the individual is fading, if the city lacks public institutions and opportunities for collective association, and if its cultural life is faltering, then even if its services are efficient, its lack will be greater than its gain.

Emphasizing the city’s obligation to the social requirements of its citizens, Ben Sira maintained: “cities, which are overly large in number or excessively spread-out, impede social cohesion and the association of the individual with a larger group without obliterating his own character.” Addressing the cultural and social aspects of urban life and recognizing their essential role in shaping civic identity modulated his avid quest for territorial expansion and functional zoning – hallmarks of his efforts to modernize Tel Aviv. Committed to the question of Tel Aviv’s growing urban population, not solely on a functional basis but on a qualitative one as well, he pointed to London’s advantage over other urban metropolises, contending that “it was essentially

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90 Ya’akov Ben Sira, “The Urban Development: The Size of a City,” Symposium on the Problems of Planning and Development, Handasa WeAdrikhalut, 5, (1943), 9. [Hebrew].
91 In 1943 there were 160,000 residents in Tel Aviv, in 1948 this number reached over 200,000. Ben Sira’s speech reflected on the city reaching no more than 250,000 to 300,000 inhabitants.
a consolidation of several towns and villages, in which central spaces for public practices and a public spirit still existed, compared with cities whose growth was around one central urban core. While not intending an atavistic reproduction of London’s configuration (“shaped over centuries and transformed by the process of intensive industrialization”), a task he deemed irrelevant for a city in current formation as Tel Aviv, he did uphold the structural principle of London’s multiplicity of public centers, each contributing to the expression and consolidation of civic identity. His observation of and appreciation for the multiplicity of public centers would consequently inform the urban development of Tel Aviv in the following decades.

Ben Sira articulated the idea of compiling cultural institutions and establishing a number of urban civic centers throughout the city again in the early 50s (after he had left his position as the city’s head engineer.) While addressing the question of a master plan for the municipal unification of Tel Aviv and Jaffa, he advocated a “sequence of urban centers” to accommodate the city’s expansion: “Increasing urban centers is not a purposeless goal. Subject to accelerated growth the city will extend itself and only focus points with distinct urban characteristics can confer upon it the appropriate splendor that is found in urban consolidation.” Echoing his earlier appreciation of London’s additive configuration, Ben Sira now resolutely articulated the value of several “focus points”. In place of a single centralized nucleus, these centers would be distributed across the city. Such a planning principle had formal and practical implications. While answering various immediate requirements of local residents, these decentralized centers would also provide for different functions at both a municipal and a regional scale, and even possibly accommodate

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This point was also made by Steen Eiler Rasmussen in his book London the Unique City published in Danish in 1934. The first English edition was published in 1937.
93 In 1927 the British Mandate government decided to separate Tel Aviv from the Jaffa jurisdiction area and proclaimed them two different cities. The unification of Tel Aviv and Jaffa was officially declared by the Israeli government in October 1949, and implemented in April 1950. For more on the Tel Aviv and Jaffa frontier see: Eran Eldar, By Its Own Efforts, the Urban Development of Tel Aviv in the Twilight of the British Mandate and the First Decade of the State of Israel, (Tel Aviv: Resling, 2013), 80-91 [Hebrew].
institutions of national importance, thus rendering each center as formally and functionally distinct from other centers. Diverse articulation of purpose would impart a unique urban identity to each center and its immediate milieu and, subsequently, facilitate the orientation within the city and thus its perception as an integral compound whole. Distributing the city’s public civic spaces, in which the accommodation of the local neighborhood was synthesized with municipal, regional and national functions, gave national importance to local interventions, but also scaled them to acquire relevance within their own particular urban circumstance. Such a synthesized product, a hybrid of local and national intentions in which different “publics” were addressed, was correspondingly interpreted spatially in the development of diverse public spaces.

It was Geddes’ intention to compile Tel Aviv’s future cultural institutions into a 40-dunam site symbolically termed the “Cultural Acropolis”. Though he supported the dispersion of ancillary libraries, cinemas, theatres and other small cultural facilities throughout the town, the city’s future, he thought, entailed establishing a centralized cultural complex. Located between Rothschild, Ben Tzion and King George Boulevards, it was envisioned as the convergence of several cultural and educational institutions, working in a mutually beneficial manner. Not wanting to compete with the Hebrew University in Jerusalem (for which he had drawn a master plan, which was not executed) or with the Polytechnikum (Technion) campus in Haifa, Geddes, nevertheless, thought these institutions should expand their academic activities by establishing extensions in Tel Aviv. The complex was also to include a central library “for this large reading public several libraries are of course already in evidence; yet all these as inevitably at first, upon a modest scale. But it is now full time to be planning on a larger scale than even the old Town House can admit; the more since a community reading in so many languages has far wider

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demands than can any similar sized city in Europe. There is thus no avoiding such provision: and it is at this time of town planning for the future that an adequate and central site has to be found and reserved, one with space for substantial extension, as growth demands.”96 A municipal theatre as well as an opera house were to accompany the central library as Geddes maintained that “indeed here is the first point at which it is for Tel Aviv to take the foremost lead, as necessarily the dramatic and musical center for Palestine; and with Jerusalem and Haifa as but on the second plane to it, and minor centers upon a third level…”97 Geddes’ propitious sentiment would indeed materialize as Tel Aviv would become the county’s formal musical capital with the establishment of the Israeli Philharmonic Orchestra in one of its cultural complexes, which also included the National Theatre.

In addition to university extensions, a central library, theater and opera house, and their complementary conservatorium, and school of eurhythmics and dancing collaborating with a center of gymnastics, Geddes envisioned schools and kindergartens located on campus and capable of utilizing its variegated facilities. Notably, these facilities of “high standard of music and dramatic art” included folk music “for every country and language, indeed every region and dialect, is an inestimable heritage…” In short, the complex would offer musical performances “the fastidious compositions and performances of Rubinstein and his peers”, and theater productions, as well as develop into a comprehensive center of musical and dramatic education. Geddes mentioned Professor Schatz, founder of Bezalel in Jerusalem, the endeavors of whom were discussed in chapter 1. Correspondingly, he believed studios and workshops, as well as exhibition spaces should be located in the “Acropolis” and finally an art museum as well as a science museum. Unlike Schatz’s motivation though, Geddes understood the objective of an art museum as extending beyond the limits of portraying objects of Jewish tradition. The science

96 Patrick Geddes, Town Planning Report – Jaffa and Tel-Aviv, (1925), 51, Tel-Aviv Municipality Archive.
97 Ibid.
museum was thought as a center for applied science with laboratories and technical workshops also providing for technical education, but Geddes insisted it should offer theoretical and “intellectually pioneering” science as well. To these somewhat traditional institutions he added a woman’s college and a worker’s college congruous to the prevailing social-labor agenda of the *Yishuv* while simultaneously reflecting his aspiration that the complex facilitate interactions between technical, educational and social aspects of life, as this could be maintained by insuring the propinquity of these cultural institutions.

The symbolic ascription of an Acropolis was directly acknowledged as Geddes analogized this “edge of the city”, which comprised a very large nucleus, with the monumental edifices of earlier cultures, maintaining their capacity to impart civic and cultural values to the citizens. “Every city of the past which has adequately risen to the conception of the Culture-Institutions seen and felt appropriate to the expression of its ideals, and of its developing civilization (Civicisation, as that is) has chosen for these purposes the very noblest site within its area. Hence the sublime situation of the Temple of Jerusalem; and so too of every Acropolis throughout the Hellenic world: and so again for the Cathedrals of the Middle Ages, their Town Houses and civic Belfries as well. Such location was not merely a matter of architecture or aesthetics: it carried with it a full yet ever deepening civic sense, an extending and enduring influence throughout the city; and thus in time became its main glory; and this alike for its people and even for humanity beyond – as witness the Temple, and the Acropolis or Cathedral once more.”

This ideal complex in its projected utopian sense was never realized in full, one reason no doubt being the ramifications of shifting land use, entailing the expropriation of a large amount of privately owned land for public purposes. Intended for Tel Aviv of 1925 the “Acropolis” was

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historically transfigured. After considerable alterations to the city’s frontiers during the early 40s, the reoriented objectives of urban consolidation through a multiplicity of dispersed centers; the rendition of the intended “Cultural Acropolis” also gradually revealed (over the decades of its construction) an attunement to mundane urban life taking place in its vicinity. The scaled-down version realized on an adjoining site, became both formally and programmatically engaged with the city’s fabric and practices.99

2.2 Tel Aviv. Amid the National and the Local. 1953-1964.

The concept of a civic culture center occupied many architects in the post war period not only those in Israel. It became specifically relevant in the context of reconstruction after the destruction of many European cities in World War II. It also had significant bearing on practice in the U.S., where planners were grappling with the consequences of suburbanization, ubiquitous sprawl and, subsequently, the issue of urban renewal. At a moment when many post war reconstruction projects subscribed to the prevailing paradigm of the Functional City, the civic center emerged as a counterbalance, offering an opportunity to reconsider the neglected more traditional aspects of the city.

Formulated in CIAM’s (Congrès Internationaux d'Architecture Moderne) fourth congress in Athens in 1933, the principles of the Functional City became the predominant guidelines for city planning, influencing modern planning discourse and determining many of the post war

99Already in 1940, plans for the extended city to the East (General Master Plan no. 50) revealed the distribution of open spaces and public institutions amidst dwelling territory. The symbolically laden and singular “Acropolis” transformed into a range of civic centers, materializing in the late 50s and early 60s. Among them were the expansive public square and building of City Hall, built approximately 700 meters north of the intended Acropolis, and the Tel Aviv Museum of Art, the Public Library and Magistrate Law Courts, decades later joined by the Tel Aviv Opera House and Cameri Theatre, which jointly comprised another civic, cultural complex, at roughly the same distance to the East. Educational institutions were consequently spread across the city and in the 60s, Tel Aviv University was established on a separate campus north of the Ayalon River.
planning efforts. The focus on the four main “functions” of the city: dwelling, work, recreation and circulation and their segregation across the urban spectrum was after the war extensively criticized and planning practice became reoriented toward an emphasis on civic and social relevance. Lamenting the neglect of the “distinguishing marks of the city”, social critics and progressive planners expounded on the inadequacies of a city drawn out according to the above four functional categories alone. The city, argued the American architectural historian, Lewis Mumford, as early as 1938, was a “geographic plexus, an economic organization, an institutional process, a theater of social action, and an esthetic symbol of collective unity.” For Mumford, who became a key figure in the critique of the Functional City in the early 40s, such a city was predicated on a mechanistic analysis, unduly reductive and neglecting the social, cultural and political aspects of urban life. Joined by other voices from within CIAM, including those recognizing the symbolic significance of historic city centers (particularly supported by the Italian delegates), architectural historians and practitioners began questioning the adequacy of the Functional City model, seeking in addition to the four functions a civic and cultural core, wherein a “sense of community” could be expressed. This became a fundamental theme in post war architectural debates. It converged with the theme of the “city’s nucleus”, officially manifest in CIAM’s eighth congress in Hoddesdon, England, in 1951, where the civic center played a

100 Although Le Corbusier published the principles of the functional city in book form only in 1943, his book La Ville Radieuse (The Radiant City) in which the ideals of the functional city were already present was published in 1933. The tenets of the Athens Charter were also published in various architectural journals albeit in different forms. Because of disagreements among CIAM members, different texts labeled “Resolutions” and “Constatations” (Observations) were published after the meeting, for example, in the Paris Gazette des Beaux-Arts in 1933, and in the Technika chronika – Les Annales Techniques in Greece, which was then published in different languages in Spain, Italy, Switzerland, Holland, and Belgium. In the 30s, CIAM groups throughout Europe published the ideas of the functional city in their affiliated journals (Opbouw and L ’equerre for example). Sert’s Can Our Cities Survive, published in 1942 in the U.S. was also predicated on functional city directives. For a more detailed account of the publications of the functional city guidelines see: Eric Mumford, The CIAM Discourse on Urbanism, 1928-1960. (Cambridge, Massachusetts: The MIT Press, 2000), 73-104.

101 Lewis Mumford, The Culture of Cities. (London: Secker & Warburg, 1938). Although the Charte d’Athenes (Athens Charter) was only published in 1943, the ideas of the functional city were already well known in 1938.

102 It was mostly due to his criticism that Josep Lluís Sert revised his manuscript for Can Our Cities Survive?, shifting its focus from the functional city to the civic center. Sert, a prominent member of CIAM who would become the organization’s president from its sixth congress at Bridgewater in 1947, until the tenth congress in Dubrovnik in 1956, grew increasingly interested in the social and political character of the civic center, a central subject in his plans for cities in Latin America in the mid-1940s.
prominent role in what was symbolically termed the main theme of the congress: “The Heart of
the City”.

The first Israeli delegate to CIAM conferences participated in this meeting at Hoddesdon. It was the Viennese born architect Alfred Neumann, who immigrated to Israel in 1949, and at the time of the conference was teaching at the Technion in Haifa, later performing as Dean of the Faculty of Architecture and Town Planning between the years 1953-1958.

In Tel Aviv, the modified rendition of Geddes’ original idea for the “Cultural Acropolis”
was ratified in 1946 when the Tel Aviv Municipality initiated a public competition for planning a
civic center adjacent to the Habima National Theatre. Oskar Kaufmann, a Hungarian émigré
planned the theatre in 1934 but the inauguration ceremony only took place in 1945. The
building was located at the Northeast corner of Geddes’ “Acropolis” on a site, which he had
designated for public institutions. The competition in 1946 reflected Ben Sira’s concepts of
reorienting urban design towards cultural form and imparting a civic image to each city, it was an
act of urban consolidation linked to the step of dispersed urban centers, and combined with
restricting urban sprawl through state planning on a regional scale. The site would eventually
accommodate three of Tel Aviv’s seminal cultural institutions: the already existing National
Theatre, the Mann Auditorium known for its appellation in Hebrew: Heichal Hatarbut (literally a
culture palace), home of the Israel Philharmonic Orchestra, the building of which began in
1953, and the Helena Rubinstein Art Pavilion, an extension of the Tel Aviv Museum of Art
completed in 1959. The program underwent different stages. It ultimately incorporated a number

103 For these developments see Eric Mumford, The CIAM Discourse on Urbanism, 1928-1960, (2000; Cambridge,
104 The corner stone for the Habima National Theatre was laid in June 1935 in the presence of the British High
Commissioner of Palestine, Arthur Grenfell Wauchope, Moshe Sharett, then head of the political bureau at the Jewish
Agency for Israel (JAI) and later Israel’s second Prime Minister (1954-1955), and Mayor Meir Dizengoff. The building
was inaugurated in 1945.
105 See the Town Planning Scheme in which the public square had already been outlined. The scheme shows the square
as the convergence of Rothschild Boulevard and Chen Boulevard. Rothschild Boulevard was one of the first Boulevards in Tel Aviv. It already existed when Geddes outlined the city’s master plan.
106 The building has been renamed in 2013 The Charles Bronfman Auditorium.
of commercial uses in spaces leased by the Tel Aviv Municipality.\textsuperscript{107} As stipulated in the program, these initially included a bookstore, a flower shop, and a local taxi station, on the upper level of which there was to be a greenhouse.\textsuperscript{108} Two open public spaces were integrated in the complex: a public square (included in the early drawings, its scale temporarily dwindled, ceding to a public parking lot) and a partially enclosed public garden (introduced into the program in the early 60s.) (Pl. 2.2 01,02) The entire site was comprised of approximately 20 dunams, surrounded by a dense pattern of dwelling units, typically three to four stories high. As the early plans of the city illustrated (Pl. 2.2 13), it was at the culmination of the prominent existing Rothschild and Chen Boulevards; The first, descending toward the site, the second, ascending towards it, both converging where the land began to rise toward an existing mound on which their stood three venerable sycamore trees (see also Pl. 03,04)

A compilation of different functions, the complex synthesized institutions of national import and residential fabric. The design demonstrated a stratified concept of the public domain in which a range of “publics” was accommodated and a variety of uses addressed. The design reconciled quite different architectural scales.

The fabric of the existing surroundings was both a physical backdrop and an indication of normative, and habitual practices, which had an impact on the overall shaping of the forms. Integral to the consideration of the expected practices the spaces were to accommodate was the question: who was the public for whom the spaces were intended? The working premise in the designing of the complex was predicated on the acknowledgment that “the public” was a superordinate label, applied to a diverse subject. As I have already suggested, the center ultimately accommodated a variety of “publics”, indicating that a program of national stature,

\textsuperscript{107} In 1964, the America-Israel Cultural Foundation sought to establish its headquarters in the complex, in place of the allotment for commercial uses (See letter from the foundation to Mayer Mordechai Namir. Tel-Aviv Municipality Archive, section 4, מ/10/1.)
\textsuperscript{108} See documentation in the Tel-Aviv Municipality Archive, section 4, מ/10/1.
including national institutions, and drawing users from across the state, could also be qualified to accommodate the residents in the local neighborhood. Correspondingly, different activities would potentially take place there, from collective and festive gatherings related to the cultural institutions to local mundane practices associated with the small shops and enclosed garden integrated into the complex.\textsuperscript{109} The spaces were also moderated to accommodate large group associations as well as an intimate rendezvous or a secluded repose from the hustling urban surrounds. (Pl. 2.2 05-07) The diversity of these practices was an essential ingredient in the planning of the complex, without which the spaces would not have served their intended function.\textsuperscript{110} While formal principles were unmistakably a seminal constituent in the production of the spaces, it was this second category, the design’s inflection with regard to \textit{praxis}, which transcended purely aesthetic considerations so as to address ethical concerns. By reflecting on and accommodating diverse activities, the design of the complex reconnected public space to the everyday existence in the prosaic world. The architectural ensemble was a product tied to and experienced \textit{in} everyday life.

\textsuperscript{109} One of the seminal characteristics of this public space (which many of the different activities it accommodated had in common) involved a sense of exposure to others, what George Baird, following Richard Sennett, expressed in more favorable terms as an opportunity for social encounter. Addressing this human inclination for group association could not have relied on the simple designation of a space as “public” or, as I have argued, on its formal features alone. The spaces in the complex assumed their “publicness” when responding to and reflecting their potential users innate social and cultural requirements, and interpreting them spatially. The quantitative concerns involved in producing or evaluating public space were thus paralleled by qualitative measures, extricating the discourse on public space from the confines of aesthetics to include ethical concerns. The public domain, however, was not only associated with collective interaction. Different degrees of public exposure and certainly a range of possibilities for interaction with others have informed theories on public space. Ben Sira expressed this idea when considering the values of urban life: “…Allowing for the individual’s seclusion, when he so desires, and enabling his association with a greater community, when he feels the need… a need for privacy – on the one hand, and social activity – on the other…” (Ya’akov Ben Sira, “The Urban Development: The Size of a City,” Symposium on the Problems of Planning and Development, \textit{Handasa WeAdrikhalut} 5, (1943), 10. [Hebrew].)

The public domain could, therefore, be associated with collective purposes, but also with those attuned to the safeguarding of the individual.\textsuperscript{110} When parallel design efforts in the “development towns” failed to reflect upon this caveat by separating the civic center from the dwelling clusters, social critics and planners were ultimately bound to acknowledge the failure of this design methodology, conceding that the dwellers’ fundamental cultural and social requirements were not adequately addressed. This reaction would ultimately instigate a reconceptualization of public space producing integrative design programs later in the decade. The third part of this chapter will concentrate on these developments and their corresponding architectural typologies.
Occupied with the symbolic purpose of public space, the design was engaged with prospects for collective representation. The public domain was a means for projecting an image of the public it accommodated. In Israel, the objects of architecture and the discourse involved in their materialization and evaluation were inextricably tied to the expression and realization of collective values, particularly in a moment in which considerable effort was expended to realize a new national identity. Architecture in and of the public domain was a reflective and molding mechanism, revealing and constructing an image of the new “public” in its new national home. In this capacity, it became an agent through which a prevailing but also desired shared ethos could be made manifest.

Apart from the National Theatre, which referenced Classical form, the first modern building erected on site was the result of a collaboration between Zeev Rechter and Dov Karmi – the Mann Auditorium for the Israeli Philharmonic Orchestra (Pl. 2.2 08,09). The Helena Rubinstein Art Pavilion was later commissioned to Zeev and Yaacov Rechter (Pl. 2.2 10). Zeev Rechter’s son, Yaacov who after his father’s death became a partner in the office of Rechter-Zarhi-Peri, the principles being respectively architects and an engineer, and a municipal head landscape architect, Abraham Karavan planned Ya’akov Garden, the semi-enclosed garden tying the projects together (Pl. 2.2 11,12). Realized in 1964, the overall assembly was located at the convergence of the Rothschild, Ben Zion and Chen Boulevards and was bordered by the Tarsat Boulevard, and the Huberman and Dizengoff streets. In this regard, it was a natural point of congregation (Pl. 2.2 13). Originally, the City Hall was supposed to have been built on this site. In maps from the 30s it is in fact named City Hall Square. This initial designation never

111 Authorization to implement their collaborative project for the Mann Auditorium for the Israeli Philharmonic Orchestra was issued in 1950. Construction began in 1952 and the building was completed in 1957.
112 Located at the culmination point of the city’s prominent Rothschild Boulevard, it had already been assigned its role in public life by the Geddes Plan, designated in the plan as “public open space” and a “space for public sites”. After the First Arab Israeli War, when Jerusalem was still under siege, Tel Aviv operated as the political capital. The area in front of the Habima Theatre was a collective assembly space, in which several social and political events took place. Plate 2.2 01 was published in the Tel Aviv Municipality Newsletter, pamphlet 7-8 (year eighteen), 1948-49.
materialized, and the municipality was established in the mid 60s at the opposite end of Chen Boulevard in the Kings of Israel Square – a public domain already designated in the Geddes Plan which became a more extensive public space in the mid 60s.

The Karmi and Rechter cultural complex was framed by the Habima Theatre to the west and the Mann Auditorium to the north and further enforced by Karmi’s earlier plans for the concatenated four-storey residential buildings along the east side of Huberman Street (Pl. 2.2 14) Karmi rejected Tel Aviv’s parcellation policies in which the divisibility of the block into smaller lots generated disassociated architectural forms. Single buildings surrounded by green space, and regulations stipulating a set-back building-line were the legacy of the Geddes Master Plan, heavily influenced by Garden-City ideals. In their place, Karmi sought to establish a contiguous border, which would help define the public square. This was no simple undertaking; the monumental entrance to the Habima Theatre never faced the square, and the building’s opaque mass remained a hindrance to the overall balancing of the elements surrounding the square. The Mann Auditorium remained the only building whose entry required passing through this public space.

Mindful of the impending obstacles to the project’s realization, the Tel Aviv Municipality approached Yohanan Ratner, Dean of the Technion’s School of Architecture, in order to review the proposals for the site’s development. Proponents of a “classical arrangement” in which the auditorium would be axially positioned in relation to Rothschild Boulevard questioned Rechter and Karmi’s off-axis parti, and Ratner was asked to opine on the subject. In a statement

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113 Interview with Ada Karmi Melamede, Dov Karmi’s daughter, in July 2014.
114 It should be noted that for many years the square served as a parking lot. It was converted into its initial intended purpose in 2013 (renovation works began in 2007 and ended in May 2013. Sculptor Dani Karavan, the son of Abraham Karavan who co-designed Ya’akov Garden was responsible for the project). This prolonged materialization was subject to much debate, evident in 1964 in a press conference for the opening of Ya’akov Garden, during which Tel Aviv Mayor, Mordechai Namir, guaranteed the lot’s designation as an open public space reassuring Tel Aviv residents that it would become a public garden “organically extending Ya’akov Garden.” Published as: “A Two-Storey Garden Will be Inaugurated in Tel Aviv Today,” Herut, (May, 1964).
complemented by an analysis of a site plan presented to the municipality in March 1953, Ratner addressed the formal arrangement of the masses with an emphasis on the public square, remarking as follows:

A strictly axial position was not in fact “classical” but “classicistic.” The positioning of the Parthenon in relation to the Acropolis’ entrance is “classical”; the Madeleine in relation to the “Royal Boulevard” in Paris is “classicistic.” If we observe the map of the site, the proposed concert hall is situated “classically,” and it will be seen not frontally and directly but angularly and indirectly, like the Parthenon... A “classicistic” arrangement, axially positioned in respect to the Boulevard, is not appropriate for the following reasons: A) Axiality usually requires the symmetry of the axis in relation to its surroundings. The “Habima” building on the one hand and the facades of dwellings further away on the other, do not create a suitable frame for the work, and even though the building would have appeared to be ‘correctly’ situated when approached from Rothschild Boulevard, the lack of spatial balance would have been revealed upon entry to the public square. B) Even if the concert hall, as it was then planned, had been axially positioned in relation to Rothschild Boulevard, the goal would not have been achieved, because the mass of the building would not have been seen from this direction. The plans and models demonstrate that this mass is concealed behind the foyer’s elongated façade mounted on columns. It appears as a slight protrusion above the roof devoid of a clear plastic relationship to the overall composition from this southern side. C) Axially positioning the main mass of the building in relation to Rothschild Boulevard would have further divided the public square into small lots.\footnote{Yohanan (Eugen) Ratner in a letter submitted to the Tel Aviv Mayor’s office on March 13th, 1953. Ratner’s analysis included a map. Tel Aviv Municipality archive, section 4, Heichal Hatarbut, \( \gamma \)/5/14. [Hebrew].}

Notwithstanding his rebuff of the axial precept, Ratner’s endorsement of Rechter and Karmi’s proposed plan remained ambiguous. For him, the pith of the argument was the public square. As he has written:

It is my opinion that what is expressed in the overall planning of the square is the fact that Tel Aviv has not yet grown accustomed to its own real scale. This area is one of the few, perhaps the only one, between Jaffa and North Tel Aviv, in which a space of appropriate dimensions could have been created. The proposed arrangement of the buildings divides this important space into small, disconnected portions. As proposed, the only connected spaces remain those of
area A – 6.7 dunam, B – 2.5 dunam and D – which is slightly off center. Is this not the persistence of “parcelation” thinking?\textsuperscript{116}

Ratner, it would seem, was positively disposed toward a singular more capacious venue befitting a city with a remarkable population growth and few public spaces for their accommodation. This advocacy took place in conjunction with deliberations concerning the Kings of Israel Square, at the opposite end of Chen Boulevard, approximately 800 meters north of the site, which would ultimately become the city and state’s main setting for public demonstrations and collective events once it was completed in the mid 60s. The Kings of Israel Square as a public open space was also drawn in the Geddes Plan.\textsuperscript{117} In the 20s the area was replete with orchards and vineyards and included an open field.\textsuperscript{118} The water reservoir supplying irrigation for the crops served as a local bathing pool, once the Tel Aviv Municipality purchased the land in 1925. The municipality initiated a public competition for the design of the square in 1947. Finally, in 1952 Avraham Yasky and Shimon Povesner’s proposal would ultimately win first prize. Initially the intention was to erect a commemorative space for the soldiers – residents of Tel Aviv – who died during the War of Independence. The plan was deferred and realized more than a decade later after the construction of City Hall was completed in 1964. Unlike the dimensions and scale of the public square at the Heichal Hatarbut culture complex, the Kings of Israel Square was considerably more monumental,\textsuperscript{119} as if resonating and complying with Ratner’s reasoning.

Yet the underlying aesthetic virtues of the Rechter-Karmi proposed scheme hardly eluded Ratner’s attention, nor did the concept of a visually layered or spatially qualified connection

\textsuperscript{116} Yohanan (Eugen) Ratner in a letter submitted to the Tel Aviv Mayor’s office on March 13\textsuperscript{th} 1953. Ratner’s analysis included a map, Tel Aviv Municipality archive, section 4, Heichal Hatarbut, сть/5/14. [Hebrew].
\textsuperscript{117} The Square was renamed Rabin Square after Israeli Prime Minister Yitzhak Rabin who was assassinated there after a peace rally on November 4th 1995.
\textsuperscript{118} See maps in Tel Aviv Municipality Archive, Darianov Maps (7)
\textsuperscript{119} For a detailed description of the development of Kings of Israel Square see: Sharon Rotbard, Avraham Yasky, Concrete Architecture, (Tel Aviv: Babel, 2007), 91-132.
between one public space and the next. In his very same analysis, Ratner extolled the visual connection between the public square and the public space, which would later become Ya’akov Garden: “There is no doubt that a view from a public square through columns toward another public square is a beautiful architectural element”. But the site’s undulation, he maintained, would ultimately occlude this visual porosity. Because the space in which Ya’akov Garden would later be situated was several meters higher than the square it effectively became a barrier obstructing views to what lay beyond it. Notably, it was precisely this “impediment” that would charge the planners’ imagination soon informing the design of the enclosed garden on site. Rather than leveling the terrain, the complex conformed to the site’s natural preconditions and embodied a scheme that was unsympathetic to a monumental or “classicistic” reading of space.

In the Mann Auditorium the architects let the concert hall assume a unique formal articulation, specifically manifest in the protruding roof, which received a great deal of attention on account of its technical novelty at the time of construction (Pl. 2.2 15,16). The differentiation between the body of the concert hall and the surrounding foyer had already been realized by Robert Matthew and Leslie Martin in their plans for the Royal Festival Hall in London completed in 1951 as part of the Festival of Britain. In the Mann Auditorium the formal independence of the auditorium body and the reflection of its function were qualified by contextual adaptations. The concert hall contained over 2700 seats (Pl 2.2 17), but its vast measures were barely noticeable from the building's exterior. The structure did not exceed the height of its neighboring buildings, and it sensitively receded inward from the building’s boundary (Pl. 2.2 09). Like Karmi’s plan for the Weiss Auditorium in Jerusalem, it was a building within a building (Pl. 2.2 18-20). Any formal idiosyncrasies, which may have emerged from the structural expression of the concert hall, were barely noticeable from the street, and the structure’s potentially massive affect was significantly reduced. The architects’ concept combined both a singular architectural object and
its contextual placement. This duality was enacted through a mediating device – an inclined plane of plate-glass enclosing the foyer around the auditorium – mediating between a particular architectural entity and its surroundings (Pl. 2.2 19,20).

By recessing the glazed foyer wall, except on the north facing façade, the auditorium was equipped with balconies on the second floor, on the northeast and southeast frontages (Pl. 2.2 20). A third west-facing balcony serving the upper foyer would later mediate between the foyer and the Ya’akov Garden (Pl. 2.2 21). In these instances, open space, realized by subtracting volume from the potential mass of the building, reshaped the figure/ground relationship and served to integrate the building with its context. Since on its northern border the site descended toward the east, the east façade reasserted the mass-form. By providing second floor balconies, which were contained within the building’s trabeated structural system, the architects maintained the skeletal appearance and reduced its presence on the street (Pl. 2.2 09). Monumentality was avoided. The rhythmic and regulating columnar system, the moderation of the auditorium by emphasizing its horizontality, its perimeter with full height plate-glass, the articulation of the building’s interface with its attendant urban space, and qualifying the intermediate in-between space eschewed any trace of Beaux Arts monumentality.

The issue of monumentality, categorically avoided by the modern architectural avant-garde of the 20s and 30s, reemerged in the midst of the Second World War. Mumford’s declaration of 1938 that “if it is a monument it is not modern, and if it is modern it cannot be a monument” as this appears in his book The Culture of Cities of that year was a principle of the pioneering modernity. Monumental expression in the pre-war period was an architectural convention associated with repressive regimes and totalitarian symbolism overwhelming social

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reform. However, in 1943 in their manifesto *Nine Points on Monumentality*, Josep Lluís Sert, Fernand Léger and Siegfried Giedion opined that:

*Monuments are human landmarks which men have created as symbols for their ideals, for their aims, and for their actions... They are the expression of man’s highest cultural needs. They have to satisfy the eternal demand of the people for translation of their collective force into symbols. The most vital monuments are those which express the feeling and thinking of this collective force – the people.*

While not expected to relapse to the construction of “empty shells”, which could “in no way represent the spirit or the collective feeling of modern times”, modern architecture was, nevertheless, challenged to engender forms capable of expressing collective and civic meaning.

The ethos of the “new monumentality” was in many respects integral for the formation of a civic center. Yet, while Giedion’s sense of a “new monumentality” involved a celebratory demonstration of new materials and structures, employing architectural “effects” in the spirit of urban festivals and world fairs serving a certain level of theatrical display, the equivalent question of monumentality and the civic center in Israel conveyed a profoundly different message. Manifest in the culture complex in Tel Aviv and its reception in public opinion, the new civic monumentality was intrinsically bound to the question of *modesty* – another facet of the larger question pertaining to collective representation.

The first years of independence beginning in 1948 were marked by extreme existential predicaments. The scarcity of foreign currency instigated a limitation on import, and a strict

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122 Ibid.
rationing policy was implemented, affecting also the building industry. While the call to “reduce the standard of living” and the appeal to “make due with minimal import” were marked as a “political necessity”, the allocation of “extended human effort” was tolerable as long as it was directed for public purposes. The funding for the Mann Auditorium, however, was not solely dependent on public capital. Frederick R. Mann, a music patron from Philadelphia, contributed $250,000 and raised an additional $350,000 from other contributors. The Tel Aviv Municipality allocated 1,600,000 IL (from government loans). The Orchestra added 600,000 IL from its pension fund, and the Tel Aviv Municipality supplied the remaining funds (the project’s total coast was 5 million IL). The Auditorium was in fact owned by a public company – “Heichal Hatarbut” – the shares of which were equally distributed between the Tel Aviv Municipality and the Israel Philharmonic Orchestra. The latter was co-partnered with the government, the Jewish Agency for Israel (Sochnut) and the General Organization of Workers (Histadrut). The portion of out-of-country donations, provided by the America-Israel Culture Foundation had to be channeled through the government, which exchanged the foreign currency to local currency at an objectionable rate instigating vehement objections from the Tel Aviv Municipality.

Notwithstanding the government’s fiscal grip, from 1952 concessions were made to the planned economy, and government intervention was gradually reduced. Although fluctuations in the intensity of economic control were apparent, the prevailing ethos was still influenced by the ideological inculcation of the “culture of rationing” (tarbut hatzema) reinforced by Social-

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125 The Israeli Government stipulated that the funds raised by The America-Israel Culture Foundation (in foreign currency) be submitted through central government which would convert the sum to Lira – the local currency. A discord between the government, the America-Israel Foundation and the Tel Aviv Mayor’s office transpired through reciprocal exchanges. See for example letters documented in the Tel Aviv Archive between the Tel Aviv Mayor and Finance Minister, Levi Eshkol.
Zionism’s pervasive concept of frugality, which was as much a response to concrete conditions as their idealization. Under this value system the traditional sense of monumentality was an anathema, and a rejection of the historic monument’s subject of representation was accompanied by a dismissal of its formal methods. Not only were monuments no longer signifiers of despotic regimes, their means of representation had to reflect a reality of frugality and austerity. Flamboyance was an embarrassment and lavish monumentality an instance of such display. Although Tel Aviv was the preferred place of residence for the majority of the country’s bourgeoisie, and even though its more liberal economy was driven by private capital stimulating much of the city’s growth, the presence of Social-Zionist values was profound.

Commenting on the Mann Auditorium’s recent completion, Aba Elhanani, an architect and prolific architectural critic, maintained that “the public’s admiration for the building should encourage many Israeli architects who believe in new, daring and original architecture and who persistently reject a relapse to outdated modes of construction. This building is a testimony to the direction in which the Israeli architecture in the 20th century is going.” While pointing to the distinction between the concert hall and the glazed foyer in which it was situated: the first, clad in stone on the exterior and fine skilled millwork in the interior, the second, comprised of concrete columns coated in bush-hammered plaster and enclosed by planes of glass, Elhanani maintained that “this restrained use of simple and easily recognizable materials, and the abstention from any other effects, colors etc., infused the building with its splendor.” He opined that the building was “a reflection of one of architecture’s principles of economy of means and the honest expression of

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126 Frugality and austerity became values, embedded in Zionist-socialist theories, which encouraged individual self-denial for the sake of the collective good. I will further develop these themes in relation to architecture during the first decade of statehood in chapter 5. See also Oz, Almog, The Sabra, The Creation of the New Jew, (Berkeley: University of California Press, 2000).

the building “as is” with no camouflage or embellishment.”128 Elhanani’s approbation of the Mann Auditorium suggested a profound emphasis on the value system reflected in the building. The culture of frugality and “economy of means” responded to the immediate post-state years of objective adversity. It was also framed by Social-Zionist ideologies and paralleled by the discourse on “architectural honesty” emerging in the early 50s in Europe (particularly England). In years to come the notion of “making due with minimal means at-hand” was steadily aestheticized;129 nevertheless, it framed much of the architectural discourse in Israel’s first and second decades.

Like Elhanani, Ben Sira also characterized a new thematic intention in public institutions: “…on the one hand there is a reduced tendency to astonish and belittle the individual compared with the awe-inspiring structures of a ruling society. On the other hand, public buildings became larger because of their many purposes, in addition to the desire to endue them with the splendor befitting images reflecting the team-effort exerted in public construction.” 130 Hence the comparable “new monumentality” in Israel assumed its own meaning; it subscribed to a reserved monumentality and embodied a restrained expressive stance, one intentionally defiant of singularity and expressive individual gestures. According to Ben Sira’s account, it was also expected to reflect the ethos of a progressive and cooperative society. Although not stated by either of the two, this revised notion of monumentality also entailed the idea of engagement and acceptance of contingencies of place: the physical backdrop of the location as well as the moment’s economic constraints and particular social setting.

Unlike the Habima Theatre, which stood autonomously and defined the west border of the public square, the Mann Auditorium, later adjoined by the Helena Rubinstein Pavilion of Art,

128 Ibid.
a number of commercial uses, and Ya’akov Garden formed a continual sequence. Compositionally, the four separate functions were gleaned and contained within the infrastructural columnar structure. This trabeated configuration performed as a connecting device, linking the different functions contained within it and imparting a unifying image upon them without obliterating their distinctiveness. Within the Ya’akov Garden the structure resembled a concrete weaved brise-soleil, modulating light and glare, and avoiding disturbance to the three sycamore trees – a decisive constituent in the project’s development (Pl. 2.2 11,12,22).

Integrating the different buildings under a unifying structure was directly expressed in a press conference following the opening of Ya’akov Garden, in which Yaacov Rechter and the municipal head engineer, Moshe (Roytman) Amiaz, emphasized that the garden and its adjacent public buildings were conceived as “one architectural unit.”

Stretched along the entire urban block, it emphasized the cohesion, mass, and scale of the block rather than the singular buildings contained in it. In this respect, the assemblage of the different projects responded to Ben Sira’s formal requirements of the civic center as “a focus point with distinct urban characteristics” and offered a sense of the urban, which not only entailed density or scale but also an association between individual elements and a sense of awareness and connection between them. This pointed to another sense of urbanity in which civic

131 The architects’ chosen infrastructural approach indicated, in hindsight, an incipient megastructural inclination. Notably, this structure preceded this particular expression appearing a decade later. Although the complex had not been referred to as megastructural it marked the beginning of megastructural thinking that would later materialize in Karmi’s work, specifically after his son, Ram, joined the practice in the mid-50s. The employment of a large frame in which several urban functions were located, the evocation of a larger territory as a unit of reference (in this case the urban block) and the idea of forming a legible image, which would be readily identifiable amidst a uniform and disintegrated urban fabric, clearly shared notions attributed to the development of the megastructure. The similarity should, however, be carefully qualified; the technological élan of later megastructures (which never materialized in Israel) and the concept of facilitating a variable program whose functions may undergo rapid change bypassed the project in Tel Aviv. Notably also was the project’s sensitivity to a range of scales, which often eluded megastructural thinking. Although it referred to larger dimensions by encompassing an entire block, the project’s configuration never fell short of considering human scale.

132 “Yaacov Gardens will be Inaugurated Today in Tel Aviv,” Davar, (May 1964).

133 Published a number of years later, Lynch’s The Image of the City and Maki’s Investigations in Collective Form, were some of the works framing the discussion on consolidating urban entities, and establishing the means through which orientation and identification with the city’s monuments and landmarks can be achieved.
institutions were interlaced with their surroundings. While each institution’s distinct programmatic purpose was maintained, it was also interwoven with other activities. Mediating spaces facilitated this condition, providing the opportunity for functional interface. Urbanity and the civic public realm thus corresponded to plurality, enabled overlapping experiences and functions, and offered public space to a variety of potential users. This sense of urbanity was intimated in the foundation charter for Heichal Hatarbut, issued in April 1953 in the presence of members of parliament, members of Tel Aviv’s City Council and its Mayor, and delegates from the American Fund for Culture Institutions in Israel. “This glorifying edifice, rising in the city center will be dedicated to cultural goals: scientific conventions, concerts and other cultural and artistic performances. (If only) This palace would stimulate the integration of exiles that have concentrated in our city and its surroundings, an integration both spiritual and cultural.” The building, proclaimed Tel Aviv Mayor, Haim Levanon, in one of the project’s inauguration speeches, was a “Culture Palace – a public domain intended for the public’s enjoyment”. A recurring theme in other speeches was the commitment to make the “elegant structure” a public asset, a catalyst through which music would reach wide audiences, including all socio economic levels, and especially youth members. Eliezer Peri, head of the Israel Council for the Israel-America Culture Foundation affirmed that “The Palace must fulfill its goal: open the orchestra’s concert hall gates to the wide public, and turn our best music into a public asset.” The appeal to remove the boundaries between this edifice of “high culture” and the “public of all sorts” suggested that the presence of the building in public life would be attained through both its formal and programmatic juxtapositions and overlaps with its adjoining public space.

In the absence of a platform separating the building from the square in a typically Renaissance Albertian manner in which distinguished buildings were raised above the level of

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134 Foundation Charter for Tel Aviv’s Municipal Culture Palace. Tel Aviv Municipality Archive, section 4, ‘1/5/14. [Hebrew].
city to give them “a greater air of dignity”, the planners endowed the building with a quotidian nature. Although early design schemes included an elevated platform (Pl. 2.2 04,23,24), the executed plans omitted it, choosing to establish a common ground between the building and the square. The leveling of the square was contiguous with the site and street level, and an off-axis stair, flanking the side of the square mediated between the established public platform and the descending street (Pl. 2.2 25a). The use of the modular glass façade, further emphasized the contiguity between ordinary city life and the festivity of attending a musical performance (Pl. 2.2 08,09,19,20). The building’s foyer was, consequently, an extension of the public square and vice versa (Pl. 2.2 06,08,09,25a-d). Interior and exterior public gatherings were spectacles for mutual display, and crowds assembling in the ground foyer, before and after performances or during intermission, could trickle out onto the public square. The later connection with Ya’akov Garden introduced another opportunity for spatial and functional crossings. Here too, the public attending a concert could also convene on the upper foyer and drift onto the west-facing balcony – a negotiating space between the building and the internal garden. (Pl. 2.2 21) The garden would also accommodate local residents and pedestrians passing by, who could potentially amble up to its upper level intermingling with the crowds from the auditorium. On such occasions it would be virtually impossible to determine where one space ended and the other began.


137 This quality of interspersion also posed an operational conflict. The Orchestra’s management asked to provide a banister between the garden’s upper level and the second storey foyer “in order to avoid damage to the Hall”. See correspondences between Heichal Hatarbut management and Mayor Mordechai Namir, which took place in January 1964. Tel-Aviv Municipality Archive, section 4, т/10/1.
The public garden was not included in the municipality’s initial brief. The original program designated this space for the Tel Aviv Museum (plans dating from 1957 included an internal sculpture garden extending from the museum). Local resistance to the plans maintained that their execution would have entailed leveling the uneven terrain and uprooting the two hundred year old sycamore trees on site. The original plan was ousted; the construction of the museum was allocated to another cultural complex located east of Ibn Gabirol Boulevard, where the district court and municipal public library would be located. In its place, the city issued plans for a public garden. The garden’s area covered less than an acre (only 3.5 dunams) and in order to overcome this limitation two levels were introduced. Each level associated the garden with a different element in its proximity; the ground level was coplanar with the public square in front of the Mann Auditorium and with Tarsat Boulevard to the west. The second level was linked by a ramp to Chen Boulevard and Dizengoff Street and connected the already existing Mann Auditorium’s second storey foyer to a greenhouse through a concrete bridge suspended along the south border, also branched off to connect to the mounds on which the old trees were located.

In 1965 the Rechter-Zarhi-Peri partnership was awarded the Rokach Prize for Architecture for planning Ya’akov Garden. Beginning in 1954, the prize, named after Tel Aviv’s Mayor Israel Rokach, was awarded for “excellent contributions in the field of architecture, and landscape and urban planning.” The judging committee maintained that: “the garden’s main goal was to integrate public institutions – among the more significant urban architecture of the new Tel Aviv – with old natural assets (sycamore trees) – among the few remaining identifying marks of the young and romantic Tel Aviv. The space in-between was filled by a multi-leveled garden,

which conveyed, despite the lot’s small space, a feeling of relief [also “space” in Hebrew (הווה)] for those strolling in it. The architectural solution beautifully coincides with the trees’ levels, the adjacent buildings and streets and completes the space between them with a successful combination of plant, water and construction… The garden completed the most significant culture center in Tel Aviv, while successfully utilizing the different conditions present on site.”

Though not completely walled in by its neighboring institutions, the garden could be linked to the enclosed garden type, the genealogy of which predated its inclusion in an urban fabric. Only in the early Renaissance did the type acquire its standing as a spatial unit defined by the buildings surrounding it within the overall system of the town. Before that the type typically appeared in isolated configurations such as secluded monasteries and villas, where it was still a spatial unit within a larger spatial ensemble but not yet one associated with the practices performed at the scale of a town. The notion of the enclosed garden’s interrelatedness with versus its absolute seclusion from its surrounding natural or artifactual settings was also subject to significant typological transformations. In the Middle Ages, the type was strictly separated from its surrounding landscape, and afforded only a vertical link to the heavens. But because its principal role as a reference to an ideal place, a Garden of Eden, relied on the employment of concrete materials from its own physical surroundings, this strict separation was ultimately modified. The metaphysical was bound to become concrete.

139 Tel Aviv Municipality Archive, division 4, נ/10/1, 10.02.1963-20.09.1965, 4473.
140 The early Renaissance was marked by a shift in the conception of a town, from a haphazard collection of built masses to a rational geometric system that could be expressed formally. Planning and shaping the overall configuration of the town became analogous to the planning of the individual architectural object. Hence the different elements of the town corresponded to the different spatial components of the villa.
141 In the Middle Ages the distinction between Nature, construed as the wild and immeasurable, and culture, the cultivated and measurable, materialized through the representation of the former in the latter. The awe of nature engendered a typology uncompromising in its spatial separation. Fully unhitched from its surroundings, the enclosed garden as Hortus Conclusus was a microcosm referencing the macrocosm in which a process of reconciliation between man and his threatening and inspiring surroundings could take shape. Counterbalancing its enclosure with the open ceiling, the type accentuated the vertical link with the sky by the axis mundi, representing the linkage to the divine order emphasizing the sacred aspect of architectural space. The invisible, tangibly inaccessible but conceptually attainable, perfect dimensions of the deity’s shaped Cosmos were reflected in mathematical and geometric rigor, considered the basis and yardstick of all creation. Legitimating and structuring the enclosed garden in this specific role
In the Renaissance, the type would eventually qualify its strictly vertical alignment with the sky with horizontal connections to the surrounding world, drawing the once excluded horizon into the garden. This transfiguration, no doubt, also affected by the concrete changes of political stability, reflected a principal change in the medieval conception of space. From identifying space with a single object, a definitive and stabilized closed form, the concept of space became receptive to distance and to what lay beyond the object’s defined borders. Space ceased to be predicated on the object and became constituted on the relationship between objects placed upon an extensive ground, a continuum visibly reaching the horizon.142

The type endured these transfigurations over the course of such conceptual changes, but its key structural constituents were ultimately called into question with the late 19th and early 20th centuries advent of modernism. The immured space of the garden, intermittently opened to negotiate its enclosure with specific views, now forfeited its enclosure and correspondingly its status as an autonomous space. Modernism’s fascination with distance and the horizon, affected by material developments in the field of architecture, as improved techniques in the production and construction of plate glass as well as reinforced and pre-stressed concrete affording larger

as hortus contemplationis, and as a representation of the Garden of Eden on earth, was its symbolic function – a closed-off space referencing what exists beyond it. For the history of the hortus conclusus see: Rob Aben and Saskia de Wit, The Enclosed Garden, History and Development of the Hortus Conclusus and its Reintroduction into the Present-day Urban Landscape, (Rotterdam: 010 Publishers, 1999). Yet the Platonic insights exalting abstract concepts and idealities and appealing to pure contemplation extrapolated from earthly material imperfections were pursued precisely through the material dimension itself: “Making a material paradise on earth and cultivating sensual pleasure are a first step towards enjoying the earth itself as a paradise.”(Aben and de Wit, p. 71.) The unaltering denial of surrounding material settings was innately dialectical and, therefore, consequentially moderated.

142 Corresponding to these spatial concepts was the rediscovery of pictorial space, which had been lost since late antiquity, and its corollary in the advancement of architectural methods of representation, principally the development of the graphic technique of perspective in the early Renaissance. For the development of perspective see Christoph Luitpold Frommel, “Reflections on the Early Architectural Drawings,” in Henry A. Millen ed., The Renaissance, from Brunelleschi to Michelangelo, the Representation of Architecture, (1994; New York: Rizzoli, 1997), 101-121. Perspectival depictions of space integrated distance and the organization of geometrical objects on the ground surface onto the picture plane, structuring the ensemble in correspondence to a fixed viewing point. Notwithstanding the subordination of the objects to the viewer’s distinct location and point of view, this process rendered architecture increasingly pictorial, and space conquerable and controllable. Architecture became a subject for viewing and a setting from which viewing was encouraged. The landscape and orientation toward the horizon became the subject for exploration and aesthetic reflection, subsequently adjusting the structural rationale of the enclosed garden.
spans for cantilevers, and also by conceptual and cultural fascinations with the expansive, universal, accessible and, presumably, controllable landscape, rid the type of its essential significance and purpose. Relinquishing its principal programmatic and symbolic meaning, the enclosed garden dissolved into the landscape with which it became synonymous. Its clearly defined borders, like those of its urban counterparts – the piazza or square – succumbed to a border-less environment propounded in planning proposals as Le Corbusier’s *Ville Contemporaine* (1922) and later, *Ville Radieuse* (1924), in which the entire landscape became a boundless garden/park. The dissolution of the formal relationship between built mass and constructed void in which the two preformed jointly to comprise the matrix of the town rendered the extendable void – the landscape – an undifferentiated field. While this field may have addressed functional requirements it conceded spatial and formal ones.

In Tel Aviv, following the principles outlined by the Geddes Master Plan, the low-density city fabric dispersed amidst perforating gardens also influenced the breakdown of the relationship between open space and built form. The Garden City became a city-as-garden. Later appeals to a comprehensive regional plan in which the city’s expansion was restricted through a green belt of public parks and zoned agricultural land, focused, as Ben Sira’s writing underscored, on reintroducing the distinction between a densely built city fabric and the open country side in place of their mutual effacement. This stipulation was directed toward the differentiation between and preservation of town and country where the two conditions bordered one another; it was also related to Ben-Sira’s parallel endeavors concerning the question of urban consolidation. This latter issue entailed articulating the relationship between city and landscape or artifact and nature within the confines of the urban fabric itself, a theme also related to shaping public space.

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Whereas formal and spatial means did not sufficiently inform the planning of expansive public parks or agricultural territory, which were typically conceived along functional requirements as soil management, the pursuit of urban consolidation marked a self-reflexive shift in the conception of open space by reapplying spatial tools to its design methodologies.

Following the nadir of the enclosed garden’s evolution, an opportunity arose for its reintegration in the city. Typologically subject to scaling, the courtyard, as observed in chapter one, could structure the layout within the individual dwelling unit, the public building or a cluster of buildings. A committed paladin of this concept, Josep Lluís Sert, expounded the manipulability of this typological component in a proverbial text he co-authored with his partner, Paul Lester Wiener, Can Patios Make Cities? published in 1953. Committed to the idea of the public square as a conceptual and spatial sequel of the individual dwelling patio, evoked the concept of the “urban room” propounded in the late 19th century by the Viennese painter-architect Camillo Sitte. Criticizing the technologism of modern city-planners and their development of uniform, wide and axial avenues, Sitte emphasized the charm of medieval winding streets and oblique views but most importantly emphasized the significance of open public space, preferably irregular and interconnected. His book title The Art of Building Cities: City Building According to Its Artistic Fundamentals reflected his focus on spatial and visual qualities, the “artistic principles” rather than sanitary or traffic precepts for city planning.

Yet while the employment of formal tools was, as argued by the Rokach Prize committee, a salient generator in the design of Ya’akov Garden, it was also inveterately tied to the space’s use value. The garden accommodated local residents and visitors to the institutions on site

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offering them a space for varying activities: a space to convene in, to play in, a *locus amoenus* affording sensual enjoyment or a temporary respite from urban rhythms. It was fully engaged in the practices taking place around it throughout the day and night.\footnote{147} Further appeals called to maintain the operation and lighting of the public water fountain, “an integral part of the garden” in front of the Mann Auditorium, until midnight in order to “add beauty and splendor to the garden and the surrounding buildings in the evening hours…All attending the garden, residents as visitors, whether for their enjoyment or for passage, would surely appreciate this arrangement, specifically on the Sabbath and on holidays.”\footnote{148}

The garden, therefore, bore an intrinsic antinomy; on the one hand, there was the intention of *inclusion*, drawing the disparate subjects of the community together, integrating them into a space defined by its adjacent buildings for which it was both the actual and symbolic unifying element. This was reinforced by the garden’s partial permeability and its differentiated connections to the local neighborhood. On the other hand, the garden also served the purpose of *exclusion*, suspending one’s absorption in the routines of city life and counterweighing the vigor and variability of the city through marking and enclosing a territory – a closed-off system – within the city’s fabric. Ya’akov Garden was, in this sense, a synthesis of the enclosed garden as fully unhitched from its surroundings and the transformation of the type into a system partially compromising its complete introversion for the sake of engaging with the outside world.\footnote{149}

\footnote{147} In correspondences between Mayer Mordechai Namir and the head of the Development Division in the Tel Aviv Municipality, an emphasis on the garden’s different users and multi purposes transpired through the mundane question of lighting. The Mayer insisted on adding supplemental lighting within the garden and along the spaces where it interfaced with adjoining public spaces. Emphasis was given to the main entrance from Dizengoff Street and to the pedestrian route between the theatre and the garden. A request to maintain luminosity until midnight facilitated the space’s use for both the local residents and the crowds leaving the concert hall.

\footnote{148} Tel Aviv Municipality Archive, division 4, מ/10/1, 10.02.1963-20.09.1965, letter date: 09.11.1964, sheet no.28.

\footnote{149} In many ways this second objective would later reign supreme over the first. The garden’s recent 2013 restoration further compromised the sense of enclosure for the sake of a direct, co-planar and widened passageway between the main entrance at Dizengoff Street and the public square. The omission of the ramp and the ideal of facilitating connection overshadowed the space’s seclusion.
Since historically the type was not an immutable concept but one subject to adaptations, its interpretation in the culture complex in Tel Aviv can be seen as a version of its varying realizations, mainly resonating with the type’s adjustment to the social and spatial matrix of the city. Connections to what lay beyond its formal borders were no longer necessarily predicated on the association to natural surroundings. With growing and expanding urban territories, the immediacy characterizing the connection between the enclosed space of the garden and nature became mediated by built forms and from referencing its surrounding natural landscape, the type was then required to relate to urban artifacts (an early example would be the Cortile del Belvedere from the sixteenth century). As expressed by Yohanan Ratner in the complex’s analysis presented to the Tel Aviv Municipality, it was precisely this condition of linking two public spaces through the mediating device of the colonnade that offered a “beautiful architectural element”. The architects of the garden, offering their own understanding of this condition, utilized the site’s natural slope and employed the higher vantage point redirecting views toward the square (Pl. 2.3 29).

The Rokach Prize committee and the city’s head engineer regarded the two open spaces as “belonging to one another” although they had different spatial qualities. To state the obvious, the public square was much larger, bare and exposed, the garden more introvert and intimate. Although this may be suggestive of thematic design intent, the two were in fact a result of the physical conditions of the site. The public square was laid out on relatively leveled surface, the garden, by contrast, occupied the mound the crest of which was 4.5 meters higher than the ground plane of the square (Pl. 2.3 26). Pre-existing conditions generated the site’s development. Yet, although the garden integrated natural elements and the sloping terrain, superimposing different axes as well as winding pathways (Pl 2.3 27,28) typically considered an “organic” or “a-formal” design approach, and the square was arguably more regular or systematic, both were
unequivocally rational and decisively controlled urban artifacts. Likewise, when Ratner emphasized the auditorium’s off-axial position in respect to Rothschild Boulevard and, therefore, its “classical” placement, he made no attempt to deem this arrangement a-formal, though it may have been informal. Correspondingly, even though the garden was situated on uneven terrain, and offered oblique views both within it as well as toward the public square and adjoining streets, these were in no way evocative of a-formality. In point of fact, the garden offered a highly constructed series of perspective views. (Pl. 2.2 11,21; 2.3 29)

The circumferential cornice, which assembled the different buildings as well as the garden into a legible ensemble while allowing the level of the ground to undulate freely reflected the idea of accepting natural settings, bringing the buildings into conformity with them, but also constructing a steady common ground – a shared landscape – amidst the irregular and fluctuating. This is to say that while the complex revealed an unmistakable attunement to existing natural conditions, it did not fully acquiesce to them. It was an epitome of the wider landscape, condensing conditions within a wider territory.

The garden’s symbolic significance lay in its safeguarding a natural resource laden with collective content: “There was a growing public awareness”, wrote a critic seven years after the project was completed, “against the destruction of the natural landscape…we all remember that due to the efforts of several novelists and artists, the Tel Aviv Municipality withdrew its plans to uproot the old sycamore trees on the celebrated sand mound in Tel Aviv, in the shades of which romantic rendezvous took place.”150 The judges for the Rokach Prize expressed a similar impression identifying the trees as “old natural assets… among the few remaining identifying marks of the young and romantic Tel Aviv.” Exercising design opportunities within the conditions of the natural landscape demonstrated aesthetic, ethic and symbolic purposes in which

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nature became a constituting and legitimating source for urban planning. It also suggested that while the expression of the civic was predicated on formal methods of style and the accommodation of social and cultural practices, it was not confined to these considerations alone but was also grounded in particular topographical conditions, situating the modern universalized design in a narrative tied to the history of the location.

A decade after the garden was completed a large mural was incorporated onto the west-facing façade of the Mann Auditorium. The mural was mounted on four large planes on the east side of the garden and reflected what Sert, Leger and Giedion defined as “the next step” of the modern monument according to which it would transpire as a form of artistic collaboration: “the integration of the work of the planner, architect, painter, sculptor and landscapist demanding close collaboration between them.” Reintegrating art with architecture where architecture and other plastic arts contribute to a modern civic Gesamtkunstwerk offered a platform for creative collaboration across artistic fields and a more experiential involvement with the public domain. In Israel, Marcel Janco expressed the idea of the synthesis of the arts in his text The Plastic Arts and Architecture of Our Time, published in Handasa We’Adrikhalut, the Architects and Engineers Journal in 1954. Citing Alberti, and specifically his definition of “beauty” as “reasoned harmony of all the parts within a body, so that nothing may be added, taken away, or altered but for the worse”, and accordingly, understanding the “beautiful” as something “entirely complete and perfect in every respect” Janco, in a patent Albertian vein, formulated his conception of a beautiful artifact as predicated on an integrative rationale where each of the integrated parts maintained its individuality while its presence was essential for sustaining the whole. The

151 Jose Luis Sert, Fernand Leger, Sigfried Giedion, “Nine Points on Monumentality”.

152 Alberti, Book six, p. 156.
participation and symbiosis between art and architecture did not entail for Janco, a former Dadaist, the subordination of art to architecture or its transposition into an instrumental or commercial object. Dada, he explained, was primarily against the commercialization of art upholding artistic abstraction, which was precisely its contribution to architecture.

While maintaining the different mediums’ autonomy he tried, like his contemporaries in Europe and America, to reformulate a path toward artistic synthesis for architecture and the plastic arts in Israel:

*Is it possible that today we talk about compositional rules in architecture? Is this not a Latin dialectic we use to define a plastic creation? Do not the same rules apply for all the plastic arts? Do we not mean architecture too when we say ‘plastic art’? It is a worn-out effort to try and remind the architect of the fraternity (אחווה) among the arts. We all still feel this fraternity which has now disappeared. Many figures in antiquity were geniuses in architecture as well as in other arts. The different artists were many – painters, sculptors, who were also architects and planners of great temples and monuments in which they housed their plastic creations. From Eastern India to the Aztecs of America... from Rome to Byzantine... there is no example of an architectural plastic creation in which painting or sculptor were not integrated. From the Egyptian temples to the Gothic Cathedrals, there was a uniform effort to achieve a complete creation, which was frequently anonymous.*

According to Janco, frictions in the age-old cooperation between the different plastic arts had already begun to appear in the 17th century and were forcefully pronounced from the 19th century. While he recounted numerous possible reasons, the discovery of perspective, and specifically its employment as a means for visual deception was particularly influential. Nevertheless, collaboration among different plastic arts continued until the 19th century, in which drastic material changes – innovations and scientific developments industrialization and commercial illusions – drove a final rift between the arts, and “dragged them to despair and dismay.” Throughout history, Janco insisted, the collaboration and “spiritual support” among the

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arts yielded the “style of the age”, and in their absence architecture and other arts were doomed for degeneration. Amidst this adversity and perhaps because of it, he explained, Cubism and later De Stijl emerged as abstract geometric arts offering a “harmony which included painting, sculptor and architecture.” Janco recalled Le Corbusier’s Purist pursuit for a modern integration of the arts in the mid 1920s, as well as later efforts outside Europe, in South America, in which “modern architects cooperated with great artists of the time (Leger, Arp and Lipchitz)”.

The integration of the mural in the culture complex in Tel Aviv was a reiteration of the idea of combining artistic mediums in the public domain. In 1977 Ivan Schwebel completed the mural depicting Tel Aviv’s scenery in pale pastel colors. The possibility for a modern, civic monumentality was ultimately combined with a collaborative effort between planning professions and artistic fields. Integrating art in the public realm became more frequent in the following decade, as art installations became common practice in public squares, civic centers and university campuses.

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154 Marcel Janc, “The Plastic Arts and Architecture of Our Time,” Handasa We’Adrikhalut 12, (May-June 1954), 7. [Hebrew]. One of the projects Janc was most likely referring to, was the Ministry of Education (MES) in Rio de Janeiro, constructed during the years 1936–43. The project was a collaboration between architects Oscar Niemeyer, Lúcio Costa, Affonso Reidy (with Le Corbusier as project advisor), landscape architect Roberto Burle Marx, and painter Cândido Portinari. A composition including an eleven-storey projecting slab mounted on pilotis, perpendicular to a longitudinal two-storey mass, also on pilotis, defined a small park, landscaped by Burle Marx, extending both sides of the projecting slab. The park, with its inclusion of modern sculptors, was coplanar with adjacent streets. It was also contiguous with the shaded spaces under the building masses – mediating spaces between building, city and park – where mural mosaics (azulejos) by Portinari covered the walls on the ground level.
3. Between Dispersion and Consolidation

3.1 Land, Population and the Zionist Ethos. 1950s.

In 1959 in his address to the General 32nd Conference of the Association of Engineers and Architects in Israel, Mordechai Namir, Minister of Labor, outlined Israel’s two main goals during its first decade. The first, he concluded, was housing new immigrants, the second, settling land. These two objectives were indissolubly linked. Accommodating vast numbers of immigrants and occupying land formed the two major axes around which Israel’s process of spatial development took shape. As in other settler societies, land settlement played an instrumental and symbolic role in structuring a common national ethos (Pl. 3.1 01,02). In Israel, this practice can be traced back to the different facets of Zionism – the ideological context for the establishment of the state in 1948, which had developed as a Jewish liberation movement in the 19th century. Zionism gained further relevance and intensified activity as persecution and ethnic discrimination against Jews increased throughout Europe and Russia. Noticeably different from parallel national liberation movements was the lack of territory to which constructed national identities were typically tied.

The concept of building a nation state for Jews was initially concretized though Political Zionism. This form of Zionism emphasized a diplomatic track, seeking the international community’s legal support for a “state like other states” through setting up political organs. This strategy, however, did not exclude the establishment of administrative institutions one of which was directly responsible for land acquisition in Palestine - The Jewish National Fund (Keren

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155 Published in Handasa WeAdrikhalut, No.6, Vol. XVII, (June 19590, 140-141.
156 I am referring here to the notion of occupying land that had been legally transferred to the Israeli state. Land occupation in Israel has since also assumed a politically controversial meaning with the pursuit of land beyond the 1967 borders.
Kayemet LeYisrael, KKL/JNF) founded in 1901 at the fifth Zionist Congress in Basel. Another influential institution responsible for land purchasing, the organization of Jewish immigration to Palestine and land settlement, was the Jewish Agency for Israel (HaSochnut HaYehudit LeEretz Yisrael, JAI) established some years later in Jaffa, Palestine, as a branch of the World Zionist Organization.

Reservations about the politicization of the Jewish nation were voiced by members of Cultural Zionism through Ahad ha Am’s writings, followed by those of Martin Buber and Judah Magnes, supporting the idea of a “national home” as a cultural and spiritual center for Jews across the world. Although the intellectual pursuit of this strain of Zionism stressed its ethical and qualitative framework, recognizing the potential conflict with local Arabs thus advocating a bi-national state, it never questioned the significance of the Land of Israel and its primal meaning to Jewish culture and heritage. When the Uganda alternative was raised at the sixth Zionist Congress, Ahad ha Am voiced unremitting refusal to accept this location as a substitute to the Land of Israel.

Advocating an operative, practical approach for the pursuit of a national home for the Jews was Labor Zionism, becoming the dominant strain of Zionism in 1933 when it won 44 percent of the votes at the World Zionist Congress. Labor Zionism was also the hegemonic ideology in the Jewish settlement in Palestine, represented by the strongest political body after the consolidation of labor parties in 1930 into a catchall socialist labor political movement – Mapai (Mifleget Poalei Eretz Yisrael, lit. Workers' Party of the Land of Israel). This strain of Zionism informed seminal para-state institutions, was ingrained in the later structuring of the state and reflected the majority in the Israeli parliament until the late 1970s.\footnote{In 1977 The \textit{Likud} with its liberal economics and middle to right-wing politics overcame the Alignment (\textit{Ma’arach}). Similar shifts in ideology occurred in the US with the appointment of Ronald Raegan as president (1981-1989), and in the UK with Margaret Thatcher as Prime Minister (1979-1990).} Emanating from historic
labor movements of Russian Jewry, Labor Zionism synthesized nationalism and socialism and sought the active attainment of land in Palestine on which a workers’ society would be established, reconciling the emancipation of the nation with class struggle. Founding member Beer Borokhov conditioned the realization of the second by the achievement of the first and expanded Marxist concepts on the conditions of production by contending that such conditions were abnormal if workers lacked a self-governing territory. If Marx developed his theory on a basic concept of production, Borokhov predicated his on a concept of territorialization.\(^\text{158}\)

Consolidating and insuring territorial foundations was assumed through actual presence – land acquisition and dispersion of settlements, but also through establishing an economic structure for a self-sustaining society. Against the prevailing Jewish economic structure in the Diaspora, predominantly comprised of the middle class working mainly in retail, craft and liberal and intellectual professions, Labor Zionists sought the normalization of the economic structure in the Yishuv (Pre-state Jewish settlement in Palestine) as a precondition for obtaining independence.\(^\text{159}\) By supporting a balanced vocational structure in all economic branches including industry and, specifically, agriculture, Labor Zionism tried to reshape the inverted Jewish economic pyramid in the Diaspora and create a broad economic base. The future of the Zionist effort, it was contended, lay in the hands of the pioneers plowing land and constructing irrigation systems, not among the petit bourgeoisie crowding Tel Aviv, Jerusalem and Haifa.

The pragmatic and concrete sense of acquiring and developing land also had a symbolic dimension elaborated by Labor Zionist ideologues, notably by Hapoel Hatzair (lit. The Young Worker) spiritual leader, Aharon David Gordon, whose writings bore a spiritual, psychic élan, glorifying the virtue of physical land labor as cathartic and liberating to the soul. In praise of the

\(^\text{158}\) Alain Dieckhoff, *The Invention of a Nation, Zionist Thought and the Making of Modern Israel*, (New York: Columbia university Press, 2003), 64.

\(^\text{159}\) Ibid., 86.
intuitive, experiential, sensual labor of the pioneer and in diminishing the rational, Apollonian dimension of life, Gordon’s writings reveal a proximity to German and Russian Romantic movements. His deification of nature and working within nature gave his work a Tolstoyan dimension of religiosity, under which land and territory were afforded a spiritual and sacred meaning (this theme will be further elaborated on in chapter 6). By reading the land of Palestine as the “native country”, the natural environment of which marked the collective identity of the nation – even though this nation had been dispersed throughout the Diaspora for over two millennia – Gordon established an “organic”, “natural” and indissoluble tie between (the) land and the Jewish nation.160 “Land redemption”, “land frees” and the “return to the land” were among the figurative concepts central to Labor Zionist ideology from the end of the 19th century. Members dominating pre-state institutions, and later defining state spatial policies repeatedly employed them.161

The concept of settling land was a *sine qua non* for rebuilding the Jewish nation. For Zionism, construction of a Jewish national state as a political body necessitated a territorial foundation. For Labor Zionism, the dispersion of settlements was a strategy for both constructing a workers’ society with a stable economic base and a means for consolidating Jewish territorial

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160 Although his writings reveal disturbing similarities to organic nationalistic writings, they never developed into a politics of state, but remained in the realm of spiritual redemption (Dieckhoff 2003). His appeal, however, to a cohesive, collective, national Jewish society practicing spiritual asceticism through land regeneration in Palestine, entailed political structuring. Labor Zionists in the interwar period would transform these ideals into concrete political practices.

161 A Labor Zionist credo shaped education in the *Yishuv*, endorsing “knowledge of the land” by introducing intensive geography and natural history teachings into the school curricula, a pedagogical means for establishing a practical and emotive bond to the landscape. As early as the 1920s, elementary school geography courses were titled “knowledge of the homeland”, later abbreviated to “homeland”. These studies included natural history, agriculture, Jewish history and Hebrew literature, effectively constructing a comprehensive ideology in support of the settler enterprise. Student field trips and active participation in farm work, intended for city dwellers as well, expressed the extolment of land labor and the concept of “wasteland blossom”. Contributing to the land paean were also national Hebrew literature and poetry, romantically describing the landscape in historical-ideological perspectives. For more on the immersion of the concept of land labor and land redemption in pre and post independence pedagogy see Yael Zrubavel, *Recovered Roots, Collective Memory and the Making of Israeli National Tradition*, (Chicago: The University of Chicago Press, 1995). And Oz Almog, *The Sabra, The Creation of the New Jew*, (Berkley: University of California Press, 2000).
hegemony.\textsuperscript{162} Even in 1948 the consolidation of Israel’s territorial base remained unresolved,\textsuperscript{163} and the settlement of peripheral regions became a national objective propagated by state rhetoric and national institutions. Legitimized formally as predicated on security measures, these ongoing territorial objectives were concurrently tied to socio-economic programs at a moment of rising social fluctuations in Israeli society.\textsuperscript{164}

The “ingathering of the exiles” policy, advocated by Labor-Zionist Prime Minister, David Ben-Gurion, and officially stated in Israel’s Scroll of Independence, produced a heterogeneous socio-cultural condition marked by sub-ethnic diversities, which encouraged a state rhetoric of a long time Zionist melting pot ideal. But although the government and settling institutions voiced integrative purposes, they concomitantly invested in land legislation and spatial planning and development that proved antithetical to it. Contrary to Labor Zionist avowed obligation to land settlement, most of the population was still concentrated in the large cities and in unevenly condensed areas (Pl. 3.1 03-05) Despite Ben-Gurion’s incessant attempts to attract the old \textit{Yishuv} population to peripheral settlements, the majority of them remained concentrated in the big cities. After 1948, government as well as para-state institutional campaigns tried to unite the Israeli population and enlist them for the “settlement of the periphery” but, these attempts proved largely

\textsuperscript{162} This declared political objective was resolutely affirmed in the late 30s when even more moderate Labor Zionist leaders in the \textit{Yishuv} campaigned for a more forceful engagement in Zionist efforts, due to escalating anti-Semitism in Europe. At the expense of colliding with British Mandate jurisdiction, efforts were made to enhance immigration, both legal and illegal, and increase the number of Jewish settlements in what was termed by Ben-Gurion “fighting Zionism”. See Michael Bar-Zohar, \textit{Ben Gurion}, (New York: Adams Books, 1977).

\textsuperscript{163} After the 1947 U.N. Resolution Plan 181, followed by the Israeli Declaration of Independence in 1948, the consolidation of Israel’s territorial base remained unsettled. With the Arab nations’ refusal to acknowledge the State of Israel’s existence, the 1948 Arab-Israeli War broke out, the consequences of which were vast shifts in the (unimplemented) original U.N. division plan, and the creation of over 700,000 Palestinian refugees who fled from their homes. Settling land through population dispersal became instrumental in maintaining Israeli sovereignty, specifically in and around abandoned Palestinian villages and territories where Israeli authority was contested. See Baruch Kimmerling, \textit{Zionism and Territory, The Socio-Territorial Dimensions of Zionist Politics}, (Berkeley: University of California, Institute of International Studies, 1983).

\textsuperscript{164} Israel’s Jewish population in the 50s was comprised of immigrants from over thirty countries sharing little in common other than their ethnicity, in itself subject to different traditions and practices. From the Declaration of Independence in 1948, over a period of three years, the first “Mass Immigration” waves doubled Israeli population. From a population of 650,000 Jews, 80 percent of which were Ashkenazi - a sub-ethnic designation for Jews of European origin - the Jewish population in Israel reached approximately 1,300,000. 55 percent of the new immigrants came from Asia and North Africa, and were of Mizrahi descent - a sub-ethnic designation for Jews whose ethnogenesis traced back to Islamic countries.
unproductive, and state officials were forced to realize that this population would play a marginal role in the accomplishment of this national objective.\(^{165}\)

Efforts were redirected toward more compliant sources – new immigrants mostly of Mizrahi descent (a sub-ethnic designation for Jews whose ethnogenesis traced back to Islamic countries) with no political strength or leverage over hegemonic Labor Zionist policies, who were destined to implement the state’s territorial ambitions and its economic directives.\(^{166}\) The assimilation into a new civic society proved to be vertically structured – members of the old Jewish settlement in Palestine of predominantly Ashkenazi background (a sub-ethnic designation for Jews of European origin), who formed the ruling elite of Labor Zionism, promoted their ideological interests through spatial, economic, and cultural practices reinforcing social stratification.\(^{167}\)

The process of territorialization was, therefore, both externally and internally oriented. It sought to establish Israeli sovereignty equivalent to and in distinction of neighboring Arab countries and to manage movement of Arab population within Israel itself through the “Jewdiation of the territory”. At the same time, it was also marked by a drive to maintain internal ethnic hierarchy within the Jewish population itself.\(^{168}\) Peripheral development through internal population dispersal afforded the realization of both objectives and was institutionalized in 1950, when Israel published its first master plan. This document embodied both territorial and


\(^{166}\) As a consequence, determination to form a uniform modern society unburdened by traditional differences effectively materialized into an “ethnocracy”, in which state assets, as land and land management, were appropriated by a dominant ethnic group and the institutions constituting its hegemony. See Oren Yiftachel and Alexander Kedar, “On Strength and Land: On Israeli Real Estate Law,” in Yehouda Shenhav ed., *Space Land, Home*, (Van Leer Institute, Jerusalem: Hakibbutz Hameuchad Publishing House, 2003), 18-51. [Hebrew].

\(^{167}\) The Mizrahi Jews (lit. Jews of the East) were considered “backward” and “primitive”, only slightly more advanced than the threatening Arab to whom they were ethnically linked. The Ashkenazi Jews, descendants of European origin, considered themselves culturally superior and ironically transferred an anti-Semitic, Orientalist tone, to which they were subjected in their countries of origin, onto their fellow Israelis.

demographic reconstructive initiatives, consolidating the new state’s sovereignty and constituting it through spatial dispersion and population management. Implementing the “population dispersal” policy, first initiated in 1949, but circulating through different branches of pre-state managerial institutions since the 1930s, revealed the plan’s far-reaching strategy of administering and controlling the entire state-territory along with maintaining population stratification, means of production, distribution and consumption.

The Sharon Master Plan, named after its progenitor Arieh Sharon,169 first head of the Government Planning Department, at the time directly subordinate to the Prime Minister’s Office, reflected Labor Zionism’s all encompassing approach of settling land (including along frontier regions) through intensification of agriculture and redistribution of population and industry. (Pl. 3.1 06,07) This policy was a continuation of pre-state planning initiatives specifically informing the Settlement Reform Circle in which members of the Jewish Agency’s planning department congregated to discuss and promote a national plan that would disperse population, restrict the expansion of existing urban concentrations, abolish the tendency to create parasitic suburbs, and preserve the natural and historic landscape.170

According to the analysis of the master plan, with the establishment of the state in 1948, 82 percent of the population was concentrated in the narrow coastal strip between Tel Aviv and Haifa, 11 percent resided in Jerusalem and 7 percent resided in the Galilee and the South. The plan sought to curtail unrestricted urban expansion and increase rural settlements. Following the study of existing demographic data, the future objective was to control population in the three

169 Sharon was a leading member of the Israeli circle of modern architects (the Chug) formed in the 1930s in Tel Aviv. He was born in Poland and immigrated to Israel in 1920. He was one of the founding members of Kibbutz Gan Shmuel, and was sent by the kibbutz to study at the Bauhaus subsequently working for its second head, Hannes Meyer. Between 1928-1930 Sharon supervised the construction of the central college of the German Trade Union Federation in Bernau, which was planned by Meyer and his partner Hans Wittwer.
large cities so that only 17 percent would reside in Tel Aviv, 9.8 percent in Haifa, and 8.3 percent in Jerusalem. The agricultural population was set at 22.6 percent of the intended total population of 2,650,000. It was structured to provide 70 percent of the national food supply. According to Israeli architectural historian, Zvi Efrat, if modernism in Europe was typically tied to the process of industrialization, in Israel modernism was coupled with a reverse procedure of agriculturization.

Of course planning initiatives in Europe and America also sought ways to restructure rural communities in their efforts to ameliorate the congestion and destitution of the industrial city and improve the housing conditions of the working classes. More precisely, their efforts were focused on redefining the interrelationship between city and country. The situation in Israel during the first decade of independence was similar. Its uniqueness lay in the fact that it operated within a cultural, political and economic construct aiming to create new and intensify existing agricultural settlements. In other words, alleviating urban overcrowding in Israel was tied to a complimentary and ideologically laden spatial policy of ruralizing territory. Yet, what may at first seem, as a strict polarity between the urban and the rural was, in fact, their mutual coordination. The Government Planning Department developed an extensive plan in which city and country were perceived as co-dependent. This is to say that the master plan was a means to treat urban and rural patterns as a single concern. “…Settling the new territories along the desired measures could not be attained through agricultural settlement alone. It was necessary to accompany it with the creation of new urban centers” wrote Eliezer (Leonid) Brutzkus in The Location and Size of

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New Cities. Like Sharon, Brutzkus was employed in the Government Planning Department and took part in formulating the government’s decentralization plans.

The assumption was that there was relative freedom in locating the new urban centers, since most of the country’s industry would be of a ‘neutral’ kind, which is not necessarily tied to the location of raw-materials or the proximity of a port... The basic impression was that the Jewish settlement in Palestine at the end of the Mandate – a structure based on a direct functional connection between the rural unit, the kibbutz [collective community] or the moshav [cooperative settlement] and the big city – was not the preferred structure for a crowded and developed country. Hence it was suggested to introduce intermediate links...the hierarchical structure of the various centers...was predicated on a closer economic and social collaboration between the [new] urban center and its rural surroundings than that practices in the Jewish Yishuv during the Mandate period.

The entire state territory was subdivided into 24 sectors. Each sector was intended to sustain its “economic and administrative independence”. Each was assigned its own “mid-sized” “central city”, which would provide for the region’s industrial, commercial, cultural and social life. Aside from the large cities, Tel Aviv, Jerusalem and Haifa, the plan intended each sector city to include 40-60 thousand inhabitants. The entire sector was planned for a population of 75-100 thousand inhabitants. It was comprised of rural units, each with 100 households, central rural communities shared by 3-5 rural units amounting to 400-500 households, and urban-rural centers accommodating 30 rural settlements of approximately 15,000 inhabitants. In the time period circa 1948 until 1956 the majority of the Israeli new towns was created.

The establishment of mid-sized cities performing as centers for surrounding agricultural settlements, the redistribution of industry and relocation of population – acts of formal, economic and demographic decentralization – had already been propounded decades earlier in other parts of

173 Brutzkus, an engineer and urban planner, was born in Saint Petersburg, studied civic and agricultural engineering in Munich and Berlin and moved to Palestine in 1933.
174 Eliezer (Leonid) Brutzkus “The Location and Size of New Cities,” Handasa WeAdrikhalut 19, No. 5-6, (May-June 1961), 160. [Hebrew]
the world grappling with the detrimental conditions in overpopulated cities, consequential suburbanization and the creation of dormitory towns. The latter were parasitic structures in which the dependence on the large cities for employment, social services, and cultural institutions was profound.\footnote{175} In the late 19\textsuperscript{th} century, the close correlation proposed between social reform and new patterns for urban configuration germinated with such reformers as the British autodidact, Ebenezer Howard, who formulated these ideas through the concept of the Garden City. Though his programs have been interpreted as denying the distinction between city and country, merging them into a formless mass, and have, paradoxically, exacerbated the process of suburbanization, Howard’s intentions were in fact the opposite. “The Garden City as conceived by Howard is not a loose indefinite sprawl of individual houses with immense open spaces over the whole landscape: It is rather a compact, rigorously confined urban grouping.”\footnote{176} The inclusion of the green belt girdling the town was meant to limit its indefinite spread and secure a certain number of residents. The idea of relocating industry through establishing new manufacturing centers in the new Garden Cities was intended to provide employment for local residents and enabling a self-sustaining community, measures geared toward avoiding the creation of suburbs and dormitory towns. In other words, Howard tried to tackle the predicaments of both city and country. The Garden City was to improve conditions in existing city slums. Affording alternative hygienic living conditions, and abolishing the waste of long-distance transport of goods and population commute would lower land value within the big city and facilitate its reconstruction. But along with targeting the destitute urban population, Howard was also well aware of the social and

\footnote{175} Suburbanization, it should be emphasized, was no novelty. As Joseph Rykwert has maintained, suburbs and dormitory communities have been in existence since cities had boundaries. Although in many cases the suburb evoked a pejorative meaning, it also appeared in the form of affluent communities allowing daily retreats from the crowded and polluted city. With the advancement of railway transportation, distance from the city and its centers of employment grew and vast numbers of repetitive working-class houses lacking social and cultural facilities flooded seemingly limitless land reserves around cities. See Joseph Rykwert, \textit{The Seduction of Place, The History and Future of the City}, (2000; New York: Vintage Books, 2002), 161-162.

\footnote{176} This was noted by Lewis Mumford in his introductory essay written in 1945 to Howard’s book originally published in 1898. See Lewis Mumford’s introductory essay “The Garden City Idea and Modern Planning” (1945), in Ebenezer Howard, \textit{Garden Cities of To-Morrow}, (1898; Cambridge, Massachusetts: MIT Press, 1970), 34.
cultural impoverishment of rural communities intensified by the disproportionate growth of existing cities. The Garden City was, therefore, also a means to counter the social and cultural impoverishment of the countryside.

Implementation of Garden City concepts in England was limited during Howard’s lifetime, yet the Town and Country Planning Association he established in 1899 for promoting Garden Cities nationwide had a worldwide effect, largely upheld by social-minded planners Sir Patrick Geddes and F.J. Osborn, as well as Raymond Unwin and Barry Parker who designed the first Garden City of Letchworth. Correlations in the U.S. could be found with the establishment of the Regional Planning Association of America (RPAA) in 1923 in which Clarence Perry, Clarence Stein, Henry Wright, Benton MacKaye, Alexander Bing and Lewis Mumford took part, and through which the Garden City experiments of Sunnyside Gardens in New York (established in 1926) and Radburn Village in New Jersey (established in 1928) were realized. Other equivalent U.S. Garden Cities were established some years later, in the New Deal Era. These were the “green belt towns” intended to house relocated urban and rural families affected by the Great Depression. They were the outcome of Franklin D. Roosavelt’s Resettlement Administration.

In England during the inter-war period, the Garden City Association advocated for public town planning, the restriction of new industries in London and relocation of several existing industries to Garden Cities. One of Howard’s basic tenets was collective land ownership, insuring that the accumulation rise in land value would remain a public asset. On this point he was influenced by Henry George’s economic treatise *Progress and Poverty* (1879), which

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177 Two Garden Cities were established in the first two decades of the 20th century in England: Letchworth in 1903 and Welwyn in 1919.
179 From 1909 named Garden Cities and Town Planning Association and from 1941 renamed to Town and Country Planning Association.
advocated the public ownership of natural resources including Land.\textsuperscript{180} The Garden City Association also campaigned for a comprehensive planning strategy “potentially controlling the national pattern of urban and rural lay-out.”\textsuperscript{181} National recognition of the principles informing Howard’s work would finally ensue in the appointment of the Barlow Royal Commission\textsuperscript{182} followed by a report published in 1940, which brought the crisis of overpopulated cities and the proposed remedy of decentralization to wide national consideration. Toward the end of the war, the Barlow Report’s prodigious affect on public awareness gained further pertinence with the question of rebuilding London’s bombarded neighborhoods at a new and controlled density. The Country of London Plan of 1943 followed by the Greater London Plan of 1944, both drawn by Sir Patrick Abercrombie, a Howard devotee, were by the time of their publication a culmination of the ideas of decentralization through population and employment relocation, which had been occupying planners in England for the past half century. The eventual administrative outcome was the establishment of the government sponsored New Towns Committee. Following the committee’s research, the legislative outcome soon ensued in the New Town Act 1946, the outcome of which was the development of almost thirty New Towns throughout England.

The Sharon Master Plan was a reiteration of these developments, and indeed Abercrombie had met with Sharon and Israeli Prime Minister Ben-Gurion in the late 1940s.\textsuperscript{183}

\textsuperscript{180} This point was made by Joseph Rykwert in \textit{The Seduction of Place, The History and Future of the City}. The concept of public land ownership would easily correspond to Labor Zionist policy. The majority of land in Israel was either government owned, or owned by para-state institutions and then leased to cooperative organizations or individuals. Israel Land Authority (Minhal Mekarkey Yisrael), established in 1960, effectively took over the management of government owned lands, the lands belonging to the Development Authority, which was appropriated through the Absentee Property Law (1950), and land owned by the Jewish National Fund (JNF/KKL-Keren Kayemet Le’Yisarel). The Minhal publicly owned over ninety percent of land in Israel. See Baruch Kimmerling, \textit{Zionism and Territory, The Socio-Territorial Dimensions of Zionist Politics}, Berkley: University of California, Institute of International Studies, 1983.


\textsuperscript{182} Chaired by Sir Anderson Barlow upon the appointment of Prime Minister Neville Chamberlain.

Similar objectives informed both cases and certainly overseeing the construction and development of the mid-sized new towns by central government had characterized both administrations. Public (government) land ownership in Israel was also a facilitating factor. When the State of Israel was established in 1948, Israeli Jews owned 8.6 percent of the land, and Israeli Arabs owned 3.3 percent. 16.9 percent of the land was abandoned by Palestinian refugees and under the Emergency Regulations Law, and specifically the Absentees Property Law enacted after 1948, was confiscated and later transferred to the government development authority. The remaining land, over 70 percent, was vested through the Mandate and Resolution Plan to the State of Israel. Assigned a number of similar objectives, the programs also shared mutual weaknesses. The British New Towns, an interpretation of the Garden City idea, appealed to an intensified practice of functional zoning. They also employed the idea of the “Neighborhood Unit” which had been developed by American sociologist Clarence Perry in the early 1920s and had also informed the experiments of the RPAA. The Neighborhood Unit, zoned primarily for dwelling, included select public facilities to accommodate the residents of that particular neighborhood such as schools, a post office and a number of commercial uses. It was intended to invoke and encourage the ideal of community identity, an objective believed to be achievable through safeguarding the community from vehicular routes and ascribing the majority of its internal routes to pedestrians. Stipulating maximum distances from the farthest dwelling unit to the neighborhood’s public facilities was also meant to facilitate pedestrian movement. Restating this requirement, Sharon similarly separated pedestrian and vehicular routes within the neighborhood units in the Israeli mid-sized new towns. Termed in Hebrew Yechidot Shchenut,

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184 Today, approximately 80 percent of land in Israel is government owned. 13 percent is owned by the JNF. Private Jewish and Arab owners own the remaining amount.

185 In Howard’s schematic Garden City the distance between the farthest removed inhabitants and the Crystal Palace – the Garden City’s commercial glass arcade opening to the park – was not to exceed 600 yards (approximately 550 meters). In the plans for the New Town of Stevenage, the distance within the Neighborhood Units from the farthest dwelling to the social facilities in that unit were limited to half a mile (approximately 800 meters). Sharon prescribed the distance in the Israeli model at 750 meters.
these units also comprised the majority of the town’s layout. “The aim”, he explained, “is to avoid dangerous traffic at the margins of the neighborhood units and facilitate pedestrian access to the essential facilities accommodating each unit’s residents in distances which will not exceed 750 meters. The plan insures safe routes for children: walkways for kindergarten children, and routes distanced from vehicular movement for children at school.”

But the ideal of instituting a close-knit community by internalizing it and demarcating it as a separate, enclosed entity, with little interchange and interface with any surrounding urban fabric also entailed exclusion and isolation (outsiders were kept out, insiders were kept in). Since its public facilities were planned to accommodate the residents of that particular neighborhood alone, permeability between the neighborhoods was scarcely encouraged. Also noticeable in the Sharon Master Plan was the intended mid-size city’s expansion, not through intensification of the existing built fabric which predated the plan (when such a condition was present as in the cases of Beersheba or Lod for example,) but through an additive approach, annexing adjoining territories, while maintaining “green, public open spaces” as circumscribing zones between them. All functional zones were delineated by this amorphous “green space”. Water-color images of typical neighborhood units, appended to some of the city maps and tabulation, revealed the employment of standardized housing units undulating loosely around pavilions – designated public buildings – which were to accommodate the neighborhood unit. The buildings were submerged in ubiquitous greenery, unaltered by the actual location of the site or its specific climatic circumstances (Pl. 3.1 08). The separately zoned area for the town’s civic

187 Similar problems characterized the British New Towns and, certainly, the green belt towns in the U.S. The latter were criticized for their impervious physical and social structure, to the extent of endorsing racial segregation.
188 See for example the case in Beersheba in which the proposed new neighborhood units and master plan completely overlooked the existing Arab grid neighborhood. Sharon Rotbard explains this point in Avraham Yasky, Concrete Architecture. See also the post independence planning of Lod in Haim Yacobi, “Architecture, Orientalism, and Identity: The Politics of the Israeli-Built Environment,” Territory and Space in Israeli Society and Politics Indiana University Press, Israel Studies, Vol. 13, No. 1, (Spring 2008), 94-118.
center, typically detached from the rest of the town by the much-coveted green space, denied the creation of a mixed-use urban fabric in which a variety of functions are integrated to accommodate a heterogeneous public. Public space was a separate functional criterion devoid of any formal relationship with the dwelling units. This strict zoning policy, the low-density schemes and their repetitive housing blocks instigated wide criticism later in the decade. The neighborhoods produced in the early first years of independence were denounced for their uncritical reliance on standardization, and, consequently, their creation of tedious and monotonous living environments.\textsuperscript{189}

Some of the maladies appearing in the Israeli new towns had earlier counterparts in England. Although supportive of use zoning and the idea of the neighborhood unit, Frederick Gibberd, planner of the British New Town, Harlow, retrospectively reflected on the extent of the distances produced by functional separation:

\begin{quote}
The plan is a nucleated one. It defines distinct areas for home, work and play; it sketches out a social structure in the form of neighborhoods, schools and shopping centers; it lays down a pattern of open space and landscape connected to an agricultural belt; and it defines a system of road circulation, free of building. Industry is planned adjacent to the railway and always within easy reach of the regional roads; housing is arranged in distinct neighborhoods with their own shopping and social services, and the town centre with its business, entertainment and civic groups is placed as a focus of the design... ‘Use zoning’ is necessary to prevent the evils of the unplanned town, but it can lead to dullness through uniformity of building type if too rigidly applied. The neighborhoods of new towns are not as dreary as L.C.C, and other vast estates but there might, for instance, have been more intimate relationship between buildings like schools and houses. Shopping centers might have been in closer contact with housing and there might have been more link with industry.\textsuperscript{190}
\end{quote}


The recognized correlation between use zoning and dullness, and the belief that in order to avoid dullness a variety of housing types (and consequently a variety in the population) should be employed lead to Gibberd’s last and probably most cogent observation, pointing to the breakdown of the relationships between buildings, and to the disintegration of the urban fabric as a result.

The environments materializing in Israel’s first decade, post-independence revealed similar problems. The Planning Department’s zoning policy was interlaced with treating the “housing problem” as a primal “national objective”. This engendered laborious studies of housing types, along with their production and construction techniques, centering mostly on the optimization of the individual living unit. In the 40s Alexander Klein from the Technion had already produced fastidious analyses for optimal dwelling types in which the daily routines of family life were scrutinized to the extent of maximum efficiency.191 Resonating with the functional terminology of Existenzminimum (subsistence dwelling) these pursuits informed the planning and production of thousands of housing units spread across vast stretches of land (Pl. 3.109,10). The focus on minimal living requirements for the individual unit tended to overlook its social context. The corollary was the reduction of the individual or family unit to a supposedly self-contained component, disengaged from a wider formal and social matrix.

Concentration on dwelling units reflected the need to accommodate the new immigrants’ “basic living requirements” and was perceived as a rudimentary provision of strictly material needs, the basic conditions for the preservation of life.192 The first years following Israel’s

192 As indispensible as the planning professions were for producing a viable social and cultural context for the new towns’ residents, many of the new towns failed to provide employment for their residents, and their planned industrial facilities were often subject to operational delays. In many cases the provision of dwelling preceded that of employment opportunities. Failing to accommodate employment and suffering from a lack in civic and cultural facilities, many of the new towns had undergone demographic depreciation as their residents sought employment and residence in proximity to existing large cities. See David Zaslavsky, Building, Planning, Development, 1949-1952, (Tel
Independence in 1948 were marked by extreme material conditions. Israel was recovering from the First Arab-Israeli War and faced unprecedented immigration waves. The country’s population doubled in less than three years, adding a total of 700,000 to its demographic count. Thousands of immigrants were housed in transit camps, and the necessity to provide a more permanent solution was pressing. (Pl. 3.1 11) A lack of foreign currency and a refusal of foreign banks to extend its credit prompted the government to implement an austerity plan. The idea of Existenzminimum reflected an extremely difficult material reality. It also reflected the Housing Department’s search for a “typical” unit as a means to normalize the great demographic variety by introducing a common standard to immigrants whose countries of origin and, hence, cultural background was extremely diverse.193 The Israeli built landscape at that moment revealed a noticeably reductive focus on housing units, appealing to the efficient quantitative means for their production and construction. Little concern was directed toward the units’ interrelatedness or their association to what lay beyond the strictly private domain. The concept of a “comprehensive dwelling environment,” as Avia Hashimshoni explained, and the emphasis on public life would emerge later in the decade.194


193 Even in 1957 in the report submitted to the Ministry of Labor and the B. Rothschild Foundation for Research and Planning of Low Cost Housing, the conclusions included the following remark: “the unit must suit the family size. It is not necessary to consider the new immigrants’ ethnic origin for as far as the immigrants’ and absorbing society is concerned the goal is to consolidate a uniform Israeli way of life. See the excerpt of the report published in Handasa WeAdrikhalut, No. 7-8, Vol XVII, (July-August 1959), 186. [Hebrew].

194 Avia Hashimshoni, “Architecture,” in Benjamin Tamuz, and Max Wykes-Joyce eds., Art in Israel. Hashimshoni mentioned two post state periods. He saw the first, between 1948 and 1955 as largely preoccupied with housing. In the second, between 1955 and 1963 (the year his text was published) he observed a shift towards “comprehensive planning” in which “all the components of a city – public buildings, housing traffic regulation and proper blending of working and residential areas” constituted the focus of design professionals.
3.2 Human Habitat Reconsidered. 1950s. 1960s.

Incipient calls for reevaluating state housing policies began to gain momentum in the mid-1950s. In the 1954 12th issue of Handasa WeAdrikhalut titled “State Public Housing,” an article by Yaakov Ben Sira reflected this reassessment. At the time, Ben Sira was the president of the Engineers and Architects Association and chaired its Building and Technique Research Institute. His 21-year long commission as Tel Aviv’s head engineer ended in 1950, and he consistently contributed to Israel’s architectural and urban design discourse. Ben Sira argued that in addition to the focus on the private domain by improving the quality of the individual living unit and the skill and materials involved in its construction, planners needed to concentrate on grouped configurations of units and their association to shared public spaces. Organizing units into comprehensible formal and functional ensembles was necessary in order to enhance the inhabitants’ sense of social cohesion and increase opportunities for collective activities. Ben Sira also emphasized the need to “intelligently locate a sufficient amount of public facilities accommodating social and cultural requirements within each grouping.” These facilities, he maintained, had a material-functional purpose as well as a formal-representational one. They would accommodate social and cultural needs and also perform as main identifying marks. At this moment the persistent telos of the State Planning Department was decentralization and the built environments had mostly diluted spatial qualities. The focus of state housing was the provision of immediate material necessities and it mostly concentrated on efficiently produced mass housing projects. In this context, the reemergence of architecture’s formal and representational value and its creation of meaningful public landmarks indicated the beginning of a paradigmatic reorientation. Ben Sira’s text pointed to the fact that public space in its diverging scales and purposes became a key factor in defining and reintegrating dwelling environments. Furthermore,
he maintained that the uniqueness and character of each unit cluster would not be guaranteed through exogenous demarcations.

No girdling green belts, roads or fences define it, but the intensity of the [public] internal organs, the range of their influence, and the radius of their inward drawing potential... A housing project will be recognized as such according to its internal public organs, and it is therefore necessary that they be surrounded by open space distinguishing them from the dwelling units. This differentiation must not acquire superficial measures having no economic or aesthetic justification. The embellishment of the public buildings through squares and open spaces can facilitate their distinction... it is crucial that they allow the inhabitants unmediated access, a simple connection and provide a compelling image.195

A renewed emphasis on associating dwelling units to one another and their formal and functional connection to public facilities and open spaces was expressed in the same issue of Handasa WeAdrikhalut in a text written by Artur Glikson.196 Glikson worked with Arieh Sharon in the Government Planning Division, which was directly subordinate to the Prime Minister's Office and from 1953 directed the planning section for housing in Israel. In his text Ways of Building Public Housing,197 he critically observed the lack of formal and functional links between individual units in earlier state housing projects. The majority of the text focused on analyses of grouped unit configurations,198 and one of its core contributions was the requirement for increased density. Density, Glikson noted, was previously regarded as a quantitative means for

195 Yaakov Ben Sira, the Institute for Building Research, Handasa WeAdrikhalut 12, (July-August 1954), 17. [Hebrew].
196 Glikson was born in 1911 in Koenigsberg, Germany. After receiving his diploma in architecture from the Technische Hochschule in Berlin-Charlottenburg he immigrated to Palestine in 1935. Glikson worked with Arieh Sharon in the Government Planning Division, which was directly subordinate to the Prime Minister’s Office. The new Interior Minister, former Tel Aviv Mayor Israel Rokach (in office from December 1952 until June 1955), restructured the division and dispersed it among five different towns. From 1953 Glikson headed the planning section for housing in Israel.
197 Artur Glikson, “Ways of Building Public Housing,” Handasa WeAdrikhalut 12, (July-August 1954), 13-17. [Hebrew]
198 Glikson maintained that in Israel’s hot climate and customary social practices, the provision of the individual family’s basic needs extended from the private domain of the home. The spillover of the private domain beyond the dwelling units’ walls needed to be reflected in the state’s housing solutions. The text analyzed types for dwelling configurations and introduced the idea of the “growing house” capable of change over time without obstructing the legibility of the overall plan while providing the residence a means to accommodate their changing requirements.
reducing expenditures, while it should have actually responded to a qualitative requirement for social cohesion.

During the 1950s and until his untimely death in 1966, Glikson was a prolific essayist as well as a practicing architect. He was assiduously involved in the post war, post-CIAM (Congrès internationaux d'architecture moderne) discourse on architecture, urbanism and regionalism and participated in numerous international conferences related to a wide range of concerns. In the mid 50s he took part in the Wenner-Gren Conference on “Man’s Role in Changing the Face of the Earth” and later participated in the Ciba Foundation conference on Man and his Future and in the International Seminar on Regional Planning in The Hague in 1957. In 1965 the Dutch architect Aldo van Eyck invited him to join Team 10’s meeting in Berlin. Along with the French engineer Jean Prouvé he participated as an outside observer and exhibited his model of an Integrative Habitational Unit for a new neighborhood in Kiryat Gat, a project he had worked on in collaboration with Al Mansfeld, David Best and Dan Havkin (Pl. 3.2 12). Glikson advocated for the integration of architecture with scientifically rigorous sociological and regional analyses, in which architects would collaborate with social workers, economists and environmental surveyors. This was a continuation of Geddes’ interdisciplinary research and his collaboration in the United States in the early 1920s with the scientifically inclined group influenced by the University of Chicago’s sociology department. Glikson’s efforts

199 Glikson was invited earlier in the 50s to lecture in the Netherlands on Regional Planning in the New Institute for Social Studies “which is the first department of the Netherland’s Universities’ Foundation for International Cooperation.” See Glikson’s Letter to Lewis Mumford from April 1953 in the Lewis Mumford Archive, Van Pelt Library, University of Pennsylvania, folder 1860.

200 Team 10 (also referred to as Team X) was a group of architects who had been assigned to organize CIAM (Congrès internationaux d'architecture moderne) 10 in Dubrovnik. The architects comprising Team 10 criticized CIAM’s urban charter and ultimately lead to the organization’s disbandment in 1959. See Max Risselada and Dirk van den Heuvel, eds. Team 10 in Search of a Utopia of the Present 1953-81, (Rotterdam: NAi Publishers, 2005), 121-123.


202 The planning group for the neighborhood in Kiryat Gat included Glikson as group leader and the architects: Al Mansfeld, David Best and Dan Havkin. Glikson was in charge of the site plan.

corresponded to related ideas developed by the GAMMA Group (The Moroccan section of CIAM - Groupe d'Architectes Modernes Marocains), the Canidilis-Josic-Woods practice as well as the work of van-Eyck to whom Glikson referred to in his writings.

Contrary to Functional City principles, in which the functions of the city were reduced to the categories of dwelling, work, recreation and circulation, with a typically segregated domain for each, Glikson extended the precept of the functional and offered a broader account of dwelling and human habitats.

*The functions of human habitations comprise the biotic, the cultural, the emotional and the rational aspects of existence, man’s ecology and economics, the desires of the individual and of the group. All these ‘dimensions’ are equally important and the neglect of one of them in the process of design destroys the environmental structure as a unit. Functionalism is a useful and acceptable term for the architect’s attitude, if he aims at more than the achievement of a ‘decent standard of living’. ‘Decency’ is just not enough to satisfy. Many slums fulfill some environmental desires of people in a better way than many decent housing schemes. This fact, instead of leading to a retreat from design, should stimulate us to re-examine our present approach. It is the whole range of man’s psycho-physical, active-passive and often divergent relationships to their environment, which should be considered as the functional background of the architecture of human habitations.*

Glikson’s appreciation for slums as viable environments for accommodating man’s dwelling needs had equivalent expressions in other countries. In the 1950s and well into the 1960s, a resurgence of interest in “unauthored” and unplanned dwelling environments informed architectural discourse. One of the more insurgent expressions against the prevailing tenets of modern architecture and urbanism was the GAMMA presentation at CIAM 9 at Aix-en-Provence (1953). By exhibiting their study of the Moroccan Biodonvilles, these delegates brought the spontaneously built Shanytowns on the outskirts of existing North African cities to the fore of architectural debates. The structural principles informing these improvised habitats bore,

\[^{204}\text{Artur Glikson, “The Concept of Habitational Unit,” Le Carré Bleu 4, (1966).}\]
according to GAMMA, a deeper sense of the term habitat than the new constructions propounded by CIAM’s functional credo.

Lessons of vernacular building influenced what was termed a regionalist approach to design. This approach was perceived as antithetical to universally valid architectural solutions. It opposed the mechanistic and standardized products of modernization deeming them irrespective of cultural and geographic specificities. Regionalism, in this sense, was a plea against abstract and quantifiable planning solutions, but in some cases it bore a romanticizing view of the vernacular and relapsed to atavistic design procedures. A corresponding idea at that moment sought to humanize architecture, which was mainly a reaction to the projects materializing as part of the post war reconstruction efforts. Confronted with the need to mass-produce vast numbers of housing projects, post war reconstruction was largely predicated on CIAM’s urban charter. The question of “housing the great number” had not been undertaken before at this scale, and many considered its outcome a devaluation of architectural qualities. Like regionalism, humanism assumed a variety of manifestations. José Lluis Sért’s essay *The Human Scale in City Planning* in Paul Zucker’s *New Architecture and City Planning (1944)* echoed Le Corbusier’s earlier polemics on design in accordance with a human module and also carried ideas related to the neighborhood unit discussed in section 3.1 in this chapter, but the main gist of the text lay in Sért’s emphasis on the importance of the civic center:

*The civic and cultural center constitutes the most important element of a big city, its brain and governing machine. It is at the same time the highest exponent of civic life.*

The prominence of the civic center was most likely influenced by Lewis Mumford’s critique on Sért’s earlier published book *Can Our Cities Survive* (1942). Sért’s focus on the civic center reappeared in 1951 at CIAM 8 in Huddesdon, in his report *Towards the Humanization of Urban Life*.

The prospect of “humanizing” architecture gained a different rendition in England. There the emerging Townscape proposals and the general renewed interest in theories of the picturesque promulgated during the 1940s by the *Architectural Review* and closely related to the Swedish New Empiricism called for a renewed national vernacular, capable of appealing to the “Man in the Street.” J. M. Richards, one of the editors of the *Review*, wrote in 1940 that modern architecture lacked popular appeal and needed to find a “middle ground” that could be appreciated by the public. Redirecting the functional rational polemic toward picturesque theories was also evident in Nikolaus Pevsner’s *Visual Planning and the Picturesque*. Pevsner was commissioned by Hubert de Cronin Hastings, owner of the Architectural Press, to write the book in 1942, when they were both serving as editors of the *Architectural Review*. The journal’s goal was to reveal and elaborate the history behind Townscape as a distinctly British post war effort. It promoted proposals for rebuilding bombarded London neighborhoods according to pictorial and visual sensibilities, which Pevsner had traced back to 18th century ideas on the picturesque. Defined “New Humanism”, “New Empiricism”, and the “William Morris Revival”,

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208 Sért had asked Mumford to write the introduction but Mumford demurred. He disapproved of the manuscript’s uncritical adherence to Functional City principles and its lack of a “fifth function” accommodating and representing the political, educational, and cultural role of the city. Mumford later reviewed the book in The New Republic in 1943.


211 See the later publication of the book: Nikolaus Pevsner, *Visual Planning and the Picturesque*, (Getty Research Institute, 2010).
this new approach advocated for a “softened modernism”, and revealed a typical decline of architectural rigor.\textsuperscript{212}

Glikson’s accounts of regionalism and humanism were not a counter-position to modernization. They were rooted in a broader understanding of ecological planning. He was not only referring to the meaning of the term ecological in the sense of the 19\textsuperscript{th} century German scientific meaning, which meant the adaptation of the genotype to its environment, presupposing a polarity between the subject and the object world and an objectification of the world as separated from the perceiving subject. Although he did not make the connection explicit, his thinking entailed an understanding of ecology in the original Greek sense of \textit{oikos} as expressed in Xenophon.\textsuperscript{213} \textit{Oikos} was understood as being a total ensemble that works together in order to establish a way of life. Embedded in this understanding – which in architectural terminology has been typically termed “context” – is a sense of totality in which all things collaborate with one another. This sense of place and belonging to place not only consisted of the natural environment but also comprised the man-made world of artifacts and human relationships. In other words, Glikson rejected the supposed antinomy and epistemological separation between culture and nature.

On a regional scale, his writings appealed to a design methodology in which city and country and their mutual dependencies constituted a more comprehensive planning practice. Like his colleague and friend, Lewis Mumford, who also edited his posthumously published

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{212} According to Reyner Banham, the 1951 Festival of Britain reflected this turn from architectural rigor. A refusal to relapse to past “styles” and sentimentalism was voiced a decade later in Banham’s attack on Italian historicism in an article titled “Neoliberty – The Italian Retreat from Modern Architecture”, published in \textit{Architectural Review} 125, (April 1959), 230-235, as well as in the 1959 last CIAM conference in Otterlo, where Peter Smithson launched a vociferous attack on Ernesto Nathan Rogers’ Torre Velasca skyscraper in Milan.

\item \textsuperscript{213} Sarah B. Pomeroy, \textit{Xenophon Oeconomicus, A Social and Historical Commentary}, (Oxford: Oxford University Press, 1994), 31-68. Indicating this similarity was Glikson’s explanation of the human habitat as comprising also man’s “ecology and economics”. This sense was rooted in Greek understanding of environment as embracing family, land, servants, animals, and neighbors – the natural and social region in which one lives and relates to others.
\end{itemize}
\end{footnotesize}
writings,\textsuperscript{214} he subscribed to planning which sought to extend the overtly simplistic and mechanistic procedures of the Functional City principles and rejected a view of the city as independent from the extended region in which it was situated. The city, he maintained, was not an isolated unit but part of a more extensive region which exercised social, economic and political influence on it. The region too was part of a larger territory, and finally national structures were part of an international community subject to geopolitical structures. Regional planning, according to Glikson did not mean secluding regional units. It entailed, rather, the consideration of and planning for inter-regional relationships. He understood regionalism as a universal human concern yet he maintained that:

\textit{The only way to concretize such a concern lies in its application to specific places, communities and situations, and in fostering of a specific environmental character.}\textsuperscript{215}

By regionalism, therefore, Glikson did not intend the isolation of populations from international influences or a sentimental reversion to past styles and construction methods. He emphasized, rather, the underlying unity between regionalism and universalism, and upheld modern architecture’s progressive qualities while, at the same time, advocating for its placement and adjustability to a particular place and culture.

The concept of “humanizing the environment”, closely related to his ideas on regionalism and ecological planning, was reflected in the insistence that the individual dwelling unit, albeit the basic component in town planning, could not be solved in isolation. Sir Patrick Geddes’ man-environment association, which would play a significant role in shaping post-CIAM urban discourse, was also an acknowledged influence on Glikson’s thinking, particularly Geddes’ direct

observation of natural phenomena and the relationship between the living organism and its habitat. In his text *The Planner Geddes* Glikson was explicitly appreciative of the Scottish planner’s interdisciplinary background as biologist, sociologist and town planner. As he has written:

>The life of a plant or an animal is not delimited by its body, but also covers a certain neighborhood, building it and being built by it. It is continuously in mutual relationship with its environment... From the start Geddes included human life within the scope of this concept; the relationship of man to his environment is one chapter only within the wider subject of the relationship of the living organism to its environment. In this manner, Geddes was led by the study of biology and later, geology – to an interest in the social sciences, to anthropology and economics on the one hand, and geography on the other hand.\(^{216}\)

The man-environment association suggested that the individual living unit was not an abstracted entity devoid of a natural and social milieu. It could not be dissociated from the planning of unit clusters, the planning of a neighborhood, a city, and a region. Glikson regarded the single dwelling as enmeshed in a wider web of dwelling practices and understood the functions of the human habitat as extending beyond the accommodation of one’s immediate material needs. Although the dwelling unit, the strictly private domain, was certainly required to accommodate basic material requirements it was insufficient in itself. In this respect his thinking somewhat corresponded to Hannah Arendt’s contemporaneous *The Human Condition* (1958), although there is no indication that he was aware of this text. Arendt described the Ancient Greek concept of the private realm in which the provision of one’s material survival was assured but stressed that this realm was perceived as denying its subjects an indispensible human quality. In the Ancient Greek world, one who was confined to the private space of labor was essentially being *de-privileged*:

A man who lived only a private life, who like the slave was not permitted to enter the public realm, or like the barbarian had chosen not to establish such a realm, was not fully human.\textsuperscript{217}

Although in the modern world the private domain had assumed additional meanings, the Ancient Greek notion of its primary concentration on the preservation of life in the strictly material sense and, therefore, its insufficiency for accommodating other indispensable human requirements reverberated throughout Glikson’s writing.

Building upon the idea of what it means to be human as a-priory involving being among others, Glikson pointed to the idea of “humanizing architecture” through the “house and the world” nexus maintaining that space is humanized when it is both a distinct entity as well as one linked to and associated with other spaces in an environmental continuum:

\begin{quote}
Environment is ‘humanized’ by the inclusion of any particular place into a series of ever widening frameworks (from the house to the quarter, the town, the region, the world). The concept of the human habitation comprises the inter-relatedness of the house and the world, of the world and the house... to turn this interdependence into a valuable structure also means the revitalization of the structure of each environmental unit. Architecture, Urbanism and regional Design must all, therefore, be concerned with each other in order to form the human habitation.\textsuperscript{218}
\end{quote}

This nexus was attainable by virtue of a “composite structure of associations; from the individual, via the small group, to the people, to humanity.” Human culture, he wrote, evolved with insuring the viability of existence on each of these levels and the intensification of interactions between the levels. In other words, humanizing architecture entailed not only design for individual life subsistence (the condition of labor in Arendt’s text, or the concept of

\textsuperscript{217}Hannah Arendt, \textit{The Human Condition}, (Chicago: The University of Chicago Press, 1958), 38.
Existenzminimum) but also for collective association and interaction on a range of levels and intensities.219

The growing disproval in the mid-1950s of the earlier public housing schemes was based on their inability to express this collectivity. Establishing an Existenzminimum was certainly linked with the immediate post 1948 moment of frugality and necessity in an effort to provide thousands of new immigrants with certain rudimentary living conditions, but it unwittingly reduced the question of human habitation to quantifiable measures and square footage. These mass produced environments lacked a clear relationship between their disseminated components and failed to underscore public life, a precondition for assuming a public in the first place. The collectivity desired in the new Israeli towns was yet to establish the concrete grounds for its realization. It is perhaps because of this failure that many inhabitants regarded the new towns a temporary solution, a transitioning stage until they acquire employment in the existing and more established urban centers.220 What rendered these environments temporary was the inability of their occupants to associate with them, a condition which was correlated, although not exclusively, with a deficiency of opportunities to develop public life. Although the New Towns’ civic center was devised for public use, it was largely impaired by vacuous contextual conditions – mainly by its functional and formal segregation from the dispersed dwelling units, which usually predated its completion.

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219 This resonated with the Doorn Manifesto, a draft on habitat prepared in 1954 at the preparatory meeting for CIAM 10. Titled “Statement on Habitat” it incorporated Peter Smithson’s rendition of Sir Patrick Geddes’ “valley plan of civilization” from an article Geddes published in 1925. According to the manifesto, cities studied and drawn according to the Athens Charter (the Functional City tenets) “tended to produce ‘towns’ in which vital human associations are inadequately expressed”. The manifesto proposed to research “urbanism as communities of varying degrees of complexity”. The types of communities drawn in the valley section corresponded to a diagram depicting the “scales of human association”. In the latter, cities represented the most intensified scale of human association, followed by towns, villages and, finally, detached buildings.

220 See “Housing Activities – Review and Plans, chapters from the Housing Department report for the fiscal year 59/60,” Handasa WeAdrikhalut, no. 7-8, vol. XVII, (July-August 1959), 174. [Hebrew].
Not only was public space a means to foster a sense of belonging thereby guaranteeing some sense of constancy, the perception of a space as public was in fact conditioned by its stability and temporal continuity. Arendt expressed the notion that a viable public realm relied unreservedly on permanence. As she has written:

*Only the existence of a public realm and the world’s subsequent transformation into a community of things which gather men together and relates them to each other depends entirely on permanence. If the world is to contain a public space it cannot be erected for one generation and planned for the living only; it must transcend the life-span of mortal men.*

*Without this transcendence into a potential earthly immortality, no politics, strictly speaking, no common world and no public realm, is possible...*\(^{221}\)

Public space was important not only because it shaped life in the present but because it was associated with past and future events, which shaped the collective character and sentiments of a people. As Arendt has written:

*The common world is what we enter when we are born and what we leave behind when we die. It transcends our life span into past and future alike; it was there before we came and will outlast our brief sojourn in it. It is what we have in common not only with those who live with us, but also with those who were here before and with those who will come after us.*\(^{222}\)

From the mid 1950s, architectural discourse in Israel was increasingly trying to grapple with the desolated living environments comprising many of the Israeli New Towns. In the following years, the Housing Department initiated research into potential new forms of dwelling, and the development of new typologies consequently ensued.


\(^{222}\) Ibid.
3.3 Research in Collective Form. 1950s, 1960s.

Glikson’s thinking was among the voices stimulating a new climate in the Housing Department. In 1957 (this year also marked the completion of the 3-year plan initiated in 1954) collaboration between the Ministry of Labor and the Baroness Bathsheba de-Rothschild established a research foundation for the study of the immigrants’ housing problem. The young architect Avraham Yasky was appointed head of the research committee concluding and submitting its report to the Department of Housing under the Ministry of Labor in 1958.\footnote{The report and its content are described in Sharon Rotbard, *Avraham Yasky, Concrete Architecture*, (Tel Aviv: Babel, 2007). [Hebrew]. An excerpt from the report was published in *Handasa WeAdrikhalut*, no. 7-8, vol. XVII, (1959), 186. [Hebrew]}

Many of the recommendations bore strikingly similar guidelines to those suggested by Glikson in 1954. Glikson was also on the foundation’s committee of trustees. Although the report concluded that the new immigrants’ country of origin was not to be factored into planning programs “because the inclination is to consolidate a uniform Israeli lifestyle,”\footnote{B. Rothschild Foundation for Research and Planning of Low Cost Housing. Excerpt published in *Handasa WeAdrikhalut*, no. 7-8, vol. XVII, (July-August 1959), 186. [Hebrew]} it did recommend a certain amount of flexibility for the units in order to give the residents the means to adjust them to their specific needs. The concept of “the growing house” was once again proposed as well as the idea of “outdoor dwelling” reflecting the spillover of indoor family life to exterior spaces. As Aviah Hashimshini has shown, another influence on the research of new housing patterns came from the *Interbau* building exhibition, held in West Berlin in 1958, in which a self-contained residential neighborhood included a variety of types planned by leading architects from different countries.\footnote{Avia Hashimshoni, “Architecture,” in Benjamin Tamuz, and Max Wykes-Joyce eds., *Art in Israel*, (Philadelphia: Chilton Book Company, 1967), 222-223. First published in 1963 in Hebrew by Massada. A total of 48 contributing architects designed types in the district. Among them were Le Corbusier, Oscar Niemeyer, Alvar Aalto, Jacob Bakema and Walter Gropius. The earlier exhibition from 1927 held in Stuttgart, the Weissenhof Estate – Weißenhofsiedlung – also had a lasting impact on concepts of modern housing.}
Following the Rothschild report’s conclusions, the Department of Housing launched a campaign for the planning of three exemplary neighborhoods in Haifa, Tel Aviv and Beersheba. Correspondingly, in the summer of 1959 the Engineers and Architects’ Association dedicated its journal *Handasa WeAdrikhalut* to the new research on housing (Pl. 3.3 13). Some of the new projects were in the process of construction, others still on the drawing boards. The editorial exordium outlined the new orientation:

*The publishing house believes it is important to publish the concepts in their early stages for the sake of mutual study of different ideas, and for the initiation of a public debate as an imperative step toward consolidating the course of public housing in Israel. Although the material presented includes objects at different locations, and is the product of different planners, the plans share similarities. Increased density and urban consolidation, more variety in the types of apartments, the abrogation of wide-plain vegetation strips and the assemblage of the public buildings into effective neighborhood centers – all these characterize the plans. Yet the most noticeable change is the planner’s determination to form the neighborhood as a consolidated social and architectural unit. In place of schematic planning, satiated with ‘standardized types’, the neighborhood is treated as a unit located in a specific environment and climate, and intended for social ingathering, and the development of proper community life.*

Ben Sira wrote the first text in the issue. It was a further elaboration of his previous texts and, like the editorial exordium, revealed the profession’s change of course:

*Housing presents many problems and is subject to controversial discussions by architects, engineers and the general public and its leaders alike. The shape of our surroundings is being molded by our housing activities, bearing witness both to our achievements and failures. The problems are manifold. The individual house and its inner subdivision of space and paths of movement as well as the multi-apartment building and the building groups forming a quarter, a neighborhood or a town, all present different aspects of the problem... Admittedly, however, the group, the immediate neighborhood is perhaps more responsible for determining the tenor of housing than the individual dwelling. One of the major difficulties arises from the repetition of the unit which on becoming a ‘legion’ frequently disturbs form and lowers values. The problem, then, becomes how to group units with emphasis and pause avoiding monotony and accumulative effect of negative features... It is gratifying to note the progress*

226 Editorial note. *Handasa WeAdrikhalut*, No. 7-8, Vol XVII, (July-August 1959), 172. [Hebrew]
we made in ten years from the two-storey four-apartment house, repeated to boredom, – to present day solutions. However, the extreme solutions of 15-storey buildings or multi-storey long drawn out buildings, together with grouped one-storey buildings or other combinations, cannot be viewed yet as final solutions, although by presenting the problem under limiting conditions, they have contributed very much to its clarification.  

Ben Sira noted the appearance of several new typologies. The elongated types “long drawn out buildings” planned by the Yasky-Alexandroni partnership and the Mansfeld-Weinraub partnership in Beersheba and Haifa respectively are a case in point. Both referenced the Unité d’Habitation in Marseille, yet their location differed considerably. In Haifa, the 200 unitprodigious mass, designated “T block” (1959-1964) formed one type among others in a model neighborhood (Pl. 3.3 14). The different types were designed by a group of architects. “Type T” was planned by Al Mansfeld and Munio Gitai Weinraub, and “Type S” and “Type N” were designed by Dan Havkin and Shlomo Gilad. Aviah Hashimshoni who was also Dean of the Technion’s School of Architecture was part of the team designing the neighborhood’s master plan.

The basic aim was to create a compact urban unit, while preserving the natural beauty of the steeply sloping site and the magnificent vistas to the sea and wadis. The central area of the hill has been reserved for community buildings which will serve the whole town – a concert hall, a museum, a large shopping center. Compactness without undue density for the residential buildings has been achieved by a variety of building heights and volumes: 15-17 storey point houses, 12 story blocks with elevators, 8-storey blocks with median access...and also 1-2 storey ‘carpet’-type patio houses, the total number of dwellings in this scheme will amount to about 1,300.

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228 The following publications include some of the aforementioned new types: Sharon Rotbard, Avraham Yasky, Concrete Architecture, (Tel Aviv: Babel, 2007). [Hebrew]. Richard Ingersoll, Munio Gitai Weinraub: Bauhaus architect in Eretz Israel, (Milano: Electa, 1994).
229 Handasa WeAdrikhalut, No. 7-8, Vol XVII, (July-August 1959), 191. [Hebrew].

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Type T followed the contour of the mountainous topography by bifurcating the mass vertically into two sections linked slightly angularly (Pl. 3.3 15-17). The mass was also divided horizontally. The bottom division included a lower parking platform and three storeys of apartments above. The top part contained six storeys of apartments, and the open platform in between captured views of the valley. It was co planar with the curving road leading to the building, which grasped the edge of the terrain before the steep decline into the vale. The building was disconnected from the road by virtue of the descending terrain, and reconnected to it by a suspended pedestrian bridge. Given this drastic topographical situation the building bore two scales: one pertaining to its scaled-down image, revealing its upper stories only, the other, pertaining to its exceptionally vast measures seen from either the valley or farther down the approach road. The open platform was planned as a public space which included regularly positioned vertical stair shafts connecting the different levels and a number of public functions servicing the residents of the super block: a grocery store, a crèche and a post office. In addition to its obvious semblance to the Unité, a connection to Moisei Ginzburg’s Narkomfin building of collective living in Moscow (1928-1932) could be discerned.230

Yasky and Alexandroni’s metonymical “Quarter Kilometer Block” (1958-1960) was also outstandingly large (Pl. 3.3 18,19). It was comprised of four storeys mounted on pilotis. Three types of apartments were integrated into the block including the well-known duplex flats, also influenced by the Corbusian type. The massive structure included a “street deck” – an elongated pedestrian walkway on the outer edge of the building connecting the flats. Resonating with both Le Corbusier’s Rue Intérieur and, later, Alison and Peter Smithson’s celebrated “street in the air” it remained more akin to an extended corridor, bereft of the multivalence, energy and valor of street life, much like its comparable precedents in France and England.

Like the multi-type neighborhood planned for Haifa, Yasky and Alexandroni’s Quarter Kilometer Block in Beersheba was conceived as one component among others (Pl. 3.3 20,21). Like the team plan in Haifa, the plan of the neighborhood in Beersheba was carried out as a joint effort among a team of architectural offices through a lottery-based procedure. The team included the practices of Avraham Yasky and Amnon Alexandroni, Nahum Zolotov, Daniel Havkin, Teodor Kiselov and Aaron Bareli, representatives of the Housing Department: Meir Chechik and Bitosh Comporti and Dov Karmi, Zvi Meltzer and Ram Karmi.\textsuperscript{231} The idea was to offer a composition of several different types with different unit sizes corresponding to a range and diversity in the population. It was conceived as an “Integral Habitational Unit” to borrow Glikson’s useful phrase, with an aim to fulfill a fundamental urban requirement: maintaining concordance among a diversity of constituents, or achieving unity in diversity. As the city, according to Glikson:

\begin{quote}
*Thrived on diversification, competition and the integration of contrasting elements. In the course of attempts to balance or relate the diverse elements and factors to each other, life gains a new dimension and becomes urban life.*\textsuperscript{232}
\end{quote}

This was particularly pertinent for Israel at this moment. Israelis came from many different cultural backgrounds, and Glikson was against the preceding protocols of planning for the “average family”. For him, this practice entailed leveling and reduction and was formally manifest in the “regimentation of population and the uniformity of mass housing”, which were principally incongruous with and even contradictory to urban life and the idea of integrating differences. While the Housing Department could not fully comply with and plan for the intended residents’ particular cultural practices, its planners were starting to reflect on the significance of diversity while concomitantly bound to a declared national aim of integration. While according to

\textsuperscript{231} Israeli architectural historians have written about the neighborhood in recent studies. See Zvi Efrat, *The Israeli Project, Construction and Architecture 1948-1973*, (Tel Aviv: Tel Aviv Museum of Art, 2004), 327-350. [Hebrew]. And Sharon Rotbard, *Avrahm Yasky, Concrete Architecture*, (Tel Aviv: Babel, 2007), 559-605. [Hebrew].

the Zionist melting pot ideal the possibility for integration entailed the effacement of differences, differences and integration now seemed much more compatible. Consequently, state planning needed to reflect this condition. As Glikson has written:

*The idea is based on the belief that the emergence of the values of urban life can be assisted by deliberate environmental creation. By shaping a suitable relationship between the various individual dwellings of the different types of the urban population, and by relating them to the community services and centers, we hope to foster urban community development and arrive at new composite urban structures.*

Havkin and Zolotov’s low built, high-density housing grid, the “carpet neighborhood” (1959-1964) as it was referred to, was one of the more intriguing types in the neighborhood. It was a matrix of living units enmeshed in a network of partially covered walkways (Pl. 3.3 18,22,23). For Zolotov, the motivation for the low-rise carpet configuration was predicated on a need to protect the ensemble from desert winds and abusive sun tying its density and its encircling by the higher types to concrete climatic requirements. Ben Sira maintained a similar notion:

*In low-density building located in areas inclined to vegetation, it is possible to ease the problem of grouping with large spaces between the buildings. But with increased demand for high-density building due to economic reasons and constraints on development and maintenance, the problem becomes more acute.*

In a similar vein architect Amnon Alexandroni noted: “What may have been right for England was certainly not right for us.” Alexandroni was referring to the model neighborhood in Beersheba in the parched Negev region, which did not comply with the Sharon Master Plan’s

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233 Ibid.
236 Interview with Alexandroni was held in July 2014 in Tel Aviv.
projected green lush. This was also argued earlier by Glikson who wrote about the problems rising from large desolate spaces left between buildings for the purpose of future development.\textsuperscript{237} In Beersheba, the inauspicious desert conditions of scorching sun and brutal glare impeded realization of the master plan’s intended Arcadian landscape and vast open spaces of a coveted verdant landscape remained desolate and bare. The irrigation infrastructure required for sustaining wide green belts in Beersheba was unfeasible in terms of initial expenditure, but also the amount of water required to sustain the lavish vegetation was not relevant in the dessert’s conditions.

Although climatically suitable for the Negev region, Zolotov and Havkin’s carpet neighborhood also reflected a change in the conception of dwelling \textit{culture} as perceived in contemporary Israeli planning circles. Most striking in their carpet neighborhood was its similarity to concurrent mat building, infrastructural thinking prevalent in post CIAM circles elaborating and expanding the concept of \textit{habitat}. Their project was predicated on the concepts of the “growing house” and “outdoor dwelling” and the provision of a substructure, which would preserve a coherent urban image as well as allow flexibility and transformability within its constituent parts. The mat infrastructure and its extendable units insured the neighborhood’s overall consistent and legible image while enabling individual unit adjustments. The units in the carpet neighborhood had the capacity to extend into the back and front courtyards thus allowing their inhabitants to interpret and modify the space according to their needs.\textsuperscript{238}

Flexibility was to play an important role in contemporary architectural theory and practice both in the West and Far East among Team 10 members and later among their Japanese

\textsuperscript{238} Similar typologies were studied and offered by the Yasky-Alexandroni practice, see Sharon Rotbard, \textit{Avraham Yasky, Concrete Architecture}, (Tel Aviv: Babel, 2007), 559-605. [Hebrew]. See also Hadas Shadar, \textit{The Corner Stones of Public Housing, Six Decades of Public Urban Building in Israel}, (Tel Aviv: Ministry of Construction and Housing, 2014). [Hebrew].
interlocutors in the Metabolist circles. Providing an infrastructural system, which would maintain its permanence as image while accommodating change and variation was to become a central objective in post war planning initiatives. Since dwelling environments corresponded to social, economic political and natural circumstances, some of their components were subject to continual modification. As a consequence, cities were acknowledged as bearing perennial elements, “identifying points with a long cycle of change” as well as transitory components with a shorter life span. Several architects contributed to the development of this concept the traces of which could be found in Louis Kahn’s distinction between “servant” and “served” spaces. Peter Smithson’s “fixes” and “transients”, Shardrach Woods’ notion of stem and the Metabolists’ ideas of structure and infill (which would later in the decade influence Archigram’s plug-ins) reflected an awareness of and concern with the permanent character of certain urban elements. This, however, was not because the city was believed to be an immutable or static entity. The permanence of certain urban elements was a formal and conceptual instrument for urban planning accommodating and reflecting growth and change. For all these architects, the city was a vigorous place subject to inexorable transformations. It was transformed by construction, as well as by its susceptibility to decay, altered again by a renewed process of reconstruction. The city’s permanent elements were regarded as the means to configure this dynamism.

Havkin and Zolotov’s carpet neighborhood thus responded to climatic and cultural conditions. It considered natural elements, environmentally challenging conditions, and those rooted in the man-made environment involving ways of life. Like Glikson’s broad concept of ecological planning, their project should be understood as embodying the interrelationships between the inhabitants and their natural and artificial surroundings. Avoiding short-term housing solutions in favor of dwelling environments, which would induce a sense of belonging and a more stable sense of permanency, they were aware of the fact that a sense of belonging was linked with
making one’s space their own. At the same time, the adjustment and modification of the individual unit could not infringe upon shared public space and obfuscate the total impression and coherency of the neighborhood as a whole. Unity was afforded through diversity while constancy facilitated change.

The interest in a steady substructure facilitating flexibility and change characterized one aspect in Zolotov and Havkin’s neighborhood. Their project also negotiated between single and collective spaces and problematized instances in modern architecture, which often treated these supposed polarized conditions too simplistically. The interior, partially covered pedestrian streets performed as “in-between realms” to use van-Eyck’s evocative term. They were neither strictly private nor strictly public but a mediating zone, which thickened the formal limit between the two domains. Correspondingly, they could accommodate both anonymous pedestrians moving through the neighborhood as well as the more intimate activities performed by the residents. Occasional wider openings offered enclosed pedestrian squares and further indicated that public space was no longer treated as left over space but as an essential element within a dwelling configuration (Pl. 3.3 24,25).

The idea of public space as an imperative constituent in a dwelling fabric was present in Zolotov’s other contemporaneous projects. In the early 1960s he planned an agricultural farm in Ne’ot Hakikar situated south of the Dead Sea near Ein Tamar for approximately 10 members (1962-1964). The project was a model for collective living comprised of a central courtyard surrounded by pre-cast individual units, each including its own yard and upper sleeping verandah. The plan also contained a communal dinning room, kitchen and club (Pl. 3.3 26-29). Although completely different in scale, it bore a striking resemblance to the structuring principles of a Carthusian monastery. The Florence Charterhouse (Certosa di Firenze or Certosa del Galluzzo),
which had exerted a considerable influence on Le Corbusier, is a case in point. The much smaller agricultural farm in Ne’ot Hakikar embodied a comparable value of collective solitude. Like the monks in the Carthusian monastery, each member of the collective farm had his own private indoor as well as outdoor space. The private cells enclosed an open courtyard one side of which was framed by the collective spaces for shared use. These spaces were accessible through the internal courtyard, which structured the entire ensemble. The composition was modeled, as the analogy suggests, on the monastic cloister. The secluded dwelling environment like a small citadel, offered a somewhat autonomous structure safeguarded from external factors although the farming land, much like in the secluded monasteries, existed beyond its protected borders. The project was predicated on the construction of a dwelling ensemble consisting of private and public spaces, and reflected the mutual dependencies among people and their natural and artificial settings. The courtyard was literally the formal and symbolic heart of the setting in which community life took shape. It was a framed and well-defined “urban room” for communal use.

Zolotov’s modular, dense composition set in a mat configuration reappeared in his plans for a hostel in Ne’ot Hakikar. Initiated by the Ministry of Development, the hostel was planned to accommodate 140 visitors in either 2-bed or 4-bed rooms. The cells were intended to be precast in Beersheba and “transported in their entirety to the building site”. Like the carpet neighborhood in Beersheba, the cells at ground level flanked pedestrian passageways. Second storey cells were planned to cover the routes intermittently forming a forceful pattern of light and shadow. As in the communal agricultural farm, the layout included a larger enclosed courtyard and a number of shared functions: a kitchen, a dinning room and a shop (Pl. 3.3 30,31).

The above-mentioned three projects maintained the conviction in and employment of modern production and construction techniques. The reliance on standardization and seriality was

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239 Le Corbusier referred to the monastery as the Charterhouse of Ema. The monastery is located on Monte Acuto near Florence at the confluence of the Ema and Greve rivers.
not obviated but emphasized, and mass produced (also precast) elements were encouraged not concealed. In these cases, regularity and repetition did not entail monotony because the multiplied components were consolidated into a plastically and functionally coherent ensemble. While the questions of fabrication, construction and economic efficiency were key, they did not replace the importance of composition as a reflection of a way of life.

The idea of a street, a neighborhood and a city now emanated from their human purpose: to provide a place for human identity, association and integration. Denser dwelling configurations and a concentration on spatial qualities were coupled with a renewed emphasis on public space, which was primarily addressed through the neighborhood center. For Ben Sira, this ingredient constituted the pith of the new dwelling environments. He maintained that:

*It would no longer be treated as an apparatus for providing services on a statistical basis; but would be filled with social content, performing as a center of attraction and embodying the individual’s affinity to the neighborhood unit. There is growing awareness among our architects and planners, seeking ways to consolidate, with meager means, a pleasant image for dwelling, in terms of the unit and in terms of its integration in the overall grouped dwellings; within these efforts the neighborhood’s center affords the means to convey a stable relationship between dwellings, in which the separate family life is developed, and the integrated social content, which incorporates the individual’s paths into a unifying weave.*

The renewed emphasis on the neighborhood center was part of a larger attempt to conceive the city as a composite of subsystems, in which each sub unit would have its own nucleus. José Lluís Sért had already developed this notion in the 1940s suggesting a distinct civic nucleus for the neighborhood, the town, the city and the metropolitan area. The scalar idea of

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the nucleus followed in his later text *Can Patios Make Cities?* (1953).\textsuperscript{242} A composite structure for the city was suggested in van Eyck’s writings as well. Introducing his concepts for a *Configurative Discipline* in 1962, van Eyck propounded “superimposed configurative systems”, distinct formal and functional unit configurations, which would nevertheless contribute to the legibility of the city as a whole. He maintained that cities were places for highly differentiated human association. As such, they needed to sustain the different character of a diverse group of people and enable each group to establish its identity. At the same time, and in order to avoid ghetto-like clusters, a city was required to encourage mutual integration and diffusion between its cultural fragments and impart a wider, mutual city-identity to its citizens. He considered multiplication of dwellings not a question of repetition and a mere accretion in number or size but a question pertaining to the ability of each “multiplicative stage” to attain formal coherence and functional content. As he has written:

*Each multiplicative stage should therefore achieve its appropriate identity by assimilating spontaneously within its structural pattern those public facilities this stage requires and which inseparably belong to it.*\textsuperscript{243}

Thus each subsystem would acquire its own identity and embrace the public facilities to accommodate its inhabitants. van Eyck’s main contribution lay in his emphasis of the units’ interconnectivity and mutual dependence:

*All systems should be familiarized one with the other in such a way that their combined impact and interaction can be appreciated as a single complex system—polyphonic, multirhythmic, kaleidoscopic and yet perpetually and everywhere comprehensible. A single homogeneous configuration composed of many subsystems, each covering the same overall area and equally valid, but each with a different grain, scale of movement, and association potential.*\textsuperscript{244}


\textsuperscript{244} Ibid., 176.
Achieving these dual objectives of distinctness and dependability was proposed through a decentralizing model in which the dispersal of large structural elements “with a specific civic meaning or city forming potential” in the city’s diverse sub-areas would impart different identity to each one of them, while concurrently encouraging citizens to participate in and physically attend all areas of the city.  

Ben Sira held a similar conviction. Resonating with his earlier appeal to construct multiple centers in Tel Aviv accommodating local residents as well as housing municipal and state institutions drawing users from across the city and state, he questioned the use-value and projected public for which the neighborhood center was intended:

> The question that always arises regarding the neighborhood center is whether the center must accommodate the neighborhood’s requirements alone, or rather also provide services which a general city center is typically equipped for...  

This proposition would potentially render the neighborhood unit more permeable to outside users avoiding its too-often association with social and cultural segregation. Having multiple centers in various neighborhoods, each providing basic functions for the neighborhood residents but also including different civic elements and a particular place reference, would encourage residents from all neighborhoods as well as from out of town to visit these centers, which would otherwise be insignificant to them. Subsequently, the neighborhood units would be only partially independent. They would constitute distinct identifiable but interrelated parts of the town and contribute to the town’s overall legibility. The question of community would then address individual neighborhoods but also extend beyond them to facilitate inter-community and

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245 Ibid., 144-5.
cross-neighborhood ties. The community center, with its variety of public functions would thus bear the challenge of linking otherwise separated districts. Once again, albeit at a different scale, the question of integration became compatible with difference.

4. Public Space; an Unrealized Promise


Commissioned by the state’s Housing and Development Company in the late 1950s, the practice of Karmi-Meltzer-Karmi (one of the firms assigned a section of Beersheba’s model neighborhood housing blocks which was ultimately not constructed) developed a radical architectural type between Beersheba’s Neighborhoods B and D. Though similar typologies were being explored in other countries, their application in Israel was unprecedented. Beersheba at this moment was, in many senses, the hatching ground for urban experiments where the young Ram Karmi commenced his long-term contribution to the city’s architectural repertoire. Although the project reflected some of his father, Dov Karmi’s earlier projects, in which interiorized public space was integrated into a building, as in his urban passages (Hod Passage and Allenby Passage with Arieh Sharon (1949), both in Tel Aviv), it set additional goals and bore what was to become Ram Karmi’s unequivocal mark. Ram Karmi had returned to Israel a number of years earlier after completing his architectural studies at the Architectural Association in London (1951-1956). Joining his father’s practice, he would become a prominent and energetic force in the firm, and would ultimately divert its collaborative nature to assume more of his own control (especially after the premature death of his father in 1962.)
The project’s program required a mixed-use composition, combining dwelling units, office space and commercial and cultural uses. In outright opposition to functional use-zoning and dispersion informing planning protocols in the 40s and 50s, the project reflected a renewed pursuit of urban integration, density and diversity and was tellingly named Merkaz Hanegev – the center of the Negev region (lit. Negev Center). Karmi was adamant about returning to fundamental urban values but stressed the need to adjust them to the requirements of the modern era. Correspondingly, he sought the formation of a coherent and legible urban fabric in which public space would be a primary constituent. In an article published in 1966 he retrospectively reflected on the conditions instigating Merkaz Hanegev:

*During the hasty building of housing and building combinations devoid of any social and human meaning, urban desolation is revealed in which man can not find his place... No one is thinking about the basic needs of man in his city. We have created an ‘anti place’ and an ‘anti space’.*

*The city accommodates two fundamental requirements: it provided shelter and protection from nature and solitude, and offers a variety of sources for employment and existence. This dense and complex unit is a kind of greenhouse for culture and civilization. From time immemorial the city was a fertilizing meeting place for individuals and the public organizing its life...*

*In ancient Greece the philosophers roamed the public marketplace, the ‘elders’ occupied the city’s gate, also the location in which the profits delivered their public address. The city was always a fertilizing ground and platform for their ideas.*

*On the other hand, in our times when the automobile extends man’s movement and his daily activities, when the radio, newspaper and television penetrate his home and reduce the need for human association, the human dimensions of the Medieval and Renaissance city are weakened. It seems that the need for face-to-face interaction has become outdated.*

*Yet it is only apparently so that the value of the city as a platform for association, ceremony or celebration has been abrogated. The load of technological development overburdens the old urban systems. Man, who has not yet found his identity and his connections in the new reality, has also not constructed the right city. The modern city has not yet been created, and in its place there is chaos in which obsolete and hindering patterns and a plethora of mechanical means exist. The harmony of city life has been disrupted.*
At one time the city was an organic and autarkic structure: a defined interior enclosed by a wall beyond which existed an exterior space. Currently, the frame has disintegrated; the city broke out of its limits and, consequently, lost its uniqueness. Exterior and interior intermingled thus obliterating the sense of place and the sense of belonging to it. But the need for the city as a framework for human interactions exists since long ago. We can see how essential it is if we observe the crowds passing daily and specifically on the Sabbath along Dizengoff Street. Seeing the popular parliament along Rothschild Boulevard, the special life of the promenade, Hayarkon Street and the Carmel Marketplace, is sufficient for acknowledging that man wants all these places...

In order to understand how the city’s harmony has been distorted and in order to seek new solutions, it is worthy to return to the initial and basic component – the ‘atom’ of the city – the house.

Man builds himself a house. He creates shelter and a nest for himself and his family. The house answers his need for sleep, food, family gatherings and seclusion. Every space in the house has a meaning and a value of its own, a certain ambiance, its furniture and an inherent link to the other components in the house. The connection between the different elements in the house and their harmony turn the house into a home. A neighborhood, like a house, has ‘rooms’, and in these rooms different activities take place requiring ‘furnishings’, an atmosphere and reciprocal relationships among them. The city is a group of neighborhoods, the neighborhoods a group of streets, the streets are a group of houses, and the houses are a group of rooms. Levels of social connections accommodate a variety of needs from the most elementary and essential to the more complex and particular.

The correct plastic expression for the transitions from one level to another, from one activity to the next, makes the city an organic unit. Thus it becomes a home, a place for man to which he belongs. It is insufficient to erect a playground, public gardens, a commercial center, a school and even a theatre: these places must be connected to each other, nourishing each other, so that the people may naturally access them and freely situate themselves in them. Typical urban activity exists in a place where different functions integrate in a dynamic harmony. This activity creates what we may define plastically – the texture of a city...

The urban dynamic is weaved in a complex texture of arteries, fibers, structures and points of attraction, creating places and passages. It is a living fabric constantly in a state of expansion. The ideal city should have a limited capacity for expansion... there is no urban texture that can develop ad infinitum; when it surpasses its natural growing limit, it starts to envelop itself with asphyxiating rings and degenerates... The building [in Beersheba] tries to offer a first step from which, perhaps, an urban texture will emerge. A step, which will be a ‘place’ and will contain a microcosm of urban activity... 247

Notwithstanding the inconsistencies and contradictions in the text, and its erroneous indication that the enclosed historic city was completely disengaged from its vicinity, it bore many resemblances to contemporary thinking in other parts of the world. Karmi’s years at the London A.A. were likewise evident in his writing. At a moment when statistical analyses and functional categorizations seemed to have taken over city planning, relinquishing the city’s stature as a formal artifact, thus prompting its physical disintegration and, consequently, its distancing from the realm of architecture, many architects of Karmi’s generation sought the opposite by appealing to a lost urban fabric, adhering to the notion of texture and grouping, as well as to an emphasis on the relationship between objects rather than a focus on the objects themselves. Urban analysis and planning, no longer based on the city’s diagrammatic and static functional obligations alone but on its establishment on a scale depicting the degrees and tempus of human association and social practices, resonated with statements made in Israel by figures like Artur Glikson (see chapter 3). It gained prevalence in Europe and America as well. In some cases it was coupled by a renewed interest in historic city fabrics, not necessarily entailing their nostalgic reproduction but rather subscribing to a “reading” of and “participation” in their existing fabric as the Italian architect Giancarlo de Carlo explained. De Carlo, like Bruno Zevi, was concerned with the dense urban agglomerations of existing European cities. While Zevi termed these “organic”, De Carlo referred to them as “objective”. They both, however, refused to turn their backs on the historic city, viewing it as “organic” not in the sense of naturalism, but in the sense of being a “natural” and concrete embodiment of its historic context.

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248 This notion was explicitly expressed in the early 50s by Jaap Bakema and later informed the work of other Team 10 members. See Jaap Bakema, “The Relationship Between Man and Things,” in Tyrwhitt, Sert and Rogers, CIAM 8, 67. And Eric Mumford, The CIAM Discourse on Urbanism, 1928–1960, (Cambridge, Massachusetts: The MIT Press, 2002), 214. Although Team 10 and the politics of its formation expressed the most forthright critique of CIAM and the Functional City credo, it is important to realize that Team 10 was in no way homogenous and was in fact comprised of architects producing extremely varied projects.

249 This sense of the “organic” was also understood by Italian art historian Giulio Carlo Argan (1909-1992): “Argan associated the ‘organic’ with ‘a dynamic law of reality’ and ‘everything that to us is concrete, established and historical: our experience in the broadest sense’, and the ‘abstract’ with an attitude that ‘stands outside the world of
Karmi’s observation that “the city is a group of neighborhoods, the neighborhoods a group of streets, the streets a group of houses, and the houses a group of rooms” was elaborated on by Peter and Alison Smithson. The extended analogy between the different components of a house, street, neighborhood and city, and their physical and social interrelatedness was likewise reminiscent of Aldo van Eyck’s thinking. Another influential figure in this respect was the American architect Louis I. Kahn who had established the analogy between city planning and house planning in his work. Karmi’s emphasis on connectivity and the transitions between different urban situations informed the practices and writings of many architects seeking a return to lost urban values although in a modern, non-nostalgic sense, one engaged with the structural principles constituting urban fabrics not their historical styles. His work at this point, however, was not yet as immersed in the bravado of modern transport systems as concurrent work elsewhere tended to be. A reflection of this tendency emerged later in his proposal for Ashdod City Center and HaBessor City (Hebrew: Ir HaBessor, העיר ה بصورة) which will be discussed in the following section of this chapter (4.2).

The emphasis on linkage and interrelatedness, on the weaving of places for movement and those for human association occupying architects working in other parts of the world, came as a sheer opposite to the concept of the individual and autonomous architectural artifact, detached from a wider network or fabric of living. The Smithsons’ critique of Le Corbusier’s Unité d'habitation in Marseille (1947-1952) is perhaps the best-known example, although isolation was hardly what Le Corbusier had in mind when planning the project. Although the

appearances and challenges them, that sees itself as an absolute condition outside experience or nature, in other words outside history.” Benedict Zucchi, Giancarlo De Carlo, (Oxford: Butterworth Architecture, 1992), 11.

250 See Oscar Stonorov and Louis Kahn, You and Your Neighborhood: A Primer for Neighborhood Planning, (New York: Revere Copper and Brass, 1944). One of the illustrations was titled “The Plan of the City Is Like the Plan of a House”.

251 One example in which the component of transportation systems as a key element in generating new architectural forms, expanding the practice of architecture to assume very large scales and a new infrastructural magnitude, could be seen in Kenzo Tange’s Master Plan for Tokyo Bay (1960). Its genesis, as argued by Reyner Banham in Megastructure can be traced back to Le Corbusier’s Fort l’Empereur in Algiers (1931), and further back to the Futurist drawings by Antonio Sant’Elia (1914).
project’s potent image exerted a great deal of influence on architectural imagination in the 1950s, it also elicited criticism for what was perceived to be its isolation and rigidity. This criticism informed the Smithson’s “study grille” – the form of standard presentation in CIAM after the meeting in Bergamo – at CIAM 9 at Aix-en-Provence termed “Urban Reidentification”, in which they sought to counteract what they perceived to be the isolated community of the Unité by proposing analysis and planning based on a “hierarchy of human association”.

The need for places for gathering and celebration, as Karmi phrased it, regardless of technological progress and communication advancements, was a trans-historic human requirement and resonated with efforts elsewhere which sought to reinstate the profession’s commitment to creating public space. Karmi’s emphasis on the need to conceive places as distinct spaces nonetheless connected to one another drew his work close to that of Kahn’s.252 The concept of a city’s ‘rooms’ and the question of making each ‘room’ spatially distinct while also part of a ‘group of rooms’ echoed Kahn’s search for the relationships between these elements, which he sought to apply to all scales of architectural artifacts: the home, the institution, the neighborhood and the city. Kahn, in fact, defined the architectural plan as a “society of rooms” and the architect’s task as ultimately revolving around the question of how to create such an association.253 Karmi’s analogical depiction of the city as a “texture of arteries, fibers and structures and points of attraction, creating places and passages” was akin to Kahn’s “architecture of connection,” though Karmi may have adopted Smithson’s stress on circulation more than Kahn’s insistence on proximity or tangency. Kahn’s painstaking attunement to the ancillary

252 Kahn was also influential to the generation of architects comprising Team 10 – the younger generation of “adversaries” challenging CIAM’s old guard. One of the core issues of conflict between the “older” and “younger” CIAM members involved the charter of functional urbanism, and it was the desire to find a modern “texture of a city” mirroring its “dynamic functional integration” that informed the discourse in the 1950s.

spaces tying together the primal spaces of a home, institution or city, affording moments of negotiation and mediation between the different practices taking place in each particular space, but also combining them together into a coherent whole, carried a profound social and cultural message. Its formal implementation can certainly be discerned in Karmi’s work and writing at this moment.  

Karmi-Meltzer-Karmi developed an elongated type for Merkaz Hanegev, reaching the length of 250 meters. They employed an A section in which two parallel separate wards converged at an internal apex (Pl. 4.1 01,02). The building conflated an interior street flanked by commercial uses on the ground floor, offices at second level, topped by apartments of various sizes on the upper levels. The internal street was eighteen meters in width, three storeys high in the center and gradually receded to the height of one storey at the margins. Natural light and ventilation filtered in through the open-ended edges as well as from modular skylights above. Six vertical stairs located in the center of the interiorized street and along the buildings’ edges accommodated the vertical movement through the different levels. Longitudinal movement was afforded mainly through the street at ground level and along the upper galleries overlooking it (Pl. 4.1 03,04).

The internalized street was one of the more intriguing components of the structure and was not part of the formal brief. Karmi explained it as a response to challenging climatic conditions and insisted that the temperatures measured in it were lower than those measured outdoors. To this criterion he added an emphatic formal description on materiality, plasticity, shadow and light. His text alternated from the very concrete to the effusive and cryptic. It  

254 Dov Karmi first met Louis Kahn in a Housing Conference in Mexico in the early 1950s. They remained in touch and Ram Karmi’s independent work drew from Kahn’s projects. Ram Karmi would later also appraise Kahn’s design for the Hurva Synagogue in Jerusalem and consult with Kahn on his proposals for a new city in the South of Israel – Ir Habesor.

resonated with Le Corbusier’s famous maxim: “architecture is the masterly, correct and magnificent play of masses brought together in light.” The internal street or as Karmi referred to it, the bazaar, was

...the building’s spinal cord, a structure of shadow. The coolness of the desert night enters through its openings, is absorbed in its columns and niches and preserved during the scorching heat of day, which does not penetrate through the width of the enclosing layers. The temperature is always six degrees lower than measured in any other shaded space in the area. Its unique form continues the urban bazaar tradition along the Mediterranean Basin, which emanated from the cave – the first shelter man found in the desert. In the sand, under the scorching sun, man walks through exposed and glaring vast spaces, his eyes blinded from the sun, the heat beating upon him. The cave is a refuge – a cool and dim interior, in which man can rest, rejuvenate and re-embark upon his journey... Thus the structure tries to find an architectural expression to the dialogue between man and the nature of the desert in which he settled. Every settlement resists nature but is also a form of adaptation to it.

Karmi’s did not neglect social and cultural aspects when explaining the motivation for the project in Beersheba. This was also explicit in his use of the term bazaar.

But the structure is not only a cave to which one turns to escape the exterior, it is also a place to which one goes upon exiting his house, it is a kind of neighborhood ‘room’, creating a comfortable frame for exterior urban life unique to the area (life in the coffee shops, along the sidewalks and in the public squares).

It was Karmi’s first recognizable attempt (though arguably not a successful one) to produce a localized, alternative modern urban typology, one engaged with public space as an urban ingredient reflecting the dynamic, multifarious character of city life, inherently linked with and performing as a condition for the varied practices of dwelling. The attention to the street’s qualitative dimensions as a cohesive architectural ingredient, around which and in which cultural

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258 Ibid.
and social practices could develop, was a striking antithesis to Israel’s previous planning policies, specifically those advocated for the New Towns. These aforementioned guidelines, elaborated on in chapter 3, were predicated on dispersion, low density, use-zoning and in many cases on rather quantifiable and statistical criteria for planning, evidently also a reflection of the difficult material conditions present during the country’s first years of independence and the pressing necessity to produce vast numbers of housing units.

The advocacy for the street as the quintessential public space was part of a wider post-war return to what was understood to be an indispensable urban component in which a variety of urban practices would unfold. Around the time of Karmi’s years at the A.A., the street and “life in the street” inspired architects in England seeking ways to revitalize urban design by incorporating an interpretation of the traditional street into their proposals. The Smithsons were key figures in formulating this concept, and Peter Smithson also taught at the A.A. in the early 1950s when Karmi was pursuing his architectural education there.259

However varied the perception and projection of street life may have been in these cases, the shared renewed appreciation for street life and the inspiration drawn from the street in architectural proposals in the 1950s was also informed by the deterioration of the traditional street as a viable vessel for urban social and cultural practices. Many of the aforementioned architects underscored that excessive vehicular movement obstructed the street’s ability to perform as a meaningful public space. Although the Smithsons’ intention was to supplant this essential urban

259 The Smithsons’ collaborator and friend, photographer Nigel Henderson, played a central role in focusing attention to social practices that take place in the street. Henderson’s work and the work of his wife Judith Stephen, an anthropologist conducting studies of working-class neighborhoods, contributed to the consolidation of the Smithsons’ ethical approach to design and informed their presentation in CIAM 9. Yet, unlike Karmi’s depiction of Tel Aviv’s eminent Dizengoff Street and Rothschild Boulevard, which both had a profound air of bourgeois culture, Henderson’s evocative images captured the spontaneous informal “life in the streets” of London’s Bethnal Green and suggested the more melancholic photographs of the Depression-era by American artists Walker Evans and Dorthea Lang. It is worth keeping in mind that the rather doleful expression in the British case was chronologically closer to the end of the war, while Karmi’s project was on the drawing board in the late 50s, and his text was published in the mid 60s at a moment when Israel’s rationing policy was waning (officially cancelled in 1959) and the government’s commitment to development engendered economic growth.
ingredient with a revised version separated and safeguarded from the detriments of high velocity transport systems, their pedestrianized proposals, albeit replete with imagery implying their performance as a rich and diversified social platform, would largely remain an unfulfilled declaration of purpose, essentially because they were meta-interventions detached from a vigorous and vivacious urban fabric. This strict separation between vehicle and pedestrian came close to an obsession and, in many cases, largely pointed to some practitioners fervent preoccupation with modern transportation systems as almost exclusive factors in generating urban planning. It is within this context that Alexander Klein proposed a new urban typology for Israel’s new cities (Pl. 4.1 05). In his text *Man and the City*, an excerpt of which was published in 1954 in *Handasa WeAdrikhalut* – the Israeli Engineers’ and Architects’ Association’s journal, Klein identified the decline of the traditional street and square as taking place during the first half of the 19th century. Technological and economic forces – the expansion of cities and increase of mechanical vehicular travel, he wrote, encumbered upon the city’s vital urban spaces which were forced to relinquish their social, economic and cultural value for the sake of becoming contrivances in a system of traffic control. Congested streets due to motorized vehicle increase rendered permanent chaos. As he has written:

*Bearing in mind the increase in vehicular traffic, the streets will be unable to service both man and the machine simultaneously, as they each require different kinds of services... the serene squares of the past have transformed to traffic junctions, and harmonious streets deteriorated into vehicular traffic routes overborne with road signs and traffic lights. The street is, therefore, no longer a valued constituent in the material and cultural life of the city dweller. We must disengage from the traditional concept of the street, extricate the pedestrian from the chaos of mechanical traffic, and create a separate domain for his movement and for public life in general.*

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260 See Alison and Peter Smithson’s competition entries to Golden Lane (1952) and Huptstadt Berlin with Peter Sigmond (1957).
261 Alexander Klein, “Man and the City,” *Handasa WeAdrikhalut* 13, (May-June 1954), 11-14 [Hebrew]. The published text was an excerpt from his longer text published in honor of his seventy fifth birthday.
Dismissing the means applied hitherto to alleviating the pedestrian’s distress (as above or under-ground passageways, cul-de-sacs etc.) and predicated on his fastidious albeit mechanical analytical studies (including accounts on vehicular versus pedestrian speed) Klein advocated for a comprehensive reconceptualization not only of the street as a singular urban component but also of the entire structural rational of the existing “urban organism”.

Our cities today are incapable of uniting their vast populations into a social unit. There is nothing in their current structure and layout that may instill in their residents a sense of home or a feeling of pride. Likewise, the Garden City type — although it achieved various improvements — cannot provide the appropriate solution as the extent of traffic problems could not have been predicted at the time of their appearance.262

Klein proposed a new urban type, and although he differed from Garden City principles, his recommendations bore similarities with the Garden City rationale. To begin with, he maintained a limitation on the size of the new city (physical and demographic, the desired amount of residents ranging between 50,000 and 100,000) by girdling it, not with a green belt but by a circumferential belt including production and distribution facilities as well as the city’s areas of commerce. This, he maintained, would facilitate inter-city transportation of goods, and support the prevention of heavy vehicular traffic in the city itself. On this point Klein, like others at this moment, propagated a complete separation between pedestrians and vehicles, this time extending beyond that of the neighborhood unit to include the entire domain of the city. His suggested configuration included two scrupulously separated systems; one for pedestrians in the form of ramified walkways emanating from a “central green space”, the other, in the form of ancillary vehicular routes, leading to the central area from a circumferential main road. Public institutions — administrative, cultural, educational, and leisure facilities — would be located in this center green. Around them and within walking distance, Klein located the dwelling units. In place of a

262 Ibid.
centripetal configuration Klein advocated a centrifugal one, supplanting what he saw as the existing city’s overcrowded, cumbersome and over polluted center, burdened by traffic congestion and high density building, with a pedestrianized and hygienically improved “micro climate”. In essence his proposal, like that of Howard’s schematic Garden City, appealed to a centered civic domain with a public park. Howard’s Crystal Palace of commerce was relocated to the very margins of Klein’s city, which was more adamantly resolute about separating pedestrian and vehicular movement. Klein’s separation of transportation systems and zones for dwelling did not involve the direct influence of transport systems on forging new forms of architecture, nor did it suggest the correction of city maladies through establishing pedestrianized artificial ground plateaus excluding all automobiles from the public raised areas. It did, however, point to the general direction many architects were taking in pursuit of complete separation between people and automobiles. Already present in Merkaz Hanegev this notion would consequently become a fundamental generating principle in Karmi’s work in the 1960s and 1970s.

Although the pedestrian street certainly formed the heart of Merkaz Hanegev, Karmi emphasized the project’s synthetic nature. While the building offered a distinct public space, it was also intended as a connection to additional public spaces. Karmi underscored the building’s relational purpose by designating it a linking device between two existing neighborhoods and between these neighborhoods and the city’s main street. In this respect, the project sought to avoid, rhetorically at least, some of the self-engaged inclinations figures like the Smithsons found in the paradigmatic Unité and those of later poetic architectural schemes propounding total human communities in “floating cities” with impermeable external envelopes. In theory, Merkaz Hanegev tried to relate to the conditions already present on site and serve as a means to improve them. Although it offered a structure in which the different functions of a city

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263 I have in mind Archigram’s The Walking City (1964) as well as Hans Hollein’s Aircraft Carrier projects (1964). Although these projects were rather rhetorical and poetic propositions unlike Merkaz Hanegev.
converged, thus arguably operating as a city in a capsule – complete and self-contained – Karmi explicitly noted that it was principally “open ended” intended to relate to its surroundings:

The building in Beersheba is a neighborhood’s main street and an entrance gate to two neighborhoods – neighborhoods B and D. It begins with the main street in town, which includes the centers of administration, science (the center for Negev Research), health (hospitals), and religion (the synagogue), and ends in a road connecting the small centers of neighborhoods B and D, in which the inter-neighborhood bus transportation takes place. The building creates an urban artery, a kind of ‘bazaar’, in which stores, coffee shops, supermarkets, a cinema, a culture center, offices and dwelling units co-exist. In contrast to other buildings, this building is not independent in itself, but was planned for future expansion: in its essence it is a component of more elaborate complexes which may add on to it and extend from it...²⁶⁴ (Pl. 4.1 06,07).

Aside from its intended performance as a linking mechanism between the different parts of the dispersed, low-density town and along with its being a “microcosm for urban activity,” the building was also to perform as a connecting device between civic public spaces intended to be planned by Karmi-Meltzer-Karmi as well (Pl. 4.1 08,09,11,13). These spaces were to accommodate the residents of Merkaz Hanegev and those of adjacent neighborhoods. They were also conceived as opportunities for connection, joints from which a further infrastructural network of buildings could develop (Pl. 4.1 06,07). Whether as a component in a single building or conceived as a linking device in an extendable urban pattern, public space gained conceptual precedence in what had previously been forsaken by Israeli state planning.

The building thus constitutes a linear axis of movement. The route links social focal points, two centers in which many urban functions are assembled. The route is intended for pedestrians only: it exits from a square in which a cinema, supermarket and high-rise building are situated and leads to a square consisting of a culture center, auditoriums, gallery spaces and a youth club. The flow characterizing the pedestrian route (as in a hallway connecting two rooms in a flat) ceases in the two squares, which are places for relaxation. These squares perform as joints in a living organism: they are intersections from which pedestrian movement can ramify to ancillary routes. They are convenient and natural connecting points for growth and addition of new neighborhoods, focal

connecting centers for the future urban system. As the branches of a tree ramify and become thinner with each point of distribution, so the additional joints perform as transitions from one architectural dimension to the next, for instance, the threshold of an apartment – the place in which one transitions from the family to the close knit neighborhood – the staircase, and the internal courtyard. Likewise, the doorstep of an apartment building is a threshold in which man passes from the dimension of necessary contacts to the wider neighborhood. The next threshold may be the bus stop, the grocery store, the kiosk, the newspaper stand, which create a transition to the neighborhood’s main street.265

The idea of connection and linkage thus referred to a range of scales. On the scale of a greater territory, it was manifest in the project’s designation as the functional and symbolic center of the Negev region at a moment in which a declared national goal aimed to settle this south territory as well as establish transportation routes facilitating its connection to the rest of Israel.266 This was explicitly expressed in Arieh Sharon’s Physical Planning in Israel (1951) and was a fundamental component in constructing national ideology much earlier (Pl. 3.1 02). It was also a main factor in former Ottoman and British geopolitics in which Beersheba was considered a strategic center on the way to the Sinai Peninsula. These colonial forces exerted considerable effort in extending railways through the town.267

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265 Ibid., 53-54.
266 The settlement of the Negev became a primal national objective, conditioning, as Prime Minister Ben-Gurion put it, Israel’s economic and political security. In 1953, after his first resignation from the Prime Minister’s office, Ben-Gurion resettled in Kibbutz Sde Boker in the Negev, practicing his declared “conquering of the wilderness” dictum.
267 Beersheba, the Negev’s capital, had already been a strategic center for the Ottoman Empire, specifically during World War I when Djemal Pasha tried to extend the railway tracks from Afula (where they connected to the Hejaz Railway) down through Beersheba to the Sinai Peninsula in order to reach and block British movement through the Suez Canal. Following General Allenby’s troops’ movement north along the shore from Egypt, their conquest of Rafah, and fall of the Ottoman Empire, the British also constructed a railway from Rafah to Beersheba. In 1918 Beersheba was thus connected to Lod (Hebrew: Lod, Arabic: al-Ludd, Greco-Latin: Lydda) to the north through the Ottoman railway and to Rafah to the southeast through the British railway. The British consequently updated the Ottoman railway line from Beersheba to Lod (Lod was where other tracks converged, notably with the very first railway line from Jaffa to Jerusalem which was constructed in 1892). Following the economic crisis of 1929, the use of the railway system waned, and in the late 40s connections to neighboring countries discontinued as railways in these territories were nationalized. The Ottomans turned British, transcontinental railway system was further struck in the events of June 1946 when the Israeli “Strike Forces” (Hebrew: Palmach, established in 1941), the elite fighting brigade of the Hagannah (the Israeli paramilitary organization during the British Mandate), bombed 11 bridges throughout Palestine in their underground battle against British imperialism. Following the Declaration of Independence in 1948, the railway system was transferred from the British Mandate to the Israeli government’s operation company – Israel Railways (Hebrew: Rakevet Yisrael, subordinate to the ministry of transport. The railway lines were gradually put back into service. The line to Beersheba was finally opened in 1956, extending from Lod to Beersheba,
In addition to Beersheba’s connection to the northern parts of Israel through railway transportation, intensive road building marked the first decade following independence. Between 1948 and 1958 new roads were paved along Israel’s north-south and east-west axes, nearly doubling their length. Among the new paved roads were the one connecting Tel Aviv and Beersheba and the one from Beersheba to the Dead Sea, Mitzpe Ramon and Arava Highway. The road from Tel Aviv to Beersheba shortened the length of the journey by 20 kilometers. It was constructed by Solel-Boneh, the Histadrut’s (the General Organization of Workers in the Land of Israel) construction company, and was the longest road paved after Independence. In the road’s inauguration ceremony, Beersheba Mayor, David Tuviyahu, had noted:

_The Negev towns owe a triple thanks to the state for paving the road. For many of Beersheba’s workers paving the road provided their first source of employment in Israel. It transformed Beersheba’s economic state. One who resides in Beersheba now feels as though he is in the center of the country._

Minister of Labor, Golda Meyerson (Meir), later Israel’s 4th Prime Minister (1969-1974), maintained that paving the road to Beersheba helped develop the county, support the ingathering of the exiles and supply work to the new immigrants who now became building citizens. For many, working on the road was their first encounter with Israel and it is related to the earlier paving enterprise in the valley and the Galilee which paved the way to settlement... this road is not mere concrete and asphalt, it will pave the way to housing and water supply...Our goal is population dispersal across the entire country, this road is a means to that end...  

Although “Negev Center” may have been somewhat hyperbolic, the appellation reflected this national goal, and the building was indeed conceived on a regional scale as including public functions, which were potentially destined to draw visitors and users from across the city and converging with the track from Tel Aviv, thereby facilitating passenger transportation from Tel Aviv to Beersheba. It slightly diverted from the original Ottoman route and was finally extended further south to Dimona in the mid 60s.

268 "The Road from Faluja to Beersheba has been inaugurated,” Davar, (July 1951). [Hebrew].

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region. It was also an indication of architecture’s rising self-confidence and the profession’s steady move towards vast and complicated structures of unprecedented dimensions.

At a different scale the project was also envisioned as restoring a sense of urban texture to Beersheba’s existing neighborhoods by functionally and plastically performing as a bonding agent between them. It represented a moment in the architectural profession in which attention was redirected to both the primary public spaces of a town as well as to its auxiliary spaces of connection. On the scale of the individual building, the project was an outright critique of functional zoning, aspiring to reinstate the rich fabric of the city in which a range of functions co-exist and overlap. Linkage and association were afforded through functional diversity within the structure itself. To this end, the building sought not only to compile different types and sizes of dwelling units with commercial, cultural and civic uses, but also to conceive the dwelling unit as principally engaged in and intertwined with these uses. Thus, the pursuit of connections was also pertinent to the scale of the individual dwelling unit and its means of association to what lay beyond its threshold. The defined boundaries between the unit and its surroundings were oversimplified in preceding planning initiatives. Dispersion, unqualified repetition, the abstracted vacancies of “filler” green spaces and, tectonically, the employment of the lean wall consisting of structure and in-fill paid little attention to the architectural border. In Karmi-Meltzer-Karmi’s proposal these practices were supplanted by a layered and thickened sense of spatial transitions. The transition from the realm of the private home to that of the shared public domain became encrusted with a gradation of in-between spaces, negotiating between the two extremes. A particular case in point was the upper galleries connecting the apartments, also linking them visually to the internalized street below. These elevated passages, collateral to the main bazaar route, were semi private – semi public, affording the residents a mediating zone between the enclosure of apartments and exposure of street life (Pl. 4.1 03,04). The alcove-like internal
stairways, shared only by two apartments on each level were another instance of mediating between public and private space (Pl. 4.1 14,15,16).

As Karmi had noted, the project was conceived as “a component of more elaborate complexes.” It pushed the conspicuously large “horizontal skyscrapers” built in Haifa by the Weintraub-Mansfeld partnership, and Beersheba by the Yasky-Alexandroni team (both described in chapter 3) a step further. Merkaz Hanegev was conceived as more than just a large building conflating different unit types. It was explicitly envisioned as a constituent of pre-existing and yet-to-be-constructed buildings, entailing reproducibility and ramification. Architecture assumed larger dimensions and moved closer to city planning as the tendency to regard the solution to the problem of the future city as predominantly architectural began to gain momentum.

4.2 Architecture, City; Object, Territory. 1960s.

Giving shape to the notions of reproducibility extendibility and ramification, Merkaz Hanegev corresponded to ideas set forth a number of years later by figures like Fumihiko Maki (1964) and Ralph Wilcoxon (1968) investigating and consequently outlining the concept of megastructure.269 Maki and Wilcoxon offered a definition of the term which pertained to a large infrastructural, dominating and permanent frame in which different and transient functions were housed,270 a theme characterizing many works at the time, some of which were conspicuously

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270 Reyner Banham, *Megastructure, Urban Futures of the Recent Past*, (New York: Harper & Row Publishers, 1976). Wilcoxon’s characterization, as Banham explained, expanded Maki’s with two additional classifications; to Maki’s account that megastuctures are made possible by “present day technology”, Wilcoxon more specifically discerned the question of modularity, touching on architecture’s processes of production and construction, therefore, also including such notions as “plug-ins” and “clip-ons” and the related theme of the structural framework’s long lifespan relative to the shorter lifespan of its add-on components. The second divergence from Maki lay in the idea of unlimited extension.
different. They stretched the gamut from Tange’s prodigious Tokyo Bay project (1960), Candilis-Josic-Woods’ Open University in Berlin (1963-1973), Vanden Broek and Bakema’s proposal for Tel-Aviv city center (1962), the Smithsons’ suggested project for Kuwait City (1968-72), the Metabolists’ frame and capsule proposals and many more. Contemporary texts also testified to architecture’s declared infrastructural intentions and its reflection on and somewhat confident differentiation between long-term versus short-term processes, hence the distinction between infrastructure and infill. In Banham’s historiography the infrastructural and permanent constituents were associated with public functions and public spaces, while the add and clip-ons were tied to the more short-term, variable, and flexible private domain. Some cases revealed an infatuation with transportation and network systems. These were identified as having longer life spans and, therefore, appropriate for determining and potentially generating the identifiable substructure, which would be able to sustain a solid and decipherable image amidst the ongoing alteration of its transitory parts. A forceful image perpetuating a fascination with transportation systems was Kahn’s Reformed Traffic Circulation Project for Philadelphia (1952). But certainly the inspiration went back to Corbusier’s formidable Fort l’Empereur in Algiers (1931) with its impressive infrastructuralcombined highway competing only with the surrounding hills. As Banham noted, an equally compelling inspiration went further back to the Futurists’ enchantment with mechanization and urban and inter-urban mechanical transport systems portrayed in Sant’Elia’s drawings (1914). Kenzo Tange’s formidable Tokyo Bay Plan (1959) was likewise immersed in an ardent exaltation of high velocity transport systems, which seem to have been the most seminal and certainly most striking ingredient in the plan.

The logical inference from this definition appealed to some strains in modern architecture, which claimed the profession’s assertion over the total environment.

In the heyday of megastructures in the 60s, the concept also drew upon utopian schemes, which advocated for their users’ freedom and mobility as well as for their creative and ludic interaction with their malleable surroundings. Yona Friedman’s “non-determining” *Mobile Architecture* (1958) was one example of the French visionary and experimental *Urbanism Spetial* and the fantastic, phantasmagoric *New Babylon* by Constant Nieuwenhuys brought megastructural thinking close to *Unitary Urbanism*, a concept informing the work of the Situationists, in which a synthesis of arts and technology was applied for the planning of new urban environments. These strains of utopian urban settings evoked a nomadic sense of dwelling and relied on ideas of chance, temporality and uncertainty. They called for an improvisational architecture, instantly transformable and, in Constant’s case, extendable ad infinitum. In some of these projects formal considerations were avoided, perpetuating a common notion that was often ascribed to these structures, in which an apparent disorder or disinterest in formal geometry exemplified an “architecture of indifference”. In such cases, architecture became an entertainment venue in which the idea was the event, not the object containing it.

These experimental, experiential and nomadic overtones were expressed in typically light, metal structures capable of sustaining their users’ materially unspecified interventions.

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272 Unitary Urbanism rejected the rational, functional and abstracted form of urbanism. It aimed its criticism against the Athens Charter and called for a fusion of function and art in a way that would incorporate art back into the city rather than explore it in closed and isolated settings. Play, free association and exploration were understood to be fundamental to life along with the functional provision for material demands. Another source of influence was Johan Huizinga with his book *Homo Ludens; a study of the play-element in culture*, (Boston: Beacon Press, 1955). Original Dutch edition was published in 1938.


274 This was why, as Mark Wigley, explained, Constant employed a specifically non-technical, non-detailed mode of representation. Though mechanization is a seminal ingredient in New Babylon (after all it is the mechanized buried world that frees humans above and enables them to perform a life of leisure and creativity) it is employed abstractly. Most of Constant’s drawings were “neither images of the mechanism nor images of the life going on within it. They operate in some indeterminate zone between, where both the machine and the life become shadowy, as if inviting the viewer or the future inhabitant to complete the picture.” Constant also dematerialized the structure, which according to Wigley is “not meant to be experienced as such. He only represents it with some realism in one exceptional view from the outside… there is a sense of realism yet no clear image is offered in the end… the vast structure must ultimately be effaced in the name of the inscriptions upon it.” See Mark Wigley, “Paper, Scissors, Blur,” in Catherine De Zegher and Mark Wigley eds. *The Activist Drawing*, (New York: The Drawing Center NY and Cambridge, Massachusetts: The MIT Press, 2001).
They of course bore no resemblance to Merkaz Hanegev, which had a conspicuously stationary, monolithic, béton brut appearance. Proposing a sedentary architecture was, arguably, much desired by a society laden with a Diasporic complex, motivated by a desire to establish and visibly demonstrate its roots in a land effectively foreign to it. Nomadic typology was an anathema to a state directing its efforts to assert its presence. Unlike nomadic structures, Merkaz Hanegev was literally and emphatically grounded in the soil, marking Karmi’s emphasis on the vertical dimension of the building, physically and symbolically embedded in its locale. This difference indicated the particularity of the Israeli interpretation of megastructures despite some similarities it shared with the type elsewhere. To this end, and like his contemporaries in the megastructure tradition in other parts of the world, Karmi drew upon vernacular architecture maintaining that the typological source behind his search for a new viable urban structure in Beersheba was that of indigenous Arab villages (Pl. 4.2 17). For Israeli architects, the indigenous villages represented an unmediated connection to the land, one they sought to attain by applying modern procedures. As Karmi has written:

*Let us compare our urban landscape to that of the Arab village. The Arab village is in harmony with its setting, it is ‘at home’. Its houses cling to each other, protecting each other from the sun, heat and dust. The shadowy narrow alleys create a shelter for the pedestrians and the rapid and strong wind penetrating through them (as in a Venturi effect) takes place during all hours of the day. The walls are made of stone, their openings small. The interior of the house is always cool and through the small deep window, in which one can sit, light gently permeates into the dim and cooled interior.*

*The structure in Beersheba does not wish to emulate the form of the Arab village, but to translate, with modern technology and new materials, values and patterns which have been guiding principles in all structures built in the region throughout different times – structures of shadow standing in the glare of light.*

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275 These issues will be further elaborated on in chapter 6.
276 Interview with Ada Karmi, July 2014.
277 At this point in Ram Karmi’s career there was no relapse to past forms and his architectural vocabulary was devoid of sentimentalism. There was no discrepancy between his use of modern construction techniques and their formal outcome. Later in the 1960s this tectonic approach would be replaced by an “uncritical regionalism”, when his projects subsequently placed an increased value on representational aspects. See Alona Nitzan Shifman, “Seizing Locality in Jerusalem,” in Nezar Alsayyad ed., *The End of Tradition*, (London and New York: Routledge, 2004), 231-257.
The light and the dark shadow responding to it, emphasize the objects’ three
dimensionality relinquishing their color and texture. That is why the building in
Beersheba lacks a smooth, flat two-dimensional façade, shrouded in a texture of
sprayed stucco, precast elements and moveable screens (characteristic of the Tel
Aviv building); the building has no ‘façade’ it is a form made of one material
(concrete) the complex, disassembled and sliced form of which lets light and
shadow shape its contour. In our region, the plastic emphasis and abstraction
were always the way for situating buildings in light.

We know that Mediterranean architecture was always made of one material, the
Assyrian and Persian brick, the ancient Greek marble, the Arab stone and
whitewash which almost completely abrogated materiality and emphasized the
three dimensionality of the form. The form fractured in depth accentuates the
small units (dwelling, shops etc.) Thus a hierarchy of size is created from man to
the entire building.

Light and shadow constitute polar opposites. Because urban life is also
comprised of a multiplicity of functions, which are always contrasted to one
another, its vitality is expressed in the moment of their concentration. In urban
life, there is a need for extreme variety, and the conflict between light and
shadow, existing in every phenomenon – artistic, plastic or social, is justified.
Our sunlight does not dissolve by its adjacent shadow; on the contrary, the one
emphasizes and strengthens the other, as they jointly constitute a single organic
unit.

An effort has been made here to express many distinct urban functions in a single
building, and to find for each of them its own expression.278

The greater part of Karmi’s reference to the Arab village may have fallen into a
formalistic trap, reifying a complex human artifact which evolved as a response to social and
cultural practices not only natural climatic conditions. Yet his appeal to vernacular architecture
was also predicated on other qualities as the text also indicated. Because vernacular villages were
extendable, adaptable, lacked simple geometric form, but were nevertheless legible as an overall
image, they were particularly influential for architects whose work was immersed in
megastructural thinking. Maki’s referral to the Italian hill-towns, Candilis-Josic-Woods’
inspiration from the North African Shanty Towns, and van-Eyck’s study of the Dogan are cases

(1966).
in point.279 The idea of the city as a single organic entity, which in the megastructural case was transformed into a single building in a single and temporally compressed design process, seemed to earn its validity from these “organic” precedents. There was no call for an atavistic relapse to handicraft and traditional construction techniques, however. The modern city as a “single work of art” was predicated on modern fabrication processes.

The ideas of extendibility and ramification were not limited to a certain material or structural rationale; rather, they traversed tectonic boundaries. Merkaz Hanegev, it should be stressed, was almost entirely built of exposed concrete the only exception being the exposed brick in the upper galleries and plastered finishes along the walls of the internal stairs. The crude finish of the concrete was undifferentiated, the only variation appearing in the verticality or horizontality of the wood boards comprising the concrete casts, which were, evidently, mostly vertical.280 The idea of structurally and materially differentiating between the permanent and the temporary components, between “fixes” and “transients”, public and private, or the idea of expressing the structure had no bearing on the project. Merkaz Hanegev consigned its megastructural propensities to its intended future reproducibility as well as to the obvious characteristics of size and conflation of diverse functions.

Aside from the diverse materials employed in the construction of megastructures, their formal and compositional range was likewise diverse. The formal laxity, typically informing the more utopian schemes, was in many ways analogous to the emerging a-formal, anti-aesthetic in the arts. The work of Jackson Pollock exhibited in the Venice Biennale in 1950 and Jean Dubuffet’s art brut were among the examples pointing to an assault on the classical theories of

Gamma Group, Morocco (Bodiansky, Candilis, Kennedy, Piot, Wodds, Echouchard, Godefroy, Beraud) “The Moroccan Habitat, or Habitat of the Greater Number” Grid panel from CIAM 9, 1953.
Aldo van Eyck, *The Child The City and the Artist*.
280 Interview with Ada Karmi, July 2014.
composition, measure and proportion. They overthrew the predominance of classical forms in the creation and reception of art and had a profound influence on many architects who tried to grapple with the notion of relinquishing “good form”, revealing what Banham defined as a “topological” approach to design.\(^{281}\) “Topology”, one of Banham’s more obscure and difficult concepts, represented an alternative thinking to modernist urban design. It presupposed a preformal configuration in which classical ideas of composition had no bearing. Influenced from painting, it reflected a different kind of geometrical composition, one focused on infrastructural thinking. Form became matrix. Architecture was no longer focused on finite forms but was entrusted with providing a substrate from which other formal situations may develop. The web patterns that emerged in the work of Candilis, Josic and Woods as a structural base with an adaptable infill were cases in point. These alternative formal propositions were indeed a decisive moment in the Smithsons’ career as well. Their competition entries for Sheffield University (1953) and the Hauptstadt Berlin plan with Peter Sigmond (1957-8) reflected this change of course. For a practice, which began, according to Banham with what he saw as a Miesian and Wittkowerian/Neo-Palladian influence,\(^{282}\) this was a noticeable change in program.

Karmi’s sketches and his elaboration on expansion and ramification bore a speciously comparable anti formal stance. Yet, this apparent formal leniency was not at all implemented in the part of the project actually realized. The built outcome was in fact entrenched in formal, not to say Beaux-Arts, academic principles. Karmi employed a strict axial relationship between the public spaces on either end of the internal street, and the project’s geometric rigor was also manifest in the rhythmic articulation of the compartmentalized apartments on the upper levels as


\(^{282}\) See for example their project for the Hunstanton Secondary School in Norfolk, England completed in 1954. Rudolph Wittkower’s Architectural Principles in the Age of Humanism (1949) was extremely influential on architects at the time of its publication. Not only did it elucidate the theories of proportion and composition in the Renaissance, it also affected contemporary readings and reassessments of early modern architecture. Banham acknowledged Wittkower’s book as particularly important for architects in the post war years in The New Brutalism – Ethic or Aesthetic (1966).
well as in the regularity of the momentous columns and triangular girders along the internal street, which also bore a symmetrical section (Pl. 4.1 01,03). It would not be a misnomer to deem Ram Karmi the most formally inclined architect among his Israeli contemporaries. Intricate spatial arabesques would eventually overrun his entire oeuvre.

Built a few years later and bearing a somewhat comparable structural syntax was the Brunswick Center in London by Patrick Hodgkinson (1964-1974), who was Karmi’s classmate at the Architectural Association. Like Merkaz Hanegev, the Brunswick Center located in Bloomsbury was a rare mixed-use megastructure. In 1972 Theo Crosby acknowledged it as such, maintaining that it was “perhaps the first built example of the idea of the urban megastructure – a building that is a city, rather than being merely a component in a city.” Unlike its Israeli counterpart, however, it was initially a private venture, and when the development company ran into a cash flow crisis a section of the project was diverted for public housing. In both cases an elongated pedestrianized public space flanked by multiple uses structured the ensemble. Merkaz Hanegev’s internal support columns were amplified in Hodgkinson’s project. He employed a stepped section for the wards, eight bays of which were omitted on the façade facing Brunswick Square, revealing momentous columns and forming a grand portico through which one entered the elevated piazza from the Square.

Although the projects shared formal similarities, their urban context was completely different. A dense urban fabric surrounded the Brunswick Center, which occupied an entire block. The main entrance to its piazza was directly accessible from Bernard Street as was the side entrance from Brunswick Square. Aside from the prodigious twin towers flanking the entrances and stairs, the height of its volumes largely coincided with existing buildings. The public piazza

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accommodated the residents in the project as well as those in its vicinity and became another urban component enmeshed in the existing city fabric. In Beersheba, there was no preceding dense urban fabric at the project’s location. The building itself and its intended infrastructural multiplicative goals were supposed to create one. It remains, therefore, rather difficult to understand why Karmi insisted on a single building when the aim was to establish public life in an urban situation. The effort “to express many distinct urban functions in a single building, and to find for each of them its own expression” exposed an irresolvable contradiction in Karmi’s initial effort. The accent on consolidating different functions into a single building eventually weakened the sense of rich diversity.

Another classmate of Karmi and Hodgkinson’s at the Architectural Association was Neave Brown, the planner of the Alexandra Road Estate (1968-1978) who offered an additional rendition to the concept of megastructure. Unlike Karmi and Hodgkinson’s projects, Brown’s public housing did not incorporate commercial uses but did include services accommodating its 520 residential units: a community center, a school, a youth club and parks. Extending the length of 300 meters, and slightly curved to form a crescent shape it consisted of three parallel blocks, the highest of which was seven-storeys bordering the adjacent West Coast Main Line. The complex’s underground parking was located beneath this mass and the longitudinal spaces between the blocks formed a pedestrian public route and parkland. Brown’s Ziggurat high-density structures created an elongated public route on to which the variously sized apartments faced. The north and highest block consisted of an invariable section, while the middle block was intermittently cut to provide access from the pedestrian route to the park. Alexandra Road Estate, the Brunswick Center and Merkaz Hanegev provided a coherent image predicated on fixed boundaries and a central public space, but they equally avoided the tectonic differentiation between frame and capsule, between the structure and its variable parts. Years later, the
architectural historian Kenneth Frampton – another classmate of Karmi, Hodgkinson and Brown’s – made a useful distinction between megastructure and megaform specifically addressing this issue. As he has written:

*For me the main difference between the two resides in the emphasis placed on the overall form and its intrinsic spatial order as opposed to the expressivity of the structure so that while megaform may display certain megastructural characteristics, the large scale manifestation and expression of its intrinsic structure is not its primary significance. What is more pertinent in the case of the megaform is the topographic, horizontal thrust of its overall profile together with the programmatic place-creating character of its intrinsic program.*

In Merkaz Hanegev, the only part of the project actually built, was conceived as a single vertebra in a much larger system. This megastructural notion of further “branching out” ultimately pushed architects to immeasurable scales and unrealizable objectives, the totality of which was a priori deemed to remain unfeasible. Merkaz Hanegev’s megastructural aims remained such on paper. The partially accomplished structure became a relic of a principally unrealizable idea. The two public spaces planned on both sides of the longitudinal street were never built, nor was the structure ever expanded or reproduced. It remained a corridor of connection leading from somewhere to nowhere, an amputated organ in a system paradoxically purposed as a complex of “texture of arteries, fibers, structures and points of attraction”. The local press was inexorably hostile. “Failure! A center for housing, commercial uses and office space, which was supposed to offer a planning breakthrough for the future, has failed and serves as an example of ‘how not to build’.” The article and accompanying photos revealed a desolate building. Apartments were converted to office space and commercial uses were shut down. Shattered windows and a derelict public space rendered Merkaz Hanegev a dilapidated and deserted venue, its incomplete materialization only emphasizing its rapidly escalating state of

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285 Kenneth Frampton, *Megaform as Urban Landscape*, (University of Illinois at Urbana Champaign, School of Architecture, 2010), 11.
decay. Arguably, the architecture could have been partially absolved for this outcome. Municipal legislation and local lack of enforcement ignored the spillover of one use into another. Less than a decade after its completion, the desire to create a more propitious urban typology, indeed a new urban texture, was supplanted by an image of ruins of a past-imagined future. The vision of a multifarious, animated public space could not have been more ironic.

The new scales proposed by such megastructures, exemplified by Merkaz Hanegev on paper, revealed that architecture had argued itself into a corner. Nevertheless, the tendency to regard the solution to the problem of the future city as predominantly architectural became common currency in the 1960s in Israel. Karmi’s office was assiduously producing sweeping plans in which the differentiation between building and city was consciously effaced. The post 1967 Six-Day-War mentality was equally conducive in perpetuating a building culture that considered expansive state sponsored construction and overwhelming building scales convincingly realizable.

As a contributing editor in John Donat’s *World Architecture 4 (1967)*, Ram Karmi published a version of his earlier text on Merkaz Hanegev published in *Kav* which appeared in 1966, but his opening editorial title suggested that the weight given to architecture and the extent of its projects reached new dimensions. In *City-Building, Building-City* Karmi maintained that modern buildings equipped with their technological conveniences offered a level of comfort far exceeding that provided by the historic street or piazza now that they had been both “overtaken and engulfed by the motor car.” Peter Smithson’s influence can certainly be discerned in this somewhat portentous statement. Fully invested in the conviction that modern buildings are completely self-sufficient, and that the car had “pushed into the buildings all those functions which the street and piazza previously provided”, Karmi contended that it was the task of

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architecture to “link together the internal spaces of modern buildings” combining their self-contained units into an integrated whole “where modern man can enjoy the delights and comforts of the machine age, separated and removed from the highway, which will then be left free for the intense demands of serving and servicing the life inside…” Citing the Smithson’s Economist building in London (1959-1964), Karmi appraised its separation between pedestrian and vehicle by creating an elevated public platform, but his prospects were far more monumental compared with a project conforming to the existing London fabric.

Let us break down this isolation of modern buildings and create a larger pattern of integrated, connected, internal places in order to achieve the new ‘togetherness’ and human contact which we are seeking. Thus the city becomes a building: the building becomes a city...

The nuanced analogy between the single building and the city, which had existed since the Renaissance, became literal. More precisely, it was replaced by a planning methodology, which deemed the building and the city indistinguishable. Karmi set a task falling nothing short of actually creating an entire urban territory in which architecture presided over the urban experience consigning the conception of a city to largely formal terms. His buildings, to paraphrase Theo Crosby’s reading of the Brunswick Center, were no longer in the city. They were the city, or at least a representation of some of its elements.

Karmi’s plans for the Central Area in Ashdod, also published in Donat’s anthology, were aligned with this new mission. The Israeli government and Ashdod Company initiated a public competition for planning Ashdod City Center in 1965. Practices in Israel as well as from France, Holland, Sweden and the United States participated in the competition the judges of which were Israel’s finance minister, the minister of internal affairs, the general managers for Israel’s Land

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287 Ibid., 108.
288 Ibid.
Administration (Minhal Mekarka'ei Yisrael), representatives from the housing department, delegates of Ashdod Company, and chairman of Ashdod Local Council. The professional judges included professor Alon from the Technion, I.M. Pei from the United States, Georges Candilis from France and three Israeli architects: Itzhak Perlstein, Shmuel Shaked, and Y. Dash. The first prize was awarded to a French practice; the second prize was awarded to Johannes Van den Broek and Jacob Berend (Jaap) Bakema's practice. Karmi’s firm was awarded third prize. Although never materialized, his plans reflected the new territorial, land forming objectives his work began to assume (Pl. 4.2 18,19).

Ashdod is situated on the coast of Israel, about 30 kilometers south of Tel Aviv. It was established in 1956 and incorporated as a city in 1968. The construction of its modern port began in 1961. It was inaugurated in 1963 replacing the ports of Jaffa and Tel Aviv, which were finally shut down in 1965. Karmi was asked to design the nucleus of the city at the junction of two main roads. At the highest point on the site 40 meters above sea level he located the center square, a “monumental complex” above the central bus station. He “crowned” it with tall buildings “through which the major functions of the city center would have a clear connection with the sea.” At the center of the elevated platform around the “agora” he located the town hall, public offices and law courts (Pl. 4.2 20) Three projecting axes defined the square. One led to the sea, one to the port, and the third led east to a university and sports center and terminated in the

A similar notion was also evident in Van den Broek and Bakema’s other competition entry in Israel. In the Plan for Tel Aviv (1963), an elongated assemblage of buildings qua serpent traversed the area of Manshiyya reaching the Mediterranean shore. Manshiyya was one of Jaffa’s residential neighborhoods left abandoned after the first Arab-Israeli War. It was located on the border of Jaffa and Tel Aviv. The initiation of the international competition came a decade after the unification of Jaffa and Tel Aviv and was meant not only to actually unify the two previously separate municipal jurisdictions but represent this unification in a sweeping megastructure housing the unified city’s new business district and culminating in a new civic center housing City Hall. The initiative somewhat revealed the social complexities that followed slum clearance only to have a more political significance in the Israeli case. For a detailed description and critique of this process see: Alona Nitzan Shiftan, “A New Israel Hyphenating with the Old,” in Maoz Azaryahu and S. Ilan Troen, eds., Tel-Aviv the First Century, Visions, Design, Actuality, (Indianapolis: Indiana University Press, 2012), 373-405.

railway station. The axis leading to the sea was designated the “entertainment mall” with its culture center, clubs and cinemas. It terminated in an Island intended for hotels and casinos. Karmi termed the second northward axis the “social and business mall”, and the third axis directing eastward was conceived as an enclosed bazaar and shopping mall. The mall leading west and the mall leading north framed the site’s natural valley in which a park was incorporated. Employing the Smithson’s differentiation between “fixes” and “transients” Karmi had maintained:

_The two malls framing the park have all ‘fixed’ non-expanding buildings (cinemas, theatres, concert hall, etc.) sited on the concrete platform promenade, while all ‘growth’ buildings (museums, libraries, clubs, health centers, etc.) can expand freely into the park._

Karmi’s differentiation between “fixes” and “transients” remains obscure, but regardless of the building types he assigned to each category, the intension to form a recognizable public core bolstered by stable public amenities and institutions remains intact. Permanence was associated with the public spaces of the square and malls while extendibility, growth and change were accommodated in the looser formal articulation in the parkland. The idea of growth and change, noticeably, was not incorporated into the infrastructural system, itself resolutely immutable. Permanence did not structure change; it transferred it to a different location.

The malls were conceived as hybrid spaces and contained commercial uses “giving them that extra life and kick.” They were “shielded” by densely packed stepped housing blocks, which followed the natural sloping terrain, reducing the need for site manipulation and sand removal to a minimum. As Karmi has written:

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291 Ibid.
292 Ibid.
Heights and densities of the housing reduce towards the boundaries of the site, becoming lowest and least dense at the perimeter. In the first stage the housing area is of the highest density and concentration, forming a complete core from the very beginning.293

The predominance of public space – the core of the city – became conspicuously monumental. In Karmi’s proposal, the overtly formal articulation of public space was an indispensable requirement for a city and its primary component. The core bore a symbolic, functional and structural meaning for Karmi, which his ziggurat scheme was meant to formally emphasize.294 Intending to revitalize the public domain’s social, economic and cultural life, which had been dislocated by the motor vehicle, Karmi also implemented a complete separation between pedestrians and transport systems (Pl. 4.2 23,24). The elevated city center was motor-free, and the road system at ground level was planned to never intercept urban life above. A similar segregation was employed within the housing blocks, in which internal courtyards contained playgrounds kindergartens and nurseries (Pl. 4.2 25).

Karmi explained that he patterned the road system according to Hook New Town, which was designed by the architects of the London County Council (1961-62). Like Center City Ashdod, Hook at Hampshire was never built (Pl. 4.2 26). The GLC’s subsequent plans for Thamesmead, submitted in 1965, elaborated similar principles. A noticeable resemblance existed between Karmi’s visual presentation for Center City Ashdod and sketches presented for Hook New Town. Like their British counterpart, the images indicated that the concept of megastructure in Israel had never been tied to visionary architecture but was more akin to the bold products of municipal or state planning bureaucracies. Ground shifting, infrastructural building – which had initially informed utopian architecture – ultimately held sway for very large institutions and

293 Ibid.
294 Although this hierarchical appeal would be rejected by other megastructuralist contending in the lines of Christopher Alexander that “A City is not a Tree”. See Christopher Alexander, “A City is not a Tree,” Architectural Forum, (April 1965), 58-62.
government-sponsored projects where free market pressures and property ownership played a marginal role at best. In the coming years, state initiatives, municipal undertakings and large institutional projects for universities would comprise Karmi’s megastructure clientele.

Aside from the effort to re-conceptualize public space Center City Ashdod as urban megastructure was a reification of architecture’s territorial turn. The aim to link not only urban facilities but also those related to the greater region (urban sea shore, park land, national and regional highways and metropolitan transport terminals) was an instance of such display. Karmi’s plan to link Center City Ashdod to the sea, as well as his intention to minimize land removal on site reflected a sense of territorial thinking, which aimed to raise awareness of the project’s natural context. It remains debatable though whether such an appreciation would have been attainable given the monumentality of the proposed work. Nevertheless, the new mega-scale cum territorial intervention evokes Vittorio Gregotti contemporaneous thinking.²⁹⁵ By resisting the supposed autonomy of the architectural object Gregotti sought to place it – situate it – in a geographical and socio-cultural reality recorded throughout the landscape’s history. Influenced by his mentor, Ernesto Nathan Rogers’ theory of architettura preexistenti, which Rogers had laid out in numerous texts published in Casabella in the 1950s, Gregotti proposed a re-engagement with the environment’s anthropogeographical history. This telling portmanteau, advocating for an elevated awareness of architecture’s man-made and natural settings was a response to displacement and alienation, which had been associated with post war modern construction throughout Italy, and specifically the abrasive land speculation of the Italian countryside. In Gregotti’s texts a heightened consciousness of the environment’s anthropogeographical history

²⁹⁵ Gregotti’s texts in Edilizia Moderna were later developed into his book I’l territorio dell’architettura (1966) excerpts of which were translated into English much later. There is no indication by Karmi that he knew the texts at that time. Nevertheless, Karmi most likely knew Gregotti through the latter’s editorial work in Casabella.
was congruous with safeguarding it from speculative profit driven impositions. The recorded layers of this history was awaiting revelation through architectural intervention, indicating that the landscape was not only an objective given but also a historically determined and continuously recreated topography, a theme also present in Aldo Rossi’s sense of locus. Where his Italian contemporaries suggested the built urban fabric as a recorded typological history for architectural analysis (Aldo Rossi), Gregotti insisted that every landscape was a signifying environment, tracing past decisions and events.

Though the regional scope of Karmi’s project may have implied similarities with Gregotti’s objectives, noticeable differences existed in their territorial works. As manifest in Gregotti’s project for the new University of Calabria at Cosenza (1973-1986), the landscape not only constituted the groundwork for the project’s overall configuration, it also became an essential material for the architectural project. It was put to work, so to speak, as the awareness of it was highly present throughout the project. The undulating terrain regulated the depths of the separate buildings, which were threaded together along an elongated three-tiered bridge. The bridge, including an access road and service ducts over an open pedestrian route, provided the approach to the separate components of the institution and afforded remarkable views of the Crati Valley. As Joseph Rykwert has noted, even the aerial perspective of the project, which later became a typical mode of presentation in Gregotti’s later work, “was a way of thinking visually about a project in the context of its territory.”

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297 See Gregotti’s later text expanding the idea of “history as project material” in Vittorio Gregotti, Inside Architecture, (Massachusetts: MIT Press, 1996), 69.

298 Interestingly in “The Form of the Territory” he also acknowledged the fact that the dessert was the only exception to this argument.

Although most of Karmi’s megastructural projects were never realized, there is a noticeable interiorized and self-engaged sense of their spaces, an impression which was enhanced by the projects’ visual presentations. Although the models and plans for Center City Ashdod suggested circumstances for a potential synergy between the man-made and natural environment, Karmi’s perspective drawings were incompatible with this possibility and depicted its opposite. In them, exorbitant architectural impositions seem to supersede the natural leading to the project’s alienation from it (4.2 18-23). This leads to another difference between the two territorial cases considered here. For Gregotti, although territorial in extent, the architectural intervention had a syncopated, measured expression. Rejecting architecture’s conciliation and assimilation with the environment, he advocated for juxtaposition, which he later articulated as “noncoincidence with the site” in which, he believed, the quality of the architecture lay.300 This led him to stress the intervention’s limits, which were later incorporated into his writing On Precision.301 In other words, a commitment to the site required a subtle intervention in and departure from it reflecting differences in the pursuit of creative integration. In Center City Ashdod precision did not characterize the territorial expanse. Excess and formal exuberance became a rhetorically displayed tour de force. This was not an instance of a territorial participation in the city or a measured intervention in its landscape. Center City Ashdod was a city in miniature and a landscape in and of itself.

Another case in which a spine with concentrated social and commercial activities on a segregated pedestrian platform appeared as a generic structuring device was the design for Ir HaBessor (HaBessor City). In the early 1960s Dov Karmi and Ram Karmi collaborated with Avraham Yasky and Amnon Alexandroni on plans for a new city east of Beersheba in the Bessor region located in the northern Negev. It marked a continuation of national plans from the early

301 Ibid., 45-50.
1950s, seeking the development of the Negev region and the facilitation of its linkage to the center and north of Israel. In this respect it was correlated with national plans to extend the coastal road leading from Haifa through Tel Aviv and Ashdod all the way south to Eilat, Israel’s southern city at the tip of the Gulf of Aquaba, which led to the Red Sea. Three routes were planned to link the north of Israel with its south. The middle route passed through Beersheba, the coastal route was to pass through Ir HaBessor, and the eastern route was planned to pass through another new town – Arad. The three towns shared the same latitude and were located along Israel’s widest section. The plans for Ir Habessor were never executed. Arad was ultimately built.\footnote{The rationale behind the planning of the city was revealed in a discussion on New Towns chaired by Artur Glikson and published in *Handasa WeAdrikhalut* in 1964. [Hebrew]}\footnote{Avrahm Yasky in “Discussion on New Towns,” *Handasa WeAdrikhalut* 22, No. 3, (June 1964), 3 [Hebrew].}

The architects maintained that a noticeable “ribbon development” between Israel’s coastal cities was beginning to crystallize in which significant inter-city connections appeared. Thus, aside from being a concentric center within its own region, Ir HaBessor was conceived as another component in Israel’s coastal urban development. The architects attributed a great deal of importance to the association and linkage along this successive strip.

*We thought it was essential to link the city with this ribbon development, even though physically it is only manifested in the phenomenon of the highway. We thought it was critical that already at the first stage of settlement, the new residents would feel this connection, feel that they are not secluded in a remote region but part of this linear ribbon development.*

Although Ir HaBessor was initially planned for 30 to 50 thousand residents, it was conceived as part of a much larger system. Potentially traversing trans-regional even trans-national boundaries, the architects contended that if it were not for Israel’s political situation, the ribbon development would have potentially extended beyond Israel’s national territory north to
Beirut, Turkey and possibly Europe, and south to Egypt and beyond. Planning was no longer conceived as only a local intervention. It began to consider and assume far greater objectives.

The city’s location within the region was predicated on its proximity to the extended coastal road, but it was also derived from the location of two other small towns in the eastern part of the region, Netivot and Ofakim. Topographical conditions also affected the decision. The area was largely flat aside from a marked groove in which HaBessor River was located. The architects also noted an archeological mound. As Yasky explained: “We sought, therefore, a point between the national road and the mound, because that was the only thing we could relate to.”

Ir HaBessor was an entirely new artifact having no preceding urban fabric to rely upon. As Glikson had earlier maintained regarding some of the Israeli New Towns, it faced the difficulty of having to plan a city “in a single stroke.” According to Yasky, the planning mission, therefore, was twofold; it had to create “a growing and expanding organism, which would also be a complete whole in its early stages...” The concept of a predominant concentric core around which rings of a city accrue and the exhausted idea of the neighboring units each with its own smaller core were replaced by a linear model. The planners thought a concentric core would not accommodate an expanding city, which would ultimately outgrow it, and the multiple smaller neighborhood cores were considered inadequate for the vigor of urban life. The linear/vector model was considered a unified urban image facilitating growth and expansion for a city whose projected first demographic count would amount to ten thousand residents, later reaching a population, which could amount to five times that. As in Karmi’s plans for Center City Ashdod, the intention was to create an urban center, which would maintain its predominance as a legible figure and function as a viable urban core from the very beginning stages of the city’s development.

304 Ibid.
The scheme germinated from the “regional center” intended “to be alive 24 hours a day” containing the main transportation services, the central bus station, hotels, cinemas, large shops and government offices. It was planned to expand axially into an elongated town center – the “strip core” – containing smaller shops, cafes, schools and housing.\footnote{In the original scheme the city developed east of the regional center toward the Bessor groove and archeological mound “since Egypt lies between the sea and Bessor the growth should occur in the direction of the Bessor vadi.” Industrial zones for textile and industrial agriculture were located west of the city, but due to west wind and concern about malodorous air moving through the town the scheme was ultimately flipped. See Karmi’s letter to Louis Kahn. Karmi Archive.} The regional center marked the intersection between the national coastal highway and other regional roads although a change in level was intended “to provide for free movement through the city” (Pl. 4.2 27).\footnote{See Karmi’s letter to Louis Kahn, p. 8. Karmi Archive.} Land reserves on either side were planned to accommodate the industrial zone and further east the scheme included sport facilities, a hotel district and additional housing blocks (Pl. 4.2 28,29). The national coastal highway traversed the plan perpendicularly separating the housing districts from the industrial zones. Elevated public passageways, which would extend into the strip core, tied the two parts of the city back together.

The elongated core measuring approximately 100 meters in width, the ultimate length of which would not exceed 2.5 kilometers, was planned for pedestrians only. It was the city’s backbone parts of which were hoisted above ground level. It consisted of office buildings, schools, cinemas, culture centers, shops, sport facilities, squares, tribunes and gardens (Pl. 4.2 30). Stepped housing blocks shielded its enclosed spaces forming covered arcades providing the “necessary shaded area and a fixed scale and character to one side of the axis.” On the other side the architects proposed more leniency for “free development that need and circumstance determine”.\footnote{See Karmi’s letter to Louis Kahn, p. 7. Karmi Archive.} The strip was subdivided into lengths of 200-250 meters in between which “reliefs” in the housing blocks along the axis would appear in the form of open squares with shops and cafes. The squares marked a transitioning point; the housing flanking the strip would
change sides alternately after each square. They also performed as joints from which pedestrian routes extended perpendicularly toward the city’s housing units. In other versions the housing blocks on the axis turned a ninety-degree angle extending toward the dwelling areas.

What remains constant throughout the proposals is a strict separation between pedestrian and vehicular movement. The only points along the elongated city center where the two would have potentially converged took place at the periphery of the squares. A hierarchical road system was incorporated into the plan, precluding vehicular movement within the housing units as well. These typically occupied entire blocks up to 500 meters long but retained central pedestrian passageways, which regularly transformed into enclosed courtyards, each containing a kindergarten and some shops. Another scheme suggested maintaining the courtyards but transferring the pedestrian passageways to the boundaries of the blocks where they would be raised above the road (Pl. 4.2 27). The primary school accommodating the entire housing unit was situated at the far edge of the block, and secondary schools were located in the town’s central strip.

The pedestrianized elongated city center with its mix-use program and spatially varying public spaces was conceived as a total topography. The prospect of constructing an entire scenery – essentially an artificial landform – had been broached by the architects in response to what they considered “a monotonous setting in which the city had nothing to relate to: it cannot lean on a hill, it has no open view to the sea, and even the river is not a real river.” The lack of identity attributed to Israel’s New Towns built in the 1950s, which, according to Yasky, looked alike at least in respect to their man-made features, further emphasized the need to establish distinctive features within the man-made parts of the new city. Since the architects argued that nature did not provide distinguishing features to which the city could relate, and a preexisting urban condition
was not available, forging the image of the city had to rely upon the immanent forms of the new city itself. The city was required to create its own man-made nature. As Yasky noted:

*In the case of monotonous surroundings we thought the city ought to be an image in the landscape, and there was no option to open it up to a green view because that too was non existent... it would be possible to rely upon a small amount of planned nature, man-made, but not on nature in the broader sense of the word...*

*Our conclusion was to plan an enclosed city, a city surrounded by a wall with a clear boundary: this is where the flat land ends and where the man-made environment begins; a clear confrontation between the planned man-made artifacts and the rather desolate and entirely dull open landscape.*

The plan was an embodiment of Karmi’s observation that at one time the historic city was “an organic and autarkic structure: a defined interior enclosed by a wall beyond which existed an exterior space”, however inaccurate that assertion actually was in its disregard of the environs of the historic city and the broad ecological structure it maintained with its surrounding territories. Ir HaBessor was an attempt to reinstate the city’s formal cohesiveness in light of urban disintegration in Israel’s more immediate past. The breath of the plan but, more specifically, the extent to which architecture was employed to provide a total topography (reflecting the dissolved boundary between architecture and city planning as well as landscape planning) begged the question of whether such a case of architectural potency could provide the remedies for urban desolation. It pointed to the problematic shift between the concepts of a master plan as a guiding precept, to its unrelenting formal determinism, essentially interpreting the city as the work of a single author. This begged the question of whether it was at all reasonable to have one or even

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308 Avraham Yasky in “Discussion on New Towns,” *Handasa WeAdrikhalut* 22, No. 3, (June 1964), 3. [Hebrew]
309 Yet, as critics of Karmi’s generation have patently observed, “organic” or “natural” cities (which were not necessarily products of the distant past) were man-made artifacts, which had materialized over a long period of time “acquiring the patina of life,” which basically implied a certain level of adaptability and change throughout their existence while still maintaining a certain identifiable structural rationale. Ir HaBessor but even more so, Central City Ashdod would correspondingly be referred to as “artificial cities”, “deliberately created by designers and planners” essentially required to temporally compress a historic process by offering architecture as an instant means toward establishing a cohesive and coherent urban fabric. I am referring here to Christopher Alexander “A City is not a Tree,” *Architectural Forum* (April 1965), 58-62.
two architectural practices offer such overarching indomitable models. As Banham had poignantly asked regarding megastructures:

... Is it humanly credible that one man, or one design team, can genuinely conceive a single unified architectural system that can serve all the needs of a growing city for the first half-century or so of its life?310

The megastructure likely to be most associated with the building-as-city notion in Israel was Karmi’s project for Tel Aviv’s new central bus station. In the mid 1960s the Tel Aviv municipality collaborated with local developer and construction contractor Aryeh Piltz and members of the cooperative transport companies “Egged” and “Dan” to jointly form a company leading to the construction of a new bus terminal for the city.311 The necessity to construct a new central station had already been raised a decade earlier, and although the initial intention was to expand the existing station built in 1942 in the Tel Aviv neighborhood of Neve Sha'an'an, the project ultimately shifted to another location within the neighborhood where Piltz had purchased lots on Levinski Street. The proclaimed rationale behind locating the station in Neve Sha’anan was to ameliorate and stimulate a neighborhood considered underdeveloped by offering a modern center for transportation and commerce.

Projects of this magnitude typically take time to materialize; discussion about the site’s location lasted more than a decade. After the cornerstone was laid in 1967, the project was halted between 1973 until construction resumed in 1989. Various reasons contributed to this 16 year gap some of which were lack of skilled construction workers, a shortage in steel and cement in the building industry, disputes over financing access roads, objections to land expropriation and later

311 The company Kikar Levinski with its main shareholders Aryeh Piltz and the cooperatives “Egged” and “Dan” was established to initiate and manage the construction of the new central station. Solel Boneh, the Histadrut’s construction company, which built the project, would also own shares. See the economic report “An ‘Egged’ Terminal for Half a Million Passengers Daily” Al Hamishmar (1968). [Hebrew]
Piltz’s company’s financial difficulties.\textsuperscript{312} From its inception in the mid 1950s until its final completion in 1994, Tel Aviv’s new central bus station changed locations, dimensions, programs, and investment teams. The project’s assigned architects were also replaced. Werner Joseph Wittkower and Nahum Zelkind’s partnership was appointed to draw plans for the expansion of the old terminal. After rejecting these plans Piltz turned to Ram Karmi in 1964. Their cooperation dated back to the El Al building (1958-1963) on Ben Yehuda Street which Karmi-Meltzer-Karmi planned for Piltz (Pl. 4.2 31) and also yielded the Hadar Daphna Buildings on King Shaul Boulevard for commercial and office space (completed in 1971). Ram Karmi Architects developed numerous proposals for the central bus station and they remained the project’s architects until its completion in 1994.\textsuperscript{313}

The first proposal included a mixed-use commercial and transport center above which Karmi placed stepped housing blocks, hotels and office space surrounding an enclosed garden. Most of the vehicular movement was placed underground. In later proposals the roof garden was omitted, high-rise office buildings were mounted on the station, and vehicular movement was split between underground levels for inner city transportation and upper levels for inter-city transportation placing commercial uses in the levels between. A five storey monumental central space flanked by commercial uses and surrounded by traffic rings structured the heart of the megastructure, which at different stages consisted of an interior bazaar, a museum, cinemas, auditoriums, a synagogue, shops, sport facilities and public parking.\textsuperscript{314} The lot intended for the project measured forty-two dunams. In total the structure was planned to include roughly two hundred thousand square meters.

\textsuperscript{313} \textit{The Labirynth, Ram Karmi and the Planning of the New Central Bus Station}, Eran Neuman curator, Tel Aviv University School of Architecture, Exhibition Booklet, 2013. [Hebrew]
Due to its extraordinary scale and complexity, the issued permit of 1968 included only the first four storeys. The intention was to begin construction and concurrently complete the upper levels. The forecast for the project’s completion was three years.\(^{315}\) It was inaugurated more than twenty-five years later. During the sixteen years in which the massive skeleton stood deserted amidst an existing city fabric, the “largest central bus station in the Middle East”\(^{316}\) a project with no perceivable precedent in the region became the city’s nightmare. Like many other grand megstructural plans, Tel Aviv’s central bus station was projected to deliver the newest and finest technology and architecture had to offer. Yet, the initial promise to bolster and invigorate the surrounding neighborhood by offering a mixed use center in which half a million passengers would traverse on a daily basis remained unfulfilled,\(^{317}\) and the assurance that it would improve conditions in Neve Sha’anan resulted in the neighborhood’s further deterioration. As Sharon Rotbard contended, it destroyed Neve Sha’anan’s fabric and cut off the neighborhood’s southern part. Zvi Efrat has also maintained that its construction destroyed a huge part of the city and its living fabric. “It was a product of ‘thinking big’ in the architecture of the 1960s and 1970s, the planning of megastructures which in retrospect created problematic places in Israel and in the rest of the world. [A manifestation] of excessively ambitious architects and developers who created buildings which were too large.” Michael Levin asserted that it was an example of how private developers had the capacity to drag municipalities into unfeasible adventures, a diagnosis also shared by Hubert Lu-Yon who claimed the project served interests of power, fortune and political benefits.\(^{318}\) Constructing “A Veritable City Under a Single Roof” indeed created a total environment – a microcosm with its own controlled microclimate. But the city under a single roof

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\(^{315}\) “The Construction of the Tel Aviv Central Bus Station is Expedited Because of…Recession,” Yediot Aharonot, (1967). [Hebrew]
had no affiliation to the actual city in which it was located and in fact impeded exchange and interface with its surrounding milieu. It was a physical receptacle to a non-existent living reality.

Paradoxically, the central public space so dominant in Karmi’s sectional drawings contradicted its initial purpose. The terminal’s public space, where Karmi envisioned people coming together and in which overlapping experiences and a variety of exchange practices were to take place, was denied of these fundamentally urban characteristics. The dissonance between the project’s projected use and the actual conditions on site, and the overindulgence in size and quantity rendered the project a farce. Public space without the public for whom it was intended was, to quote Rotbard, “like a Cambodian mine which keeps exploding even after thirty years.”


In 1959 Karmi’s text Mediterranean Architecture was published in the art and literature periodical Onot Hashana (See full in Appendix). It reflected Karmi’s search for regional references in an effort to extend and inflect a typically European importation of modern architecture. While the text resonated with earlier pursuits by a preceding generation of architects seeking to establish a modern vernacular (see chapter 1), it belonged to a specific moment in Israeli culture in which the Mediterranean region was broached as a viable source for constructing the new nation’s geocultural as well as geopolitical identity. The refocusing on Mediterranean architecture and the typologies it engendered as reflecting both local climatic conditions as well as certain social structures was, therefore, one facet of a general cultural atmosphere in which Karmi’s generation was immersed. Encompassing not only architecture but also other artistic mediums as well as linguistic concerns, it reflected the pursuit to establish a new national identity not through imported Western (often also referred to as Diasporic) references but through those
anchored in the actualities of the land and physical space. This geopolitical conception valued a nation’s “territorial history” and regarded it as constitutive to a people’s national consciousness.319

As mentioned in section 4.2, a turn to the territory as a foundational material for the architect informed Gregotti’s thinking followed by his published texts from the mid 1960s. Maintaining that the landscape was in fact the field of encounter between nature and culture thus marking it an “invaluable testimony of a culture,” Gregotti reflected on the large-scale human migrations of the post war period, which created a rift in this anthropogeographic structure, and considered Israel a particularly cogent case substantiating his thesis. As he has written:

This phenomenon is corroborated by the attitude of the Jewish people confronted with the problem of geographically structuring their homeland after centuries of waiting, during which time the idea of homeland had been interiorized to the point where it coincided more with the idea of History than with that of territory. This example demonstrates that the history of a territory should be considered as the fundamental support of its formal structure.320

Since Israel’s population was comprised of new immigrants, many of who came from European countries, European customs as well as a Jewish Diasporic heritage constituted their cultural background and symbolic repertoire. In architecture, Karmi maintained, this was manifest in the “importation” of a “European tone” into Israeli building. While Karmi acknowledged the benefits of such cross-cultural fertilization he also contended that European building techniques (such as the structural skeleton with a thin wall infill) were not appropriate for Israel’s local climatic conditions. He also argued that European customs and their corresponding spatial configurations were likewise not compatible with ways of living in the Mediterranean region.

319 Yaakov Shavit, From Hebrew To Canaanite, (Tel Aviv: Domino, 1984). [Hebrew]
Martin Buber had also written about the mystic connection between the people and the land. See Amnon Rubinstein, From Herzl to Rabin: the Changing Image of Zionism, (New York, Holmes & Meier Publishers, 2000).
European ways of life, he wrote, “lacked any affiliation to Eastern culture – the climate the
topography and the region’s fabric of life.”

Karmi’s turn to Mediterranean building typologies as a source for architectural
inspiration reflected a genuine appeal to construct an architecture more suitable to the material
constraints and opportunities in the region. It also carried a profound message. It stood for what
many cultural agents of his generation tried to achieve through aesthetic means – the construction
of a new national consciousness in the place in which it was understood to have developed, as
Karmi phrased it “a slow return to the place of origin”. In extreme cases, not uncommon in Israel
at the time, the construction of Israeliness entailed a separation from immediate but exilic
collective memory. Correspondingly, Israeli national identity – what members of the Canaanite
group and its affiliates promoted as Hebraic not Jewish – was severed from its Diasporic past and
identified in exchange with the land and its history.

Although relatively small in number and surreptitious in nature (their members typically
using pseudonyms in publications) the Canaanites exerted a great influence on Israeli culture
since their inception in 1939. They sought the establishment of a territorial-based nationhood
connected to the land and to the history of the diverse people living in it. Canaanite ideology
strictly opposed the reliance on Judaism as a parameter for the New Hebrew’s identity and sought
a revivalism that rejected the model of the “Diasporic wandering Jew” in favor of the Hebrew
inhabitants of “Kedem” (etymologically meaning East and ancient). This ancient Hebrew
tradition throughout the Fertile Crescent including its non-Jewish inhabitants formed the
Canaanites’ legacy fueling their search for an old/new cultural identity anchored in the
specificities and concreteness of the landscape and its history. This entailed a leap into and
idealization of an ancient history for the purpose of constructing a shared national ethos.

predicated on spatial territorial foundations not ethnic or religious ones. Although not specifically acknowledged by him as such, Karmi’s text resonated with such Canaanite narratives. His search for a typological foundation in *Mediterranean Architecture* was a means through which he sought to “nativise” the architecture of immigrants into an “authentic” architecture of Israelis.

Israel had always been situated on a cultural crossroad. The generation of the pioneers who constituted the hegemonic class of labor movements originated from European and Russian Jewry. Although they sought to create a national home for the Jews in Israel, liberated from their oppressive Diasporic past, many of them still conceived Israel as an extension of European culture. On the other hand, Israeli society post independence included immigrants from countries of the Maghreb and from the Middle East. This diversified foundation fomented Israel’s ongoing national identity struggle; were Israelis Westerners, Europeans, Orientals, Levantines, Canaanites? Further fueling its demographic diversity were Israeli Arabs who constituted fifteen percent of the population after 1948. Within this convoluted ethnic and sub-ethnic context with its accompanying multiplicity of cultures, the dialectical stance toward the East, which had informed early pre-state Zionist ideologies, reemerged in full force. The East had been conceived not only as the ancient origin of the Jewish people, but also envisaged as their destination toward national independence; however, along with its redemptive force, the conception of the East was also framed, as numerous historians have established, by an Orientalist mindset, in which a fear of the oriental “other” portrayed him as a threat to the Western Jew.

Turning to the Mediterranean Basin as a source for constructing national identity had already informed Zionist and Canaanite ideologies in the decades pre-independence. Although Zionism had mainly centered on consecrating land settlement delaying associations with the sea,

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322 These themes will be further developed in chapter 6.
some Zionist activists described the ancient Hebrews as a maritime and nautical force calling for a renewed association with the Mediterranean Basin. As historian David Ohana has maintained, the Canaanites, more than any other ideological faction, based their narrative on the Hebrews’ Mediterranean character and activities. Their intellectual fathers endeavored to give an Eastern dimension to Israeli identity and their principal ideologues regarded the sea an inherent part of its cultural infrastructure.\textsuperscript{323} More conventional voices in the Israeli political map also turned to this alternative. As Ohana has mentioned, Abba Eban, Israel’s ambassador to the United States in the 1950s and the country’s first minister of foreign affairs, also broached the Mediterranean outlet in order to strengthen certain cultural affinities and geopolitical relations. The Mediterranean, he argued, “is the only channel of intercourse between Israel and the rest of the world.” He considered Israel “not a Middle Eastern country but a Mediterranean country.”\textsuperscript{324} Critics later argued that advocates of the “Mediterranean option”\textsuperscript{325} like Eban represented voices in Israeli society, which sought to distance themselves from neighboring Arab countries and the Palestinian conflict by opening a route for broader cultural, economic and political exchanges with Europe. According to this approach, restoring an affiliation to the Mediterranean was intended to replace any associations, which Israel may have had with the Middle East.\textsuperscript{326}

Karmi’s references in \textit{Mediterranean Architecture} crossed ethnic boundaries, and his examples stretched the wider territories of the Levant. Instead of uncritically employing a supposedly modern universal canon (in actuality one never existed) and influenced by an appeal to shape a new architecture for Israel based on territorial and geographic considerations, his

\begin{footnotesize}
\begin{enumerate}
\item[\textsuperscript{323}] David, Ohana, \textit{The Origins of Israeli Mythology, Neither Canaanites nor Crusaders}, (New York: Cambridge University Press, 2012), 188- 190.
\item[\textsuperscript{325}] This phrasing is taken from David, Ohana, \textit{The Origins of Israeli Mythology, Neither Canaanites nor Crusaders}, (New York: Cambridge University Press, 2012).
\end{enumerate}
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advocacy for Mediterranean architecture (although his text also included examples further East in Mesopotamia) fostered another modernism – a synthetic architecture attuned to regional models. Karmi did not treat the Mediterranean as a homogeneous entity, nor was his text akin to the imperialistic parochial attempts to appropriate the region. Written at the dawn of the region’s postcolonial moment, his examples revealed the multiplicity of ethnic, religious, cultural and political programs of which the region was comprised and which historically gave rise to a range of its architectural models. For Karmi the ability to reassess and inflect modern architecture’s western rendition was essential for creating an architecture for Israel whose cultural and natural landscape differed from that of Western Europe. Through Mediterranean Architecture he sought a conceptual model in which a fusion of eastern and western cultures would unfold. The creative synthesis was not only spatial, blending influences from different territories, but temporal as well, proposing a modern architecture without relinquishing the discipline’s historical actuality. And while the techniques of the architecture he proposed may have been a derivative of the profession’s internal principles and tradition, the concreteness of its outcome was suggested to be a result of its specific location and circumstances.

Although the Mediterranean Basin was considered heterogeneous and polycentric Karmi also recognized an underlying unity amidst its diversity. While his approach represented and had the capacity to further cultivate a multi-cultural dialogue for Israel’s manifold cultures, in which cross-influences and diverse cultural exchanges could take place, he also established a common core running through the different inflections afforded by distinctive places and customs. In this respect, his text was a continuation of Posener’s typological argument and, in fact, also focused on the same courtyard type. Although Karmi mainly addressed the question of the individual ...

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dwelling unit, he established a structural principle, which would later reverberate in his institutional projects as well. As he has written:

*The idea implicit in the Mediterranean house’s plan is essentially a composition with a dominant centre accommodating the family’s varying needs.*

*A central room or courtyard was always a typical home’s centre. A ground floor planned according to a simple geometrical form – a rectangle or square, enabled the concentration with the aim of interiorizing life...*

In the mid 1960s, Karmi was commissioned by the Histadrut ‘Amal’ Vocational School and the Tel Aviv Department of Education to plan the Amal school in Tel Aviv (1965-1973). The School was also referred to as the Amal Lady Davis School, named after the American-Canadian philanthropist Henriette Marie Meyer-Davis who helped fund several of the organization’s schools. In the spirit of his typological analysis, the project’s composition included a dominant center, which structured the entire ensemble (Pl. 4.3 32). The project drawings were first published in John Donat’s *World Architecture 4* (1967) in which the central courtyard was proposed as the nucleolus of the school, one producing potential connections between its distinct parts as well as between its individual users. It was associated with the medieval piazza, which had “created the stage for spontaneous expression and activity of the inhabitants, linking many diverse activities into a single whole.” More specifically it was identified with Siena’s Piazza del Campo “the court built in the form of a semi circle with a sloping floor, enclosed by buildings of

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The focus and appreciation of the “dominant center”, or the symbolism of the center is discussed in Karstin Harries, The Ethical Function of Architecture, (1997; Cambrige, Massachusetts: The MIT Press, 2000), 198-200. Although modern architecture and modern city planning have typically abjured the formal center, it is argued by Harries that centers (formal but mostly symbolic) are required for dwelling and condition the experience of a coherent structure, city and region. Centers hold together a multitude and bare a “gathering power.”

329 The project was also published after completion in the following:

“Amal Vocational School; Students’ Dormitories - Ben Gurion University of the Negev, Beer Sheba”, Architekture und Wonnen, (February 1975).


two or three stories, which give shaded areas at all hours of the day.” Amplifying the idea of public space as a performance venue, the piazza was formed as an amphitheatre with built-in seating and a stage (Pl. 4.3 33). The institution’s more public functions: dining room, gymnasium as well as lecture halls and workshops surrounded the courtyard at ground level. The more secluded domain of the classrooms requiring quieter space occupied the upper stories. Mediating between the classrooms and the open courtyard below were loggia-like spaces performing triple functions: they were access routes to the classrooms, places for the students to congregate in not only pass-through, and balconies overlooking and consummating the performative public space below (Pl. 4.3 34,35).

The facilities were intended to accommodate the institution as well as perform as a community and culture center for local residents when classes were not in session. Positioned between two low-density residential neighborhoods the school’s internal courtyard, portions of which were sheltered beneath the enclosing structures, was therefore proposed as a public space for a variety of uses and users. Translated from the Mediterranean typology, the open nucleus was conceived as a shared space in which a sense of community would be fostered. In 1973 Architecture Plus titled its piece on the project “An Israeli School Shaped for Community”, indicating that an institution was not only responsible for its own members and program, but had an extended obligation toward its surrounding milieu. In this respect, it resonated, rhetorically at least, with the idea of the urban university, not secluded in a segregated domain but entrenched in the physical and social setting in which it was located.

Extending 13,500 square meters, with a rather robust and monumental formal syntax formed almost entirely from exposed concrete most of which was cast in situ, Karmi’s formal language celebrated the “architecture of shadow” with cavernous spaces, which seem to have

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been hollowed out from a monolithic mass rather than constructed by elemental components. Dov Karmi and Hever Architects’ sun breaker concrete screen mounted on the south facing façade of the Histadrut Head Quarters Building in Tel Aviv (completed in 1956) (Pl. 4.3 38,39) for which Dov Karmi received the Israel Rokach Prize in 1957 was magnified by Ram Karmi a decade later and integrated into the solid forms in the Amal school (Pl. 4.3 36,37). The motivation to mediate the sun’s potentially destructive effects and make the building more hospitable for its users became a demonstration of formal virtuosity, which was not uncommon for Karmi. An elaborate formal language with an abundance of complicated cast concrete detailing turned “the architecture of shadow” into an overshadowing principle.

Ironically, the “school shaped for community” was later associated with prisons, revealing its negative reception among users and neighbors.331 Its monumental forms and béton brut finishes were typically held responsible, no doubt one of the reasons the concrete was whitewashed a few years ago to the chagrin of local architects.332 Although béton brut elicited similar reactions in other parts of the world, attributing the project’s problematic reception to its material finishes, as conducive as they may have been to the penitentiary and bunker connotations, demands a more nuanced consideration. What seems to be the gist of the problem lies in the structural principle underlying such typologies as bunkers or prisons, in which the denial of associations with the surrounding environment is a principal objective. This is not to say that forms and materials play a secondary role in the perception of the architectural object, or that they are subordinate to a preliminary design concept. Rather, it suggests that their perception is intertwined with a basic foundational scheme in which, for example, layout and spatial relationships can be discerned. With this in mind, one is encouraged to question the viability of

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331 See Michael Yacobson’s blog Rear Window, Architecture and Ideology in a Local Disneyland, Visiting Schools 9, Ram Karmi’s Lady David School, in which the school users associated the building with both a penitentiary and bunker [Hebrew]
332 See Sharon Rotbard, “Whitewashed Concrete in Amal” in Mehonat Kria Babel Publishing’s internet site launched in 2004. [Hebrew]
the school’s public space as such, particularly in view of its declarative goals toward the surrounding neighborhoods. Its evocation of incarceration seems to be rooted in the failure to become a genuine public space for the publics it intended as its potential users. For whatever reasons, some of which may have been beyond the architect’s influence, the public space was confined to the public in the institution.

As work on the Amal School was nearing completion, Karmi’s practice received another commission to plan the student dorms in Ben Gurion University of the Negev, a public university established in 1969 in Beersheba (named after Israel’s first Prime Minister David Ben Gurion after his death in 1973). The project’s first stage was completed in 1976, the second stage in 1982. After Mediterranean Architecture was published, configurations with dominant centers characterized Karmi’s projects and were coupled with his institutional vision meant to consolidate a sense of community. The prospect of fostering a connection with the surrounding community was raised in this project as well: “The idea, also broached by the founders of the university as well as by Beersheba Mayor David Tuviyahu, was to create a cultural focal point which would also enrich the city’s life.”

The plan included an enclosed courtyard envisioned as an “urban square” and a range of uses intended to accommodate the students as well as residents of nearby neighborhoods (Pl. 4.3 40). Echoing the fortified medieval town surrounded by a wall, it was intended to create a discernable image against a disintegrating low-density urban fabric. As Karmi has recounted:

*We chose to create a configuration of buildings enclosed by a wall – a small city the foundations of which are deeply entrenched in the place – offering not only a shelter but also a legible hierarchy starting with the internal shared courtyard, through the surrounding porticos and on to the more private domain of the student apartments. Since the dorms were located outside the formal boundaries*

of the campus, we created along the periphery of the square areas for shops, clubs, culture and sport centers.\textsuperscript{334}

The executed plans included a partial realization of the initial plans. The circular configuration of buildings surrounding the open nucleus were planned to comprise three quarters of a circle. Since only the first stage of construction was ultimately realized, the built form constituted a semi-circle and the peripheral enclosing buildings were altogether omitted. Although the dominance and stability of the enclosed center may have been weakened as a consequence, the formal idea of the nucleus was maintained once the second stage of construction, however deviating again from the initial plans, was completed (Pl. 4.3 41).

As established in Karmi’s Mediterranean typology, and earlier in the Amal School, the nucleus was conceived as the heart of the ensemble as well as the cohesive constituent tying its distinct elements together. It was also envisioned as the most public component of the institution, a space not only facilitating student association and congregation but one also cultivating communal sentiment. In both the school and the dorms, the institution’s community was understood to take shape against this exterior space. Akin to the cloister, the dorms’ nucleus was comprised of an arcade enclosing an open space. In the later stage of construction additional colonnades, passages and smaller gardens were included, reflecting Karmi’s idea of providing a hierarchy of spaces embodying the range between the public and private domains, and addressing the possibility of living together while still preserving the individual’s need to retreat and be alone. As Karmi phrased it, “we tried to support the feeling of togetherness without hindering the need for privacy.”\textsuperscript{335} He tried to instantiate these ideas by articulating a range of transitional spaces, emanating from the nucleus to the secluded spaces of the students’ apartments (Pl. 4.3 42-44). Once again, Kahn’s influence and his appeal in his own projects for spaces of connection

\textsuperscript{334} Ibid., 138.
\textsuperscript{335} Ibid., 141.
could be discerned, although for Kahn this spatial articulation was a reification of his cultural institutional ideas in which mediating spaces were not only employed to facilitate the connection between the different functions within the institution but were conceived as spatial opportunities in which the users could choose to establish their level of public exposure and degree of participation in their new community.\footnote{336 I am referring here specifically to Sarah Williams Goldhagen’s reading of Kahn’s projects: the First Unitarian Church of Rochester in Rochester, New York (1959-1962), and the National Assembly Building in Dhaka, Bangladesh (1962-1983). In Sarah Williams Goldhagen, \textit{Louis Kahn’s Situated Modernism}, (New Haven: Yale University Press, 2001), 169-172.}

The association with Kahn is also noticeable in the reliance on historic architectural typologies and structural elements in an abstract manner. Karmi’s project recalled the courtyard, cloister and the ziggurat and employed architectural elements as the column and the arc but also stressed the distance from historic references. His béton brut cross-pillars had no base and four haunched beams turned at a 45-degree angle formed their capitals (Pl. 4.3 42,43). Offering an awareness of the profession’s tradition without succumbing to stylistic historicism, the project proposed an indirect evocation of past models by defamiliarizing their familiarity, revealing Karmi’s creative if lavish and structurally excessive formal virtuosity.

Semi-open corridors lined by arced openings along an inclined wall did not face the internal courtyard as they did in the school but framed the outer layer of the building directing one’s view to the extended horizon beyond the project. While Karmi’s typological analyses had focused on the interiorized and protected nucleus of Mediterranean architecture after which he created in the Amal School an introverted configuration the nucleus of which related to its natural surroundings by a vertical link to the sky, the configuration in the dorms suggested another means for structuring the relationship between the architectural artifact and nature. Although the building was a place-oriented architecture-as-enclave and was largely detached from its surrounding context, momentary awareness of what lay beyond the enclave walls was suggested
along its perimeter. Enclosing the nucleus by the buildings, obstructing longitudinal views by shaping and raising an artificial grass mound was then counterbalanced by the outside corridors, which referenced nature in the distance (Pl. 4.3 44).

Like the Amal school, the dorms at Beersheba University were associated in Israeli architectural consciousness with a fortified stronghold.\textsuperscript{337} The ziggurat structure marked a distinct territorial and formal mass and formed a strong silhouette against the backdrop of the arid region (Pl. 4.3 45). With its initial motivation to form a public space, which would also accommodate the residents of the town, it is hard to imagine a more contradictory result. The desire to create viable public spaces remained confined to a select public, marking the constitution of public space an obscured and unfulfilled objective in Karmi’s repertoire. It was doubtful whether the internal courtyards in the Amal School and the student dorms as well as the street-as-bazaar in Merkaz Hanegev presented sufficient interest to become a real pole of attraction, and a natural preferential point in one’s path through the interior of residential neighborhoods. In Karmi’s buildings at this moment, the aim to serve as a converging device for existing residential areas was contradicted by an architecture evoking images of fortifications. While reinforced concrete served as the prominent building material and strengthened the heaviness and stiffness of the masses, it also suggested a defensive or even aggressive architecture vis-à-vis the environment.\textsuperscript{338}

Although a Mediterranean typology was a source from which Karmi sought to divulge a scalar concept of type, which would serve as a foundation for creating public space, in his ensuing large projects public space remained institutionally restricted and monumental. Because so resolutely self-referential, the architecture denied associations with its existing context, and its

\textsuperscript{337} Amiram Harlap, “Reinforced Concrete, on the Security Syndrome in Israeli Architecture,” \textit{Musag} 8, (1976), 13. [Hebrew].

\textsuperscript{338} This point was made in \textit{L'Architecture d'Aujourd'Hui} in its piece on the Amal School. See “Les murailles de Jericho,” \textit{L'Architecture d'Aujourd'Hui}, no. 174, (July 1974), 83-86.
public spaces were unable to attain a convincing social reality extending the one practiced in the institution itself.

5. On Simplicity and Sincerity

5.1 A Case for Pre-Independence Architectural Asceticism. 1920-1940.

Israel’s declaration of independence in May 1948 marked a moment of revolutionary change. The new country’s founders regarded this accomplishment as a heroic event and prepared themselves for building the new nation. Their challenges involved the very practical demands of building a new state and their circumstances were further encumbered by the need to recover from the first Arab-Israeli War (1948-1949), the pressing necessity to absorb roughly seven hundred thousand new immigrants, and an obligation to revitalize the weakened economy. The lack of sufficiently skilled workers, the shortage in materials for construction and the rising expenses of imported materials reflected some of the significant difficulties with which architects and planners had to struggle. But these objective constraints, significant as they were, were not the sole determining factors in Israel’s architectural developments. Cultural influences and the conceptual foundations of Labor Zionism significantly impacted the profession’s evolution throughout Israel’s historical unfolding.

One of Labor Zionism’s most salient concepts was that of asceticism, which pervaded many cultural undertakings entangled with its socialist and national ideologies. Making do with

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339 Pier Vittorio Aureli has shown that asceticism, stemming from the Greek *askein* meaning exercise, self-training and, consequently, self-discipline, was initially about the self. Asceticism was a form of life necessarily confronting conventions while withdrawing from accepted norms. It was for this reason, according to Aureli, that early Christianity was influenced by asceticism in its form of monasticism. Monasticism was a way of seceding from the religious institutions of power, which had overtaken religious life. In this sense, it was a radical critique of power. The monk led a life in solitude, refusing to participate in societal rules of engagement.
what there is evolved from objective scarcity. The conditions in Palestine during the first Aliyot (waves of Jewish immigration to Palestine) were harsh. Building new settlements, sometimes in severe climatic and unhygienic conditions, with a dearth of infrastructure, and little capital investment or professional expertise posed difficult challenges for the young unskilled pioneers. Although communal structures and aid from Zionist organizations abroad were set up to ameliorate living conditions in the Yishuv (the Jewish community in Palestine before 1948) and support the Zionist national cause, the living conditions of the pioneers remained rudimentary and meager. The Yishuv in those years struggled with paucity, affecting all its members: rural, socialist and urban bourgeoisie. Impoverished material conditions, however, were not exclusively responsible for the culture of asceticism, which had become ipso facto a value, not unfamiliar within Judaism. Several immigrants, especially from the second Aliyah who came from Russia

For the purposes discussed here, Aureli’s distinction between religious asceticism and secular asceticism is important. Aureli recalled Max Weber identification of two kinds of asceticism: inner-wordly and other-wordly. The first involved withdrawal from the world, as in the case of monks. The second involved secular asceticism in which one withdrawals from mundane practices in order to dedicate oneself to the ethics of work and production (this, as Weber claimed was parallel to the Calvinist ethic of work in this world for the sake of redemption in the next world). Weber correlated Calvinism with the emergence of Capitalism and noted that with Calvinism, asceticism spread beyond the monasteries and became a diffused mentality in cities. In this form of secular asceticism, the notion was tied to the discipline of ethical rationality of production, securing minimal means for the worker’s best productive capacity. Aureli offered his own interpretation for secular asceticism, in which the oppressive sense suggested in Weber’s ideas was replaced by a redeeming factor. Asceticism for Aureli had the capacity to free the subject from the oppressive power of capitalism. Both readings of secular asceticism were central to modern architecture. Both for example and quite paradoxically had some bearing on the concepts of Existenzminimum. On the one hand the aim was to insure basic living conditions for the urban poor, on the other hand, it was a way to insure ‘productive’ poverty. It also indicated a paradoxical coupling of asceticism and property: “on the one hand subjects were encouraged to endure reduced living standards, and on the other hand they are pushed to become micro-entrepreneurs of their own minimal economy. This conversion of asceticism into the potential for development is a betrayal of its core principles.” This is to say that capitalism appropriated asceticism. Theodor Adorno and Max Horkheimer developed a similar notion in Dialectic of Enlightenment (1944), where they maintained that Capitalism and “mass culture” essentially appropriates every form of thought that opposes it. For more on the concept of secular asceticism and its relevance for modern architecture see Pier Vittorio Aureli, Less is Enough, (Moscow: Strelka Press, 2013).

Secular asceticism in Labor Zionism had another inflection. It was associated with redemption from capitalism and profit driven economies whose purpose was the economic benefit of the owners of the means of production, but it also entailed the suppression of the individual for a greater national cause. The initial principles of asceticism as an individual practice concerning the self and one’s potential to withdrawal from convention was transformed to a national and collective practice which under Labor Zionism became a predominant convention.  

342 I am referring specifically to Essene practices during Second Temple Judaism. This sect of Judaism was one among others [such as the Sadducees (Tzadikim פרסומים) and Pharisees (Perushim פרסונים)], which formed under the Hasmonean Dynasty. Its followers lived in collective communities mainly in the Judean Desert near Qumran. They were comprised of men only, usually elderly men, pacifists, emphasizing peace and fraternity among mankind. Refusing personal
and Eastern Europe, were inspired by a Marxist ideology, fusing their Zionist national cause with class struggle.\textsuperscript{343} Disdainful towards capitalism and commodity culture as well as the profit driven markets it fostered, they advocated a culture of modesty and austerity, tied to the pioneering program of physical labor as the prospect of a socialist national utopia. Practicing simple living and personal discipline were perceived as beneficial to the collective social and national enterprise. As sociologist Oz Almog has written:

\begin{quote}
The practice of collective frugality also stood for the primal state, the “nothingness” from which, in the future, the great “something” would grow. Austerity meant voluntarily facing a test, and it was thus an act of heroism. It also expressed altruism. It showed the willingness of the pioneer to do without for his fellows and thus demonstrated his solidarity with his community...

However, even if in practice people found it difficult to be orthodox ascetics, the force of the ethos held back public displays of consumerism and ostentation and affected dress, housing, eating, habits, and leisure practices.\textsuperscript{344}
\end{quote}

The idea of restraint as a reflection of meager means and a culture of frugality affected the discipline of architecture as well and played a determining role in architectural discourse before the establishment of the state of Israel. Mainly influenced by Labor Zionist ideology and the pioneering ideal of asceticism, many architects advocated for simple – not simplistic – building, which in several cases was aligned with a functionalist creed, though not always, nor necessarily so. This ethos was consciously propagated by para-state institutions, which managed

\begin{footnotes}[343]An inherent contradiction between Marxism and Democratic Socialism, on the one hand, and Nationalism, on the other hand, did exist. According to the writings of Philo of Alexandria (Philon פילון), the Essene collective communities worked in agriculture and crafts, practiced an ascetic lifestyle in which moral values and human equality were defining ideals. Other writers of the period describing Essene culture of spirituality, equality and asceticism (which have been associated with succeeding monastic life) were Josephus Flavius (Joseph ben Mattityahu, מתיתיהו בן יוסי) and Pliny the Elder. See Gabriele Boccaccini, Beyond the Essene Hypothesis, The Parting of the Ways between Qumran and Enochic Judaism, (Michigan: Eerdmans Publishing Co., 1998).
\end{footnotes}

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life in the *Yishuv* prior to independence. Some of these institutions were directly responsible for planning and construction. Through these powerful agents, architecture was conceived as an objective response to functional needs – its potential beauty a derivative of its practical prowess.\(^\text{345}\) Although representational purposes were seemingly suppressed, such arguments revealed a profoundly representational core; architecture was not simply an unmediated mirroring of its material foundation (functional purpose, budgetary constraints, actual availability of materials or professional know-how) it was also a reflection of the moment’s *zeitgeist*, or as one writer phrased it, “it needed to reflect the spirit of the people for whom it was built.”\(^\text{346}\) Thus, architecture’s representational value was not overlooked its referents simply shifted.

Two references can be distinguished, one disciplinary and the other cultural. The first had to do with an awareness of the changes in the discipline of architecture itself. Architects working in the *Yishuv* were conscious of the on-going self-critical stance that characterized the modern architectural tradition in the beginning of the 20\(^{\text{th}}\) century in which there was an ethic and aesthetic of frugality as well. One of the most telling examples is that of Frankfurt in the mid-1920s. Ernst May and his team’s housing plans for Frankfurt, May’s contribution to the concept of *Existenzminimum* which would become the subject of CIAM’s second meeting in Frankfurt (1929), and the ideas published in the monthly publication *Das Neue Frankfurt*, which had a wide international readership, linked modern architecture with concepts of asceticism. The idea of simplicity, of an architecture stripped of superfluities or pretensions, purged of extraneous ornamentation and focused on its internal principles had been forcefully advocated by May and his colleagues. Le Corbusier’s *cabanon*, which he had built for himself and his wife at

\(^{345}\) Richard Kaufmann, “20 Years of Planning of Agricultural Settlements,” *Twenty Years of Building, Workers’ Settlements, Housing and Public Institutions, Tel Aviv: Engineers’, Architects’ and Surveyors’ Union of Palestine*, (1940), 65. [Hebrew].

\(^{346}\) M. Reiner, “Palestine Architecture from a Social Point of View,” *Twenty Years of Building, Workers’ Settlements, Housing and Public Institutions, Tel Aviv: Engineers’, Architects’ and Surveyors’ Union of Palestine*, (1940), 126 [Hebrew].
Roquebrune-Cap-Martin in France in 1951, is another example. Measuring only 3.6 meters square, it accommodated living, sleeping and working in a decidedly ascetic frugal manner. This disciplinary background was further influenced by a cultural/historical reference. Architecture for the state-to-be was required to be a pragmatic and rational consequence of scarcity as well as an indication of the value system entwined in Labor Zionist ascetic practice.

The publication *Twenty Years of Building, Workers’ Settlements, Housing and Public Institutions* following the Histadrut’s building exhibition in 1940 reflected this form of ethic-aesthetic reasoning. The Histadrut – the General Organization of Workers in the Land of Israel – was an organization of trade unions, which from the time of its inception in 1920 until the establishment of the state in 1948 effectively managed and directed life in the Yishuv. The organization took it upon itself to oversee all areas of constructive activity in the worker’s movement in Palestine, but it was likewise responsible for a full range of proto-national tasks. These included immigrant absorption, settlements foundation, initiation and operation of agricultural cooperatives, provision of defense (the Haganah, The Yishuv’s paramilitary organization which later formed the basis for the IDF was founded in 1920), and the establishment of the workers’ bank (Bank HaPoalim which was established in 1921). The Histadrut also owned factories and industrial plants, set up the Yishuv’s largest cooperative construction company (Solel Boneh) and owned and managed transport services. Its mission also encompassed education, social welfare, health services (Kupat Holim sick fund) and culture.

Thus the exhibition of the organization’s building accomplishments over the first two decades of

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347 Le Corbusier’s *cabanon* a monk-like cell in the south of France evokes his relationship with the French Dominican friar Marie Alain Couturier who advocated for frugality and the rapprochement between Catholics and non-Catholics. Couturier was the figure behind the most important commissions (chapel and monastery) to Le Corbusier.

348 The Histadrut still exists today as an organization of trade unions, but after 1948 its national tasks were transferred to central government.

349 The Haganah was established by members of Ahдут Ha’avodah (Labour Unity), a Social Zionist party, which along with another labor party – Ha’poel Hatzair (The Young Worker) were precursors to the Histadrut.

its existence and the accompanying publication including texts by a range of its practitioners and advisors offered a revealing glance into the organization’s operative tasks and ideological basis, which would become a significant foundation in the formation of the state of Israel. In the publication’s final text *Palestine Architecture from a Social Point of View* M. Reiner,\(^{351}\) established a number of basic precepts regarding the role of the architect and the objective of architecture in light of the ethical and aesthetic values propagated in the Labor-Zionist-dominated *Yishuv*.

Maintaining that architecture was essentially a social art, in which the architect was required to consider his audience, planning *for them*, Reiner contended that the purpose of building was not the expression of the architect’s character but rather a reflection of the lives and values of those for whom he builds. Addressing three types of buildings: public monumental buildings, lucrative assets for investment, and private buildings, he argued that the first had historically been the subject of architecture, in which extreme expenditures were exerted beyond the building’s mere functional value for the purpose of “beautification and luxuries.” With a sardonic tone he criticized what he considered the inappropriate marble cladding in Tel Aviv, adorning banks and commercial buildings “so that luxuries and beauty, that is to say, the exaggerated and unnecessary expenditures, are the privilege of commercial edifices and private assets.” Making an argument in support of architectural *propriety*, meaning that a building’s appearance should be appropriate to its social stature, he contrasted the speciously lavish facades of such buildings with the dilapidated conditions of the city’s public buildings: its synagogues, main theatre, and city hall.

\(^{351}\) M. Reiner possibly referred to Marcus Reiner, an engineer and member of the board of *Solel Boneh* who worked for the British Mandate’s Public Works Department, for the Israeli Standards Institute and was a professor at the Technion.
Upholding somewhat of a *Sachlichkeit* approach (also inherently ethical and aesthetic)\textsuperscript{352} he rejected the inappropriate use of materials in Tel Aviv’s residential buildings in which “the ceramic tiles were used not only in kitchens but also throughout areas in which not even a drop of water would exist.” Arguing that such divergence from explicit use-value was the owner’s attempt to raise rent and withstand market competition, he went on to address the overindulgence of private homeowners, maintaining that although most have a large mortgage on their asset, they seek “luxuries with little use-value.”

With a trace of Loosian and Krausian sarcasm, Reiner denounced architects for pushing their clients to such tasteless superfluities instead of showing them the virtues of simplicity.\textsuperscript{353} Further he argued that beauty is not the result of dissipation, a concept he also identified with superficiality, which he considered particularly manifest in the building’s outer surface.\textsuperscript{354} In


\textsuperscript{353} Loos and Karuss’s cultural circle had tangential links with many Viennese Jews. Some of them also immigrated to Palestine in the 30s. For these cultural associations and a better understanding of Kraus see: Edward Timms, *Karl Kraus, Apocalyptic Satirist, Culture and Catastrophe in Habsburg Vienna*, (New Haven and London: Yale University Press, 1986). As well as Carle E. Schorske, *Fin-De-Siecle-Vienna, Politics and Culture*, (New York: Alfred A. Knopf, 1980).

\textsuperscript{354} The notion of surface-superficiality can be found in the following texts by Loos:
place of lavish material use, “adorning exterior walls for no other purpose than vain display,” he thought beauty was to be found in “organic” building, a term he attributed to the building’s proportions. This point is revealing, as apportioning is what you do when resources are scarce and it entails appropriate measure. Quite emphatically, he asserted that the architect who cannot create beauty with ordinary means is simply not an architect, and again echoing Loos, he explained: “the most striking Baroque Austrian palaces were whitewashed. Even the king’s Schönbrunn Palace was not made of stone.” Concluding sardonically: “No, we have no aspiration for beauty but a boasting for luxuries.”

In the same Histadrut publication Arieh Sharon made similar remarks regarding surface-superficiality and maintained that a building’s interior and exterior, its spaces and facades constituted one whole. In Public Buildings in Palestine he wrote: “The building’s character must be genuine. The exterior form must be a reflection of its interior (function).” His text, like


Loos argued that architectural cladding should be place-specific and maintained that for a couple of centuries Vienna had been a lime-washed city. Predicated on his analogy between clothing and cladding he thus maintained that to be “well-dressed” and to attract the least notice in centers of high cultural sophistication meant not to stand out, hence the finish of his Goldman & Salatsch Building, overlooking Michaelerplatz in Vienna (1910), as well as several of his Viennese villas: Steiner House (1910), Scheu House (1913), Rufer House (1922), Villa Moller (1928). See Adolf Loos, “Wiener Architekturfragen,” Reichspost, Vienna, (Oct. 1 1910). Reprint as “Some Questions Regarding Viennese Architecture,” Adolf Loos, On Architecture, Trans. Michael Mitchell, (Riverside, California: Ariadne Press, 2002), 65-69.

It is not unlikely that Reiner was familiar with Loos’ writings and with Kraus’ Die Fackel (founded in 1899). Born in 1886 in Chernivtsi, under the Austro-Hungarian Empire until 1919 (today a city in Ukraine), Reiner received a degree in Civil Engineering at the Technische Hochschule in Vienna and emigrated to Palestine in 1922. It is highly probable given his time in Vienna that he knew Loos’s earlier texts (before those published in Die Fackel) when they were published in the liberal Vienna newspaper Neue Freie Presse. Given his leaning to Zionism it is also likely that he knew of Theodor Herzl (1860-1904), one of the founding fathers of modern Political Zionism, commonly referred to as the visionary of the state of Israel, who lived in Vienna from 1878 until he became the Paris correspondent for the Neue Freie Presse and later its literary editor.

M. Reiner, “Palestine Architecture form a Social Point of View,” Twenty Years of Building, Workers’ Settlements, Housing and Public Institutions, Tel Aviv: Engineers’, Architects’ and Surveyors’ Union of Palestine, (1940), 126-127. [Hebrew]
Reiner’s, addressed the notion of “architectural honesty” and a need to maintain an architectural etiquette. Reiner’s concept of proportioning, etymologically tied to the idea of apportioning and scarcity, is reflected in Sharon’s use of the term equilibrium. As Sharon has written:

> Internal proportions mean a total equilibrium among the building's different parts, a lack of snobbish conduct or desire to dazzle the viewer with luxurious cladding/covering behind which one finds a dilapidated structure. Or a lavish entrance to a grandiose stairway, behind which one finds small bank offices or elementary school classrooms. (There are ample examples in Tel Aviv of pseudo-luxurious entrances, and further examples of public building facades in the city and in the countryside which desire to be monumental and fail to do so.)³⁵⁷

The concept of the building’s “sincerity”,³⁵⁸ thus, had a range of interpretations. For both Reiner and Sharon it initially entailed the reflection of the buildings purpose.³⁵⁹ Sharon had studied at the Bauhaus in the late 1920s during the directorship of Walter Gropius and Hannes Meyer. He was no doubt affected by the change the institution had gone through from its early years. Meyer’s assertive materialism and functional and economic determinism surely influenced him.³⁶⁰ Sharon also worked for Meyer in his Berlin office and was head architect of Meyer and Hans Wittwer’s Trade Union School of the Federation of German Trade Unions in Bernau (1928-1930). But Sharon qualified a potentially coarse and deterministic functionalism by tying the idea to the concept of architectural propriety, in which a visible distinction had to be maintained between private and public buildings as well as between buildings accommodating different

³⁵⁷ Arieh Sharon, “Public Buildings in Palestine,” *Twenty Years of Building, Workers’ Settlements, Housing and Public Institutions, Tel Aviv: Engineers’, Architects’ and Surveyors’ Union of Palestine*, (1940), 115-116. [Hebrew]

³⁵⁸ The Hebrew word used for sincerity is kenut הנות, meaning frankness, honesty, sincerity, and openness. The word for simplicity is pashtut פשטות It has two meanings: 1. It is an adjective describing a lack of (unnecessary) complexity. 2. It describes a simple and modest way of life. The word p’shat פשṭ It stands for one of the methods of Jewish Biblical exegesis in which the hermeneutical act is seen to refer to the direct, straightforward and literal meaning of the text.

³⁵⁹ For the semiotician Umberto Eco, buildings can denote primary functions and connote a range of secondary associations and meanings. Both, he argued, were conditioned by the existence of shared norms and expectations. See Umberto Eco, “Function and Sign: Semiotics of Architecture,” *Via* 2, (1973).

purposes. Thus, although advocating simplicity and denial of superfluous ornamentation, the concept of architecture’s communicability was in many ways present in Sharon and Reiner’s thinking. While the idea of conveying the building’s purpose was no longer dependent on affixing recognizable symbols to its structure, architectural plainness and bareness did not compromise the building’s communicative nature. In this sense, the buildings were not only intended to convey their purpose. They were also intended to give expression to moral ideas, “speak of what matters,” and provide life with measure in both the literal and symbolic sense. As Sharon has written establishing both the iconographic and ethical dimension of a building:

A school surrounded by green will express its purpose with modesty ‘here children will learn and grow happily and through work’, and the refectory in the kibbutz ought to be a pleasant and modest space for the members to convene in for dinning or conversation – without competing with the kibbutz assembly hall or its theatre.

Conditioning all types of buildings, even those pertaining to institutions of greater public stature, was Sharon’s insistence on modesty, a term repeated several times throughout his text, by which he meant that buildings ought to have a “resolute but unassuming expressive potential.” In English, modesty is related to moderate. Both derive from the Latin modus, which always carries with it a sense of measure (also mode and manner) thus reassuming the connection to proportioning and equilibrium. The idea of modesty as connected to measure and proportioning was also taken to mean a lively equilibrium among parts of a whole – either a building or

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363 Arieh Sharon, “Public Buildings in Palestine,” Twenty Years of Building, Workers’ Settlements, Housing and Public Institutions, Tel Aviv: Engineers’, Architects’ and Surveyors’ Union of Palestine, (1940), 116. [Hebrew]
community. The idea of modesty and measure appear in the Hebrew term for modesty, tzniut צניעות, which means a lack of arrogance, but its root צנאה tzena entails an ascetic and frugal lifestyle. In macroeconomics tzena denotes austerity politics and the initiation of rationing policies.  

Sharon and Reiner touched upon a second aspect of a building’s “honest appearance” which they believed should be manifest already on its outer surface. They both implied that buildings ought to be a reflection of the way they were made. This could have referred to the process of their construction, and it could also have indicated their structural rationale. Both alluded to these meanings although neither went further to develop them at this point.  Still a third topic of design figured into Sharon’s sense of architectural modesty and integrity: building materials, the use of which was evident in both fabrication and structure. Maintaining that the Yishuv had been aligned with modern European architectural precepts and had, therefore, typically employed smooth, “taut” finishes, whitewashing its buildings “from top to bottom”, he suggested a new approach to materiality:

*No particular attention was given to a materials’ honest expression, to its visibility and capacity to express its essence and character (natural wood in windows and doors, iron and copper in railings, stone, concrete, silicate bricks and unplastered brick)...*

He proposed building with “natural” stone in mountainous areas and with exposed silicate bricks in the plain by the sea:

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364 Regarding the connection of modesty and statehood one is reminded of Manfredo Tafuri’s argument about Venice in the Renaissance and the search for an architecture that deferred to the Venetian republic and did not compete with it. See Manfredo Tafuri, *Venice and the Renaissance*, (Massachusetts: MIT Press, 1995).

365 These themes would inform architecture in Israel more cogently in the 1950s

366 Arieh Sharon, “Public Building in Palestine,” *Twenty Years of Building, Workers’ Settlements, Housing and Public Institutions, Tel Aviv: Engineers’, Architects’ and Surveyors’ Union of Palestine*, (1940), 116. [Hebrew]

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By taking advantage of these possibilities we will be able to impart a certain materiality to our public buildings which would play down their appearance and express their connection to the ground on which they stand.\textsuperscript{367}

Thus, the idea of materiality gradually unfolded in two distinct (although interrelated) meanings, pointing to the double sense implied in the word. The first was predicated on objective phenomena – the social, economic and political conditions in which architecture, as all fields of artistic production, took shape. The second pertained to the literal use of materials in construction. Based on Sharon’s adherence to the idea of architecture’s unassuming expressivity, the particular employment, handling and finishing of materials became a means not only for creating unpresumptuous architecture but also one that was literally rooted in its particular locale. The concreteness of the situation, realized through location, available building materials, and the skill involved in the construction métier became a legitimate source for architectural creativity. Architects now sought to coordinate pure composition and extra-architectural concepts (borrowed from artistic practices for example) with material phenomena rather than enlist the latter in the service of the former. The aim of the designer became inherently tied to the qualities of the work and to ethics of practice.

But as already indicated, there was no categorical separation between a strictly “objective” mirroring of material conditions and representational intents, since a factor of expression existed in every object.\textsuperscript{368} This was plainly articulated in Reiner’s text. For him, a third rendition of architectural honesty was intended. The idea of the building’s “straightforwardness” in which it would ostensibly assume a similar position to that of a functional tool emerging out of factual requirements and conditions at the same time suggested that it represent those very conditions. In other words, architecture in the \textit{Yishuv} was quite

\textsuperscript{367} Ibid.
literally proposed to sustain the tension between objective materiality and mediated representation. From the text it became clear that practical form and use-oriented architecture devoid of superficiality and excess was also categorically and unavoidably symbolic. According to Reiner the architect had an obligation toward his clients to inquire into the work’s most essential and necessary components for the purpose of revealing its integrity but this integrity was authored and authorized by the architect.

Reiner reminded his readers that the “spirit of the Zionist public” was not to seek profits, a notion he deplored as “a ridiculous outrage!” Referencing Martin Buber’s appeal to a pioneering spirit, he called architects to express this spirit of laborers, commending Richard Kauffmann’s plans for Nahalal (1921) and Erich Mendelsohn’s design for the Tietz vocational school near Kibbutz Yagur (1936) as such paradigmatic instances. With a turn to “grounded” architectural examples elsewhere, he gave Southampton University College in England as a particular case in point. The outbreak of the First World War impeded further use of the campus, as the buildings were temporarily transformed into a military hospital. The wooden huts, erected at the rear of the existing building for military purposes, were subsequently used by the institution, which later “slowly and gradually erected new buildings.” The reuse of the wooden hut was symbolic and reflected the idea of making do with but also readjusting conditions at hand.

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369 He did not make the distinction between the symbolic intent of the architect and the symbolic dimension attributed to the work by the viewer nor did he address the different ranges of symbolic intent from the very literal to the more indirectly suggestive.  
370 Nahalal was the first cooperative agricultural settlement (moshav) in Palestine. Richard Kauffmann (1887-1958) who immigrated to Palestine from Germany in 1920 planned Nahalal in 1921. In Kauffmann’s plan the farming units circulate around the village nucleus in which the main community buildings were located.  
371 The Tietz vocational school for metalwork and woodwork near kibbutz Yagur (named after Dr. Ludwig Tietz, a surgeon and leader of the Jewish Youth Association of Germany) was founded with the support of Jewish Zionist organizations in Germany as part of the Youth Aliyah to Palestine. This Aliyah (immigration to Palestine) was an attempt to rescue German Jewish children and youth from the Nazis by sending them to Palestine where they were absorbed by some Kibbutzim (collective communities) as well as resettled in new youth communities. Mendelsohn started to work on plans for the building in 1936. The school operated between 1937 and 1949.
This subtle appeal to making due with what exists could easily be misinterpreted. In modern architectural history appeals to objectivity had often transpired into a coarse materialism. Reiner’s ending remarks could be understood in this manner:

*Some of us may remember when Allenby Street culminated in a new immigrants transit camp. We have acquired a lot since, but we have lost a lot as well. The view of the tents seemed more beautiful to the new immigrant than the coffee shops standing in their place. Therein lies a true expression of the pioneer spirit, and the heart laments what we have done with the money invested in the homes, which stand there today. I urge our architects to focus more on the architecture of tents and huts.*

If taken at face value the proposal seems nostalgic, reductionist and simplistic, but considered rhetorically, the argument paved the way to a more refined understanding of functionalism and a more sophisticated approach to the concept of architectural objectivity. Reiner’s praise of tents and huts ultimately sought to capture a design ethos not a literal building strategy. In the ensuing years, and specifically following independence, when architecture in Israel grappled with difficult objective conditions and pressing national demands, scarcity was understood as giving rise to creativity rather than a counter position to wealth. Letting creativity emerge out of phenomena as resourcefulness and the concept that current phenomena was important for architectural creation became an inspiring basis for design, and indeed *design* it was. The materials, which were incorporated into buildings in a seemingly unmediated manner, were not simply *given by nature*. The very process of their transposition entailed reshaping. Thus, even though design methodologies became increasingly sensitive to the innate possibilities presented by existing materiality, and the concreteness of actual materials became a distinctive force in projects, architects did not simply and unreflectively reveal this materiality or the

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372 M. Reiner, “Palestine Architecture form a Social Point of View,” *Twenty Years of Building, Workers’ Settlements, Housing and Public Institutions, Tel Aviv: Engineers’, Architects’ and Surveyors’ Union of Palestine*, (1940), 126-127. [Hebrew]
positive laws associated with it. The process of design even at its most concrete moment fused materiality with the architects’ interpretation of it.

5.2 A State for a New Realism: Asceticism and the Ordinary post-1948.

The alignment between architectural simplicity and sincerity, which had appeared in the 1940 Histadrut publication, was further articulated in the years following independence. With meager means at their disposal and influenced by the secular equivalent of asceticism and restraint, architects pursued work in which the material concreteness of the present was fully realized. Necessity and constraint became channels for innovation. The prevailing concept of asceticism was reinforced in 1949 with the government’s initiation of a rationing policy. The Minister of Rationing and Supply, Dov Yosef explained the policy to the Knesset (the Israeli parliament) as an economic rehabilitation plan in which five main objectives would be pursued: maintaining an austerity regime, lowering living expenses, minimizing use of foreign currency (the Sterling Bloc, to which Palestine had belonged, suffered a dollar shortage after the war), encouraging use of locally produced goods and developing local agriculture and industry. Although in the inter-war period under Mandate authority Palestine was subject to a rather laissez-faire administration (running parallel to the Yishuv’s socialist agenda), British policy of government control, widely implemented after World War II, influenced the newly appointed Israeli government, which also adopted many of the Mandate legislations and administrative structures. The first Israeli government, comprised of a coalition headed by Mapai (Mifleget Poalei Eretz Yisrael, lit. Workers' Party of the Land of Israel) was also naturally prone toward

373 See footnote 331.
government intervention due to its ideological foundation in nationalist-socialism. In many ways, the Israeli government was actually continuing policies initiated by the Zionist executive which sought a comprehensive planning and development of the Yishuv toward national priorities (see chapter 3). At this moment, Israeli public consciousness was largely sympathetic toward interventionist strategies, which were not uncommon in other parts of the world after the war.

While rationing was first applied to food and essential goods it soon encompassed clothing and furniture. “Lakol” furniture was a uniform, mass-produced line of beds, tables, chairs and appliances. Literally meaning “for all” it promoted equality, affordability and avoidance of squandering, reflected the effort to standardize and rationalize the production process, lower manufacturing costs and encourage local consumption in an effort to minimize import and develop export (resembling the idea behind the state-owned Volkswagen in Germany in the 1930s, which was Germany’s version of the American Ford model T). Although by 1952 the enforcement of the rationing policy had begun to wane, the culture of austerity remained prevalent. This was evident in Planning Housing Operations, a text written by Yaakov Ben Sira, Tel Aviv’s former head engineer, and published in Handasa WeAdrikhalut in 1952, in which he contended that there was no longer room for “illusions” and that it was “a political necessity to lower the standard of living.” Arguing that builders would have to avoid import of metals and other costly elements, Ben Sira asserted that it was essential to learn to make due with minimum import within the constraints of economic scarcity:

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374 Following Zeev Sternhell, I am using the term nationalist socialism despite the fact that it does not appear in English dictionaries, in which the more common term national socialism is preferred. Since the latter has been associated with the Nazis, I have employed the adjective nationalist to describe a variant of socialism.


376 The Reparation Agreement with West Germany was signed that year and funds paid to the Israeli government ameliorated Israel’s economic distress. Internal criticism of the austerity policy was also influencing its further enforcement although it was only officially cancelled in 1959.
Of course we cannot give up what is necessary for the stability of our buildings and their structural durability in the presence of the forces of nature. But everything else must be found from our own materials and we must also reduce manpower. We should allocate human effort beyond a certain quota only for public purposes. For housing we will have to reduce that as well. We cannot continue dreaming about employing expensive machinery in the near future. Instead, we must use ready-made elements and rationalize construction.

Thus we must also reexamine planning and the image of our plans. If we remove all illusions and clearly see the means available to us, we have no other way but to declare a New Style the alignments of which are simplicity and austerity... 377

The appeal to a “new style”, which makes due with what is, demonstrated concern for present conditions. Architecture in Israel confirmed its dissatisfaction with previously imported ideas, sought to replace its vicarious experience of newness and progression (which transpired through the images of modern architecture), and tried to realize the context of its making. Opportunities were understood to germinate from limitations. A material directness and immediacy sought to reveal the way materials actually appeared and performed, in this respect continuing Sharon’s earlier material proposition.

A plea to use local materials, produced in Israel, was a result of rationing policies but also reflected an aim to bolster national pride (Pl. 5.2 01,02) A document concerning the promotion of the cement industries published by the government’s planning department in 1951 established the importance of cement as a primal building material, present as raw material in Israel “in unlimited amounts.” 378 Concrete, owing much to the fact that all of its components were present in Israel, became the country’s foremost building material and assumed a variety of construction techniques and finishes including those in which it remained exposed on both outer and inner

377 Yaakov Ben Sira, “Planning Housing Operations,” Handasa WeAdrikhalut 10, (1952), 17-20. [Hebrew]
378 Quoted in Zvi Efrat, The Israeli Project: Building and Architecture, 1948-1973, (Tel Aviv: Tel Aviv Museum of Art, 2004), 105. [Hebrew] According to Efrat, a single cement plant existed in Israel and doubled its production after the large immigration waves but was still unable to meet demands, thus requiring additional cement import and triggering increased rationing and, consequently, the existence of a gray market.

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surfaces.\textsuperscript{379} Also the silicate brick, the local production of which began in the 1920s (see chapter 1) began to reappear with no whitewash coating maintaining its structural load-bearing capacity as well as its aesthetic validity. The exposure of materials was coupled with an equally uncompromising direct structural rationale in which the building’s structure could be clearly recognized; which is to say, made legible. Legibility was necessary for the materialization of this “New Style.”

Kami-Meltzer-Karmi’s Building Research Station at the Technion (1950-1960) embodied this new materiality. The architects used a concrete columnar structure perceivable on the building’s exterior façade with an exposed concrete block infill, which slightly receded inwardly, accentuating the two distinctive systems. When glass infills replaced the concrete blocks the structural frame remained visibly coherent (Pl. 5.2 03-05). In order to achieve a large open expanse for the research hall, a cast in-situ exposed, reinforced, folded, thin-shelled concrete roof was fabricated on the ground and then elevated to the top of the structure. The solution was novel in Israel at the time, the outcome of complex engineering by structural engineer Mark Pintel who had worked with Dov Karmi on several other projects. Karmi and Pintel incorporated a similar solution for the Israel Standard Institute in the institute’s engineering lab building (Pl. 5.2 07,08).

In the Building Research Station at the Technion, interior walls received a variety of finishes. In some cases the concrete was whitewashed, in others concrete blocks were left exposed. A different kind of handling was applied to the exposed concrete in the foyer, which was cast in polished wood formwork. Although technically the same material, the specific process of its construction and handling resulted in a more refined finish although the joints

\textsuperscript{379} Studies on concrete construction continued throughout the decade. A comprehensive research was published in 1963 by the Building Research Station at the Technion establishing the relevance of concrete for the hot climate in Israel. See R. Shalon, Building Research Station, Israel Institute of Technology, “Problems of Concrete in the Hot Regions of Israel,” Handasa We’Adrikhalut 21, (1963), 49-54. [Hebrew].
between the wood boards were actually emphasized by letting the concrete seep out of them during the pouring. The architects also maintained the formwork’s trace imprinted from the horizontal wooden boards (Pl. 5.2 06). This was likely done for the sake of conferring visual rhythm and a different scale to the parts associated with a change of movement within the building. The aesthetic of building with ordinary materials at-hand revealed different opportunities within this new materiality, unfolding not through myriad materials but through different finishes of the same material. The principle of suitability is introduced here, in which different finishes are fitting for different places.

In the Ort Singalovski School in Tel Aviv (1956-1959) Karmi-Meltzer-Karmi used a similar material palette and achieved structural clarity. The school, part of Ort Israel, was a division of the world Ort organization, a non-profit Jewish association for the promotion of skilled trades. Jewish civil right activists in Russia founded the organization in the 1880s in an effort to ameliorate the conditions of Jews restricted to the Pale of Settlement. In Israel the organization set its first school in Jaffa in 1948. Karmi’s practice was appointed the design of the institution’s Tel Aviv extension. The institution’s objectives coalesced with the national mission to absorb new immigrants and facilitate their integration in the new country through the promotion of technological studies and vocational crafts.

The building had a concrete columnar structure, legible on the façade, with an exposed concrete block infill. Like the building in the Technion, Karmi emphasized the horizontal floor slabs. The vertical columns slightly receded, as did the infill blocks. The latter formed spandrels disconnected from the floor slab and incased by two separate concrete beams. Prefabricated, adjustable asbestos vertical sun-breakers protected openings behind (Pl. 5.2 9,10). The façade was extremely articulate; load bearing elements were distinguished from infill components, and fixed parts differentiated from adjustable devices. The building rationally and methodically
communicated its structure, the process of its construction, and its adaptability to the natural environment. The treatment of the raw material and exposed structure was also registered in the stair tower, which was separated from the building (Pl. 5.2 11). Stair and floor slab were distinct from the load bearing cast in-situ concrete wall as well as from the concrete block infill. Here too, all concrete components were left exposed and meant to be seen as such. Simplicity and frugality were put on show.

In this rational, modular, elemental building the architects exposed the building materials, including those that had been mass-produced or prefabricated, without renouncing a highly sensitive design process. The building conveyed a sense of the ordinary in a decidedly rational structural syntax in which a reliance on what exists included its necessary transformation.\(^{380}\) In other words, although ready made or readily available materials, precast or mass produced, constituted many of the building components, the composite character of the whole entailed proportioning, readjustments and detailing. In short, it involved a practice quite contradictory to an architectural culture predicated on rational construction practice and mass produced building components. It involved a certain degree of craftsmanship.\(^{381}\)

As shown in the shop drawings for the Building Research Station at the Technion, a relief detail meant to join two kinds of materials or the same material bearing different finishes was intended in many parts of the building (Pl. 5.2 12). An interpretation of this particular detail was also incorporated in the wet construction formwork at the Ort Singalovski School. It appears as a relief joint between the stair and the concrete wall. Unlike trimming details or motif details which

\(^{380}\) This is discussed in greater detail in the following chapter. Instances of transformation would include, for example, the use of the concrete block as either an infill component or a load-bearing one. With regard to poured in-situ concrete the transformation is evident in the craft of detailing which is incorporated into the early design stages instead of being applied to the building after its general form had been established. The example of the recess detail integrated into the formwork is a case in point.

were typically meant to be seen, this type of detail was employed for the purpose of concealing what the process of construction could not accurately achieve. The relief detail, most likely unnecessary when construction was executed with outstanding skill and precision, was actually more relevant for places in which this exactitude was wanting. This was especially the case with wet construction and concrete cast in situ. Even if the laborers were exceptionally dexterous the end result was subject to several extraneous variables such as weather conditions or the mixture of the concrete’s different components. The use of the relief detail was effective precisely because it enabled tolerance in the construction process.

Karmi adapted his architectural syntax from the 1930s to the new cultural economic climate, as did others in the field. This new style developed in the context of asceticism and austerity politics combined with the *sachlichkeit* matter-of-factness and directness, which had informed currents of modern architecture in Europe in the 1920s. This is to say that in Israel in the first decade after independence poverty was put on show. Architectural historian, Zvi Efrat has characterized these years as the “gray period” in which a blend of functional bureaucracy and practical directness with no romantic overtones shaped the discipline, but as shown in the aforementioned projects, much of the architecture that ensued did not abide to a crude materialism and qualified its “grayness” with nuances, inflections and overtones. In some cases it involved varying degrees of material finishes, even when the same material was employed. Also the craft of detailing was not renounced but simply re-conceptualized. As the recess detail in poured in-situ concrete showed, it was incorporated into the molding process, hence the detail was not added to the form after construction but inherent to the construction itself. Reveals, in

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382 The *Neue Schlichkeit* and the related concept of *Existenzminimum* – a secular manifestation of asceticism from earlier in the century – had also influenced modern architects working in Israel well into the late 1950s and, as shown, asceticism was also a seminal constituent in the ideology of Labor Zionism from which it received a national inflection. Though Karmi’s architecture was eminently functional, and reflected the concept of *sachlichkeit* as “objectivity” or “factualness” it was not reduced to a techno-functionality but understood functionality as encompassing technical features as well as pragmatic and place-specific concerns.

this sense, were conceptually different from coverings. Making do with restrained conditions and creating architecture with materials at-hand was by no means denial of design. In Dov Karmi’s buildings as in several others, design and thorough detailing (at a range of scales) had always been an integral part of the project. Structurally speaking and in terms of the building’s actual fabrication they could have been omitted or at least reduced. Because they were not one can conclude these practices were not exclusively determined by technical necessities. Of course the nature of this historical moment’s details differed from previous detailing practice. Karmi’s carefully crafted wooden handrails and detailed millwork in general were understandably more limited at this time. Their restricted use was also tied to the concept of modesty and propriety according to which such details were inappropriate for certain buildings.

Certain similarities between this chapter in the history of Israeli modernism and aspects of the British New Brutalism can be discerned, although the architects working in Israel at the time did not acknowledge this connection. For the purpose of establishing similarities and differences, it is useful to recall some of the early ideas behind the New Brutalism, while bearing in mind the concept’s historiographic formulation under Reyner Banham’s authorship. Banham, who was somewhat of a conceptual godfather for the movement (although the direction of its protagonists later evolved into something very different than what he had intended), characterized the ethos as a typically post-war “British” attitude towards a “softened” modernism, no doubt related to his effort to establish British relevance to the modern movement which had been somewhat dawdling in the inter-war period. Brutalism, under Banham, or more precisely the

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384 New Brutalism was coined as a phrase in England indicating the incipient emergence of a movement only in late 1953. I am referring to Peter Smithson’s text in *Architectural Design*. The post-war developments of what has come to be referred to as New Brutalism in England and Brutalism elsewhere have materialized differently in diverse locations and under distinct authorships. While it is possible to identify shared values among these brutalist productions in geographically and culturally different locations, local realities affected processes of analysis, planning and production and resulted in a variety of brutalist projects which, arguably, shared little in common.
“New Brutalism” was endorsed as the most rigorous and essentially most modern critique of what was thought to be a no-longer relevant modernism. Its emergence in England was considered a reaction against the decline to the picturesque and what has come to be termed the “William Morris revival”. In this sense it rejected the Welfare State policies’ predilection for a “humanized” modernism modeled by Townscape theories or “the Swedish paradigm”. In Israel, it should be emphasized, there was no atavistic relapse to a pictorial (or Orientalist) architecture at this moment. Since the early 1930s Israeli architects sought to differentiate themselves from romantic Orientalist overtones seeking to establish a modern, rational national architecture. The emergence of a “new style” post 1948 cannot, therefore, be associated with a reaction to such sentimentalism. It was more likely a chapter in a continuously evolving modernist paradigm.

In 1955 when the term brutalism was first conceptualized in the pages of the *Architectural Review*, Banham tied it unequivocally to the Smithson’s Hunstanton Secondary School in Norfolk completed a year earlier (1949-54), which had clear imagistic associations with Mies van der Rohe’s IIT buildings. The “direct” approach to materials “as found”, the revealing of structure and the “formal legibility of the plan” were considered decisive features of this new approach to an “objective”, matter-of-fact kind of architecture. The Smithsons would later recall that it was an effort to revive “those advanced buildings of the twenties and thirties

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385 This was likely coined as a satirical response to the emerging “New Empiricism”, “New Palladianism”, or “New Humanism”.

386 The refusal to relapse to past “styles’ and sentimentalism was likewise voiced a decade later in Banham’s attack on Italian historicism in an article titled “Neoliberty – The Italian Retreat from Modern Architecture,” as well as in the 1959 last CIAM conference in Otterlo where Peter Smithson launched a vociferous attack on Ernesto Nathan Rogers’ Torre Velasca skyscraper in Milan. These objections reveal the hostility towards what some members of Team 10 considered to be cultural atavism. For more on the emergence of the New Brutalism in England see: Stan Allen and Hal Foster, “A Conversation with Kenneth Frampton,” *October*, 106, (Fall 2003), 35-58.

387 The similarity appears more in the overall image than in the tectonic detailing. For an account of the increased and rapid communication through images in architecture in the post war period see: Claire Zimmerman, “Photographic Images from Chicago to Hunstanton,” in Mark Crinson and Claire Zimmerman eds., *Neo-avant-garde and Postmodern, Postwar Architecture in Britain and Beyond*, (New Haven and London: Yale University Press, 2010), 203-230.
whose lessons (because of a few plaster-cracks) have been forgotten.” The (unbuilt) House in Soho published in 1953 in *Architectural Design*, revealed a similar “warehouse aesthetic”, treating materials “as found”, applying minimum finish or articulation, exposing structure and construction processes.\(^{388}\)

In relation to the notion of place-specific architecture it is worthwhile noting that Hunstanton was comprised of a most common, banal and traditional British building material – brick. This was simultaneously pragmatic and expressive as it evoked the associations brick aroused of working-class districts and the “drudgery of the every day.”\(^{389}\) The exposure of pipes and conduits, structure and infill, and the conspicuous placement of the massive water tank instigated what was tellingly termed a “bloody-minded”, “brutal” approach to design which, according to Banham, was precisely one of the ideas brutalism stood for. It was offered as a concrete architecture addressing necessities “without rhetoric”.\(^{390}\)

Putting in abeyance Banham’s insistence on the subversive stance informing the British brutalist ethos, which I find inapplicable to the comparable moment in Israel, both cases demonstrated an adherence to the concreteness of their particular situation with all its limitations and constraints, appealing to the here and now, to actual phenomena as a generating force in design practice. Anthony Vidler expressed a similar notion when pointing out that New Brutalism was a product of post-war “austerity Britain” a “feature of necessity,”\(^{391}\) and the Smithsons acknowledged that their work was an attempt to “drag a rough poetry” out of constrained

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\(^{388}\) The “as found” had parallels in earlier art practices such as the use of the readymades or found objects. For André Breton, for example, the readymade was also an ethos of working with what is at hand which had specifically aesthetic intentions.

\(^{389}\) Anthony, Vidler, “Another Brick in the Wall,” *October* 136, (Spring 2011), 105-132.


\(^{391}\) Anthony, Vidler, “Another Brick in the Wall,” *October* 136, (Spring 2011), 105-132.
This evident ethical foundation was further emphasized retrospectively in what appeared to be Banham’s eulogy to a defunct movement. In the self-evident title to his well-known monograph *The New Brutalism, Ethic or Aesthetic* (1966), he had argued that the New Brutalism was initially perceived as “an ethic not an aesthetic” since “It described a programme or an attitude to architecture.” In this sense it also transcended the individual building per-se and encompassed a wide range of architectural objectives some of which dealt with urban questions and the idea of the human habitat. The term, he admitted, later shed these concerns and was typically narrowed to a stylistic label mainly focused on treating building surfaces. Although the question of building surfaces could certainly be tied to moral values, as has already been suggested in this chapter, and has in fact been tied to ethical thinking in several historical periods (Loos’ critique in the context of *Fin de Siècle* Vienna was mentioned as one example), it could also easily become fetishized, aestheticized and, as a result, indulged in self-referential exercises causing it to disengage from questions pertaining to the collective sphere and social ethics. It is likely that Banham’s critique was directed to this kind of thinking.

In Israel, during the first decade of statehood, the particular use and exposure of certain local and available materials, the effort to rationalize the construction process and the legibility of the building’s structure were coupled with orthogonal axial compositions, clear layouts of plans, lucid sectional organizations and uniformly harmonious facades (quite similar to the formal characteristics of Hunstanton). These measures were perceived as reflecting efficiency, coherency and straightforwardness and, as earlier proposed by Reiner and Sharon in 1940, were associated with the concept of architectural honesty, a concept, which would increasingly gain momentum in

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394 Ibid., 47, 75.
Israeli architectural discourse. Buildings planned for the hegemonic Labor Zionist institutional and governmental mechanisms typically embodied this sense of honesty tied to the idea of *expressive restraint* in which a *civic modest monumentality* refraining from extravagant formal gestures and idiosyncratic compositions was intended. The morality in this moment’s architecture in Israel did not deny aesthetic intent but tied it to its underlying ethical agenda.

Upon the closing of the first decade after independence architect, critic and historian Aba Elhanani recapitulated the concept of honesty in architecture. Reflecting on the “revolution” of modern architecture, which he considered a response to “the decadence of Neoclassicism and *Jugendstil,*” Elhanani suggested that the recent and most exceptional contribution to modern architecture was centered on this idea of honesty. As he has maintained in 1960:

> In a historical perspective, the architectural revolution of our time is similar to preceding revolutions. All the characteristic features are evident. The same dissidence characterized the beginning of the Renaissance, which rebelled against Gothic architecture…most of the slogans have been used: constructivism,

395 While the white washed buildings of the 1930s and early 1940s did not necessarily expose the building’s structural rationale, in the 1950s the structure’s overall legibility was considered a principle of “honesty” as was the exposure of the building’s materials. In the 1960s a different appeal to honesty will be invoked (see chapter 6).

396 See also the obituary to Gad Asher, Chief Architect of the Public Works Department in which the exaltation of his work was on the basis that “he resisted the temptation of building show-piece public buildings which would have served as monuments, perpetuating his name as architect. On the contrary, he combined in the public buildings he erected two of the most important characteristics – functionalism and modesty, as befits a small country that is not at all affluent.” Ample vocal instances against profligacy marked the architectural discipline in Israel in the 1950s preoccupied with concrete design methodologies as fervently as with their outward visibility. This notion would reappear in the mid 1960s in a vocal debate between architects, artists, and writers and will be discussed in chapter 6.

397 Thus for example, upon the completion of the *Histadrut* Headquarters Building in Tel Aviv, the daily newspaper *Davar* – the workers’ journal and essentially the *Histadrut’s* mouthpiece – published an article in praise of the project, responding to the criticism according to which it had purportedly diverged from the etiquette of frugality. The building was confirmed “a fine building worthy of its purpose…Even though the rooms are not large and the new building is not wasteful with the space, it is rather extensive, impressive, and worthy of respect, though it does not deviate from the limits imposed by austerity, and barely contains imported objects… the walls are clad in stone, not imported marble as the slanderers have suggested, but a beautiful Israeli stone…” See “The *Histadrut* Headquarters to its New Home,” *Davar,* (May 1953). [Hebrew]. An elaborate detailing of the project’s cost was published to insure its adherence to the moment’s codes of propriety. “The [*Histadrut’s*] Executive Committee and *Solol Boneh* have not purchased anything from the black market”… “The *Histadrut* is comprised of six hundred thousand members today, the cost of the project is two IL [Israeli Lira] per member. Is there another civic institution in our country able to spend such a small amount on its central edifice?”

398 Aba Elhanani was born in Warsaw in 1918. He immigrated to Palestine in the beginning of the fifth immigration wave in 1933. He completed his architectural studies at the Technion in 1941 with professor Alexander Klein. Aside from his contribution to Israeli architecture as a practicing architect, Elhanani was a prominent architectural historian critic and editor. In 1966 he established the journal *Tavi,* an art and architecture periodical, which he edited until 1992. He also authored *The Struggle for Independence, The Israeli Architecture in the Twentieth Century* (1998). [Hebrew].
with its insistence to emphasize structure, was manifest in many past styles from Egypt, Greece, Rome, and the Gothic period, excluding that hybrid style of the 19th century which became contaminated to the point of losing its natural instincts. Even the functionalist catchword is no novelty, as past architectures certainly responded to function... And yet we have renewed one slogan, which may well be our era’s interesting and surprising contribution to the development of architecture. This slogan has no international name ending in an ‘ism’ but its essence is honesty. The new architecture declares that it wants to be honest. The modern architect must refrain from camouflage, concealment, deception etc. An office building must appear as such and a building for a theatre must do the same. This honesty compels us to minimize whitewashing because it is preferable to reveal the natural building materials, emphasize the structure so that it will be visible and comprehensible, reveal expansion joints and anchor holes in concrete; this honesty is without a doubt a new value in architecture and art. We find here an ethical component that has invaded the aesthetic domain.399

Up until now my intention has been to underscore that the notion of morality of design, the idea of making due with the reality (and scarcity) of the situation was a foundational principle in the architecture of the first decade after independence in Israel as it was arguably so in post war England under the banner of New Brutalism. In the “new style” which had emerged after 1948, creativity germinated out of ordinary, prosaic things. The architects who had rejected the aesthetics of abstractions and absolutes did so for the purpose of reengaging in life, acting and producing with what there is according to a perceptive recognition of reality. In what follows I will suggest that in Israel this avowed ethical basis of design also embedded in Labor Zionist ascetic values gradually became aestheticized, consequently abdicating its initial meaning. If a “brutal” approach to design in the early 1950s reflected this form of austerity in architecture and was informed by ideas of honesty and modesty, its later stylized versions maintained a sense of brutalism of another sort. It is therefore my contention that this early period can be defined as the first phase of a brutalist culture in Israel, the second phase of which will emerge as a profoundly different approach in the 1960s.

6. From Frugality to Exuberance

6.1 Aestheticizing Asceticism. 1960s, 1970s.

What started as a response to ascetic culture and austerity politics, typically manifest in subdued formal virtuosities, abstention from material extravagance, the use of materials at-hand, and an appeal to a concrete, functional and rational credo soon assumed other interpretations some of which were quite remote from this initial understanding. The process unfolded roughly within a decade and was apparent in different aspects of design. It became evident in a more declarative handling of materials but was equally marked by formal and compositional changes. Finally, the construction approach in which the structure affected the building’s construction process and defined its overall image had also gradually assumed more sculpturally inclined gestures in which structure and infill, load bearing and non-load bearing components, were no longer necessarily differentiated. The rigorous analytical, systematized, skeletal building turned synthetic and monolithic. Correspondingly, the emphasis on expressive restraint subsided, prominent instead was an exaltation of the building’s sculptural qualities or the architect’s inimitable creativity.

Although from the early 1950s the extended use of exposed concrete (a readily available material because produced locally in Israel) received a variety of applications and finishes, some of which did not deny the handcraft techniques applied to the material however rationalized and

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400 In The Four Elements of Architecture (Published as Die vier Elemente der Baukunst in 1851), Gottfried Semper had distinguished between two buildings crafts: the framework/roof comprised of lightweight frame construction of linear components, versus the heavyweight mass of the earthwork. As Kenneth Frampton has shown, this distinction is reinforced in German language differentiating between two classes of wall: die Wand, indicating a screenlike partition and die Mauer meaning a massive fortification. See Kenneth Frampton, Studies in Tectonic Culture, The Poetics of Construction in Nineteenth and Twentieth Century Architecture, (Cambridge, Massachusetts: The MIT Press, 1995), 4-5. This sensitivity between wall and frame goes back to the ancient ways for articulating enclosure: the Greek columnar construction of discreet elements and the Roman construction of mass walls that are carved out and formed as arches.
industrialized the construction and fabrication processes had become, concrete’s expressive capacity remained largely understated. This was further apparent in efforts to promote precast concrete methods through a series of extensive studies on the subject at the Technion’s Building Research Center. Handasa We’Adrikhalut, the engineers’ and architects’ journal dedicated an entire publication for this purpose in 1964, including thorough explanations of different precast methods in Israel and abroad. Local factories manufacturing a variety of elements from entire pre-fabricated rooms, to walls and stairs integrated with wet-construction methods were noted. Allocating the majority of the work to the factory and assembling the standardized components on site was intended to increase construction efficiency, but other texts warned against unreflective mechanization and standardization overriding other questions – not necessarily

401 My contention is that even with pre-made components, architects in Israel did not abolish hand construction techniques, which admittedly got redefined. The process of bush hammering, for example, was applied to precast concrete elements as well as concrete cast in situ.

402 France and Denmark were mentioned for excellent technical skill. In France, the Camus, Logirex, Coignet and Ballancy methods were noted. In Denmark, the Larsen-Nielsen and Modulbeton factories were praised for fine quality products and automation. The Soviet Union, Czechoslovakia and East Germany were referenced for production volume. In these countries the volume of “heavy” precast construction was extensive, reaching fifty percent of intended annual housing construction.

The following texts appeared in the issue published in December 1964:
A. Alweyl, “Problems of Building Industrialization at Home and Overseas,” Hanadasa We’Adrikhalut, No. 5, Vol. XXII, (December 1964), 4-10. [Hebrew]
Housing Department, “Types of Dwellings in Buildings of Large Precast Elements,” Hanadasa We’Adrikhalut, No. 5, Vol. XXII, (December 1964), 18-19. [Hebrew]
Y. Rechter, M. Zarchi, M. Peri, “Pre-cast Housing Units in Shderoth and Mizpeh Ramon,” Hanadasa We’Adrikhalut, No. 5, Vol. XXII, (December 1964), 22-23. [Hebrew]
J. Weinstein, “Pre-cast Concrete Dwellings in Shderoth, (M.M.T.)” Hanadasa We’Adrikhalut, No. 5, Vol. XXII, (December 1964) 41-43. [Hebrew]
A. Harmel, “Building of Precast and Prestressed Concrete in the Workshop Center Givataim,” Hanadasa We’Adrikhalut, No. 5, Vol. XXII, (December 1964), 46-47. [Hebrew]
technical: “The problem is not standardization, industrialization or the use of fixed spans, but the creation of a steady philosophical foundation according to which mechanization will take place.”

The industrialization of precast concrete responded to the shortage of hand-laborers in the building industry, the need to cut expenditures and expedite the construction process. It largely considered the material as a means to an end. This functional, “down-to-business”, rational attitude saw the material for what it was but this soon evolved into the rhetorical way of looking at it.

Paralleling the effort to encourage construction with precast components, in the late 1950s concrete’s expressive potential corresponding to the artistic process of the imprint began to appear. This took two forms: a trace of construction (artistry of shuttering design) and a trace of works done by non-architects (painters and sculptors). While in the early years of statehood exposed wet-construction concrete was typically applied to the building’s trabeated structure or to select surfaces within the building (where it was either untouched after dismantling the formwork or further finished by bush hammering for example) in later years it began to gain currency in

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404 Throughout the 1950s and 1960s concrete cast in–situ largely dominated the field of construction in Israel assigning smaller precast components to certain elements in buildings. Thus, although increased mechanization had been applied on-site to wet-construction methods, its application in the sense of pre-fabrication, off-site manufacturing and on-site assembly did not seem to “take command.”


406 See comparable concepts in the arts in the use of frottage. This method appealed to the notion of leaving traces and inviting interpretation of the images obtained from rubbing an uneven sourface. Max Ernst insisted that drawing created by this method “lost more and more, through a series of suggestions and transmutations that offered themselves spontaneously – in the manner of that which passes for hypnagogic visions – the character of the material interrogated (the wood for example) and took on the aspect of images of an unhoped-for precision…” See Max Ernst, “The 10th of August 1925,” Max Ernst & others, Beyond Painting, (Solar Books, 2009), 14. First published by Wittenborn, Schultz in 1948.

407 In the Weiss Auditorium at the Hebrew University in Givaat Ram (1954-1958) the architects used a frame construction of load bearing bush hammered concrete columns. The infill between the columns that envelope the auditorium was left exposed. It was comprised of red “Shamot” bricks, manufactured in a brick factory in the Negev.
Israel within a decade and developed in roughly the abovementioned two directions. The first involved the process of construction; after the pouring of the mix into the formwork and the latter’s dismantling, the joints and planks left an indelible imprint on the concrete’s surface. The process of construction was literally documented on the (un) finished product. Unlike its less demonstrative use in the beginning of the decade, towards the end of the 1950s and throughout the 1960s and 1970s exposed rough-faced concrete – béton brut – was applied effusively throughout entire buildings, some cases bearing little variation in finish (Pl. 6.101-11). In several projects, alternating the direction of the wooden formwork imparted visual patterns having nothing to do with the building’s structure or the course of its making (Pl. 6.101-03). Although this did not necessarily defy structure it clearly indicated that a strictly rational structural methodology in concrete was integrated with a more graphical approach.

In addition, concrete began to accrue symbolic meaning tied to the question of national identity. It became part of the making of an ethos and indicated a growing expressive desire and the will to symbolize. Ram Karmi, for example, later accredited the exposed concrete in the El Al building (1958-1963) with a national overtone. Exposed concrete became a material with a message:

I had chosen concrete because it was Israeli made “blue and white” and it symbolized us more than any other economically equivalent material... It was the first experiment (after abandoning the white utopia which the white, thin, spiritual mass-less wall transmitted) to sanctify life in the difficult reality after independence, and to build with what there was not according to the dictates of utopia. The coarse and massive use of concrete not only for an effective and reliable constructive skeleton – but as a material which transmits the overcoming of daily difficulties, a nationally unifying material, as is, without embellishment, a material well grounded in the soil of reality of the rationing period looking toward a better future.408

In the coming years, Karmi would return to this notion in which concrete was associated with Israeliness, its roughness and honesty, “without embellishment,” resonating (as he was well aware) with the emblematic outer “roughness” and inner “complexity,” the “straightforwardness,” even “bluntness” of the Sabra, the informal designation for the (rooted) Jew born in Palestine which applied to his generation. Israeli architectural historians have also claimed that the architects of Karmi’s generation, the generation of exposed rough-faced concrete, used the material despite or because it had elicited so much antagonism. In many cases, its wide employment coupled with unrestrained formal gestures in the later 1960s and 1970s was associated with military structures prompting Amiram Harlap’s perspicacious essay: Reinforced Concrete, on the Security Syndrome in Israeli Architecture (1982).

By virtue of treating the formwork as a mould, the casting of concrete came closer to other forms of artistic casting. Related to the concept of the synthesis of the arts, building in exposed concrete offered an opportunity at the level of process to fuse art with architecture (Pl. 6.1 12-16). Earlier modern architecture’s use of murals already embodied a sense of this synthesis, while still preserving the autonomy of each artistic medium. Plastically envisioning the building or parts of it as a mould introduced this synthesis at an earlier phase of construction and somewhat blurred this distinction. It also gave the impression that concrete was no longer only regarded as a mass-produced or purely industrialized material but one literally bearing a unique imprint.

For an account on Sabra culture and mentality see: Oz Almog, The Creation of the New Jew, the Sabra, (Berkeley: University of California Press, 2000), 210-219. Zvi Efrat quoted Ram Karmi regarding the use of exposed concrete, in which Karmi maintained that “within the general International Style, a new Israeli, Zionist, Sabraist, non-intellectual, very physical Danzigarian, Cannanite, well-rooted generation emerged here. We wanted to be real. The International Style wasn’t real. For us, the concrete was an Israeli material, the concrete gave the sense of stability: when you plant it in a place, no one will move it from there…” quoted in Zvi Efrat, The Israeli Project, 107-108. Sharon Rothbard, Avraham Yasky, Concrete Architecture, (Tel Aviv: Babel, 2007), 481-498. [Hebrew] Amiram Harlap, “Reinforced Concrete, on the Security Syndrome in Israeli Architecture,” Musag, 8, (1976), 13. [Hebrew]. In IDF military codes, concrete structures are much more resistant and durable to military attacks. It is not unreasonable that this code infiltrated the culture of design.

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While this was somewhat removed from what I have referred to as the early phase of Israeli brutalism, or from early British brutalism à la Peter and Alison Smithson, it was clearly informed by the transformation in Le Corbusier’s post-war work. It indicated that concrete could indeed retain its image as an industrialized “rational” material but that it could also be handled with closer affiliation to its craft-based origins. Le Corbusier’s concrete work at the Unité d’Habitation in Marseille (1947-1952) exerted a significant amount of influence on Israeli architecture, as it did on architects working in other parts of the world.412 According to Banham, the innovation of the Unité was not in its vast dimensions, its sectional organization or its sociological aims (although these too were a significant inspirational source for the Smithsons) but rather in the fact that in this work “Le Corbusier had abandoned the pre-war fiction that reinforced concrete was a precise ‘machine age’ material.”413 Whitewashing the concrete, Banham maintained, had further reinforced this “fiction” since it covered the material’s flaws and imperfections.414

As argued by several architectural historians, although not necessarily predicated on cutting edge technology or mechanization, Le Corbusier’s celebrated cement rendered, whitewashed modern projects from the 1920s resembled machine imagery and were thereby taken to represent a machine aesthetic. The concrete could have been replete with blemishes lurking beneath the lime-washed rendering of the surface without hindering this illusory impression.415 For clarity purposes it should be noted that whitewashing too was hardly modern.

412 See Aba Elhanani, “Our Contribution to Modern Architecture,” Handasa We’Adrikhalut 19, (May-June 1961), 136. [Hebrew]. Banham acknowledged Le Corbusier’s influence on British New Brutalism in 1966 as did the Smithsons earlier. Whether the term brutalism derived in part from Le Corbusier’s description of the concrete work as “béton brut” is not of great significance although its usage throughout the world and in Israel has been typically associated with this source. For an account of the origin of the phrase see Reyner Banham, The New Brutalism, Ethic or Aesthetic, New York: Reinhold, 1966, p. 10.
414 Ibid.
415 As Alan Colquhoun has noted: “the buildings of the Rationalist Movement were, whatever their mystique, built largely of traditional materials. The only real innovation brought into use in the early twentieth century was tensile
Early folk buildings were far from being instances of a machine aesthetic. In any case, planarity, regularity and “whiteness” had come to be associated with industrialized, streamline construction. But as has been stated before, drawing a deterministic causal line between technological advancements and the emergence of early modern architecture was, to some extent, the product of misleading historiography. Although such advancements certainly affected modern construction techniques, the pristine images of many modern buildings were more likely inspired by the formal vocabulary of cubism.\textsuperscript{416} The Smithsons and Banham had acknowledged this in the 1950s. Ram Karmi reiterated the same idea when interviewed in 1974 on brutalism. As indicated in his response, the idea of “honesty” had continued to play a seminal role in the discourse on architecture:

\textit{The brutalists maintained that old technological methods were used for the construction of buildings which bore a new style or, rather, pretended to look new, as Le Corbusier’s first buildings which were made of rather simple methods but whitewashed to look as if they had just come out of the factory. Brutalism rejected this method, sought to work with new techniques and demonstrate the distinctiveness of these techniques.}\textsuperscript{417}
Reading Le Corbusier’s early repertoire, however, as solely charged with technological positivism or technological symbolism was only a partial and misconstrued view of his work. In the realized Villa Mandrot in France (1929-1931) and unrealized Maison Errazuriz in Chile (1930) as in several others, local rough stone was incorporated in the building. In Chile, a synthetic structure of reinforced concrete but mostly load-bearing rubble stone and timber construction was intended. From early on, Le Corbusier’s range of projects reflected a recalibration of his earlier machine rhetoric and material abstraction frequently accompanying it. The inclusion of materials typically considered regional or “primitive” was analogous to a preoccupation with trans-historic architectural themes, which brought him to consider classical architecture, regional models and typological analyses. Although this was already evident in his inter-war thinking, it became particularly pertinent in the context of post war Europe in which the promise of progress and the fruits of mechanization revealed their dialectic nature – their latent anti-humane and devastating consequences when misused as means for mass destruction. The Dialectic of Enlightenment, so to speak, made the coarse appeal to a “machine aesthetic” and to an architecture predicated solely on a technological élan less relevant and less desirable (though arguably not for Banham).


420 Banham predicated this change on more concrete terms arguing that when post-war building economics could not permit extravagant material displays and unattainably high priced construction expenditures, and when the pristine whitewashed puristic objects showed signs of weathering and decay, a turn to a different kind of materiality was invoked. Banham had noted that for a housing project in Marseille shortly after the war, assuming high quality concrete finishes, as those attained by August Perret in the inter-war period was an unfeasible expectation. Le Corbusier, however, was not responding to an economic or practical constraint. He was seeking roughness and surface materiality also as an aesthetic value.
Ultimately, the example of the Unité pointed to an appreciation of the wide range of applications and finishes concrete construction had offered. The material could assume a fine finish if cast in metal or polished wood boards with highly sophisticated and costly construction techniques (better-quality concrete was later attained in the following Unités which had elicited Le Corbusier’s disapproval for being too finely finished) but, on the other end of the spectrum it also had “primitive” uses, applied more like pisé construction with unskilled labor. It could be decidedly industrialized but also slip back to its craft and earthbound origins and, as pointed out by Peter Collins and more recently by Adrian Forty, the associations tied to its many forms, finishes and structural capacities were equally varied and culturally conditioned.421

In the Unité d’Habitation in Marseille the initial goal to cast concrete as similar as possible to the smoothed taut surfaces of plaster led to the reverse discovery of the inevitable imperfections of the material. The imprints of the shuttering coupled by perceptible flaws in workmanship were almost impossible to rectify. Exposed concrete construction left little room for tolerance, prompting Le Corbusier to convert this implicit fault into an artistic potential. The imprint of the formwork and, in general, the malfaçons évidentes typically regarded as threats to a fastidiously faultless result now became valued sources for investigation and experimentation.

One of the most important things pointed out by Collins is that pisé (from the Lyons region) was a key origin of insitu wall construction.
For the associations exposed “brutalist” concrete had assumed in Sao Paulo, Brazil through the work of communist architect Joao Batista Vilanova Artigas, see Richard Williams, “Brazil’s Brutalism: Past and Future Decay at the FAU-USP,” in Mark Crinson and Claire Zimmerman eds., Neo-avant-garde and Postmodern, Postwar Architecture in Britain and Beyond, (New Haven and London: Yale University Press, 2010). 103-122. According to Williams, Artigas’s use of poorly finished concrete and his seemingly precarious structure of massive roof hanging on slender tapered columns (in the words of Artigas “using heavy forms, getting close to the earth, and dialectically, negating them”) at the FAU USP subverted expectations regarding the nature of materials. Artigas’s concrete brut made use of the aesthetic of poverty in order to reflect its surroundings and pose a direct challenge to political order.
For brut finishes in exposed concrete in Japan see Jonathan M. Reynolds, Maekawa Kunio and the Emergence of Japanese Modernist Architecture, (Berkley, Los Angeles, London: University of California Press, 2001). Specifically the Fukushima Education Hall (1955-56), which demonstrated a shift in thinking in Japan in which “concrete was used in a more assertive, sculptural fasion.” References to Le Corbusier’s Ronchamps Chapel and his designs for Chandigarh were noted but the rough concrete was also representative of rural Japan. Compare with Kyoto Kaikan (1960), which was a synthetic integrative work. It had a much richer palet of concrete finishes, employed precast panels, smooth exposed concrete surfaces, carefully rusticated concrete surfaces and abstract murals molded into the concrete. (pp. 180-184, 188-195).
Concrete’s intrinsic expressive power in recording the process of its construction opened new routes for Le Corbusier’s creative capacities and the term brut, which he applied to the finishes, now invoked extensive poetic interpretations.422

Le Corbusier conjured concrete almost as a new material, exploiting its crudities, and those of the wooden formwork, to produce an architectural surface of a rugged grandeur that seems to echo that of the well weathered Doric columns of temples in Magna Graecia – it was not a question of “Architecture is that which makes magnificent ruins”, the concrete work at Marseille started as a magnificent ruin even before the building was completed.423

The denial of technological representation, or what was presumed as such, did not entail the renunciation of technology. The building was certainly not less “technological” than one in which white plaster coating was applied as a finish.424 Interestingly though, the mentioning of architectural ruins was symptomatic of a larger issue at stake which I have briefly touched upon.

422 According to Roberto Gargiani and Anna Rosellini, Le Corbusier had already applied the term in the mid 1920s to indicate materials not finely finished. See Roberto Gargiani and Anna Rosellini, Le Corbusier, Béton Brut and Ineffable Space, 1940-1965, Surface Materials and Psychophysiology of Vision, (Switzerland: EPFL Press and USA and Canada: Routledge, 2011), 57.

As is well known, the sources for this recalibrated approach to materials were not strictly architectural. The idea of exposing raw materials in their unpolished “brut” state was parallel to the ideas of Art Brut put forth by Jean Dubuffet in his appeal to “primordial”, “uncensored”, “spontaneous” art, unmediated and “unspoiled” by the conventions of “high art” or “artistic culture.” Dubuffet’s emerging anti art and his early theoretical texts on Art Brut from the late 1940s were known to Le Corbusier (See Roberto Gargiani and Anna Rosellini, Le Corbusier, Béton Brut and Ineffable Space, 1940-1965, Surface Materials and Psychophysiology of Vision, p. 58.) It has been suggested that in his appeal to the roughness, crudeness and unaltered product of exposed concrete, and in his fascination with the material’s potential recording of its fabrication methods (Le Corbusier would later directly acknowledge the béton brut aesthetic in the fifth volume of the Oeuvre Complète published in 1953. Le Corbusier, Oeuvre Complète, 1946-1952, Vol. 5, 1953.) Le Corbusier charged the process of exposed concrete construction with similar artistic values to those championed by Dubuffet’s Art Brut in which, notably, aesthetic value had been unmistakably intertwined with ethical foundations. For the ideas and evolution of Art Brut see: Lucienne Peiry, Art Brut, The Origins of Outsider Art, (Paris: ADAGP, 2001). And Michel Thévoz, Art Brut, (New York: Rizzoli, 1976.)

Contemporaneous artistic and architectural currents developed in England. The deviation from conventional aesthetic theories replacing the traditional concepts of beauty with a more “authentic” unmediated approach to art marked some of the themes informing the Independent Group artists. In the group’s exhibition at the Institute of Contemporary Arts in London in 1953 an installation by Alison and Peter Smithson, photographer Nigel Henderson and sculptor Eduardo Paolozzi (an established artist in Art Brut circles after his work had been included in Michel Tapie’s influential publication Un Art Autre 1952) titled Parallel of Life and Art demonstrated a multivalent, anti-academic stance and portrayed all aspects of life without hierarchy or traditional classifications. Images from science and industry were juxtaposed to anthropological studies of neighborhoods, photographs of ruins and children drawings. The usual differentiation between “high” and “low” art was replaced by an inclusive approach, and the division between art and life was refuted in an effort to render the two inseparable.


424 For a detailed descriptions of the effort put into the concrete construction see Roberto Gargiani and Anna Rosellini, Le Corbusier, Béton Brut and Ineffable Space, 1940-1965, Surface Materials and Psychophysiology of Vision. 18-31.
Along with an appeal to present reality, the problems it posed and the new technologies available to architects for their solution, the concept of technology as the determining factor in the development of architecture and its formative role in shaping the building’s outer image was increasingly gaining criticism. It was precisely the association with ruins and the reflection on lasting architectural concepts (such as types), transcending the immediacy of the present though not avoiding it, which began to inflect brutalism from its technological-Banhamian Architecture Autre orientation towards its position in the wider contexts of the architectural traditions. It is important to emphasize that in Israel, throughout the different construals of brutalism, an evocation of tradition – not traditionalism – had often oriented the work of local architects, who sought a different appeal to history. They did not approach history as the warehouse of past styles but recognized that creative production could not solely depend on the expressions of novelty and progress as it was also occupied with trans-historic themes. As has been argued in previous

425 Even the British brutalists whom Banahm had forcefully promoted as extreme anti-traditionalists later showed signs of what he understood as traditionalism, incompatible with his vision for the movement. In The design for a prototype house for the year 1980 - The House of the Future for the Daily Mail Ideal Home Exhibition, which took place in London in 1955-56, the Smithsons’ creative sources came from industrial, mass-produced homes and automotive products and the “low” imagery of consumer society. Resembling the later interests of Robert Venturi and Denise Scott Brown, they turned to ordinary, non-academic sources and explored with a tint of criticism the technologically driven, consumer oriented, “Americanized” plenitude. In the scarcity of the 50s and still bearing the wounds of the war, the “wish images” of the American opulent society and “pop images” were indicative of “a way of life”. They were concrete and ordinary materials taken from everyday living which architecture, once stripped of its grand manifestos and abstracted idealities, was called to address. The Smithsons’ moment of technological utopia was, however, short-lived. Fractures began to appear in the fascination with popular culture as an unmediated connection to the people and their real-life interests, while the critical studies of mass-culture began to portray it as a controlling agency. At this moment, applauding technology and the rational-house and house-owner are dialectically confronted with a satirical representation of man-as-machine imagery. For the Smithsons the high point of technology is coupled with an appeal to “primitivism”, the “fundamentals” of architecture and its archeological foundations. Their exhibit Patio and Pavilion for the exhibition This is Tomorrow (1956) reflected on architecture’s eternal past. It established the past as an irredeemable but, nevertheless, persistent force for the discipline of architecture. Excavated objects and remains of artifacts juxtaposed with brut sculptures and photo-collages evoked a rejection of the aesthetic of plenty. The exhibit deemed the discipline’s preoccupation with the present and the future insufficient and redeemed the reliance on memory and history for the sake of contemporary creative action. It is not difficult to see why this exhibit stimulated Banham’s disillusionment with what he took to be the New Brutalism, with its initial technological promise and objection to historical dependency of any kind. This is Tomorrow in which the Smithsons, Henderson and Paolozzi contributed the section Patio and Pavilion described by the group as “necesities of human habitat…” was mentioned by Banham as one of the first indications that the brutalists “had abandoned their extreme anti-traditionalist position of 1953.” “Such an appeal to fundamentals in architecture nearly always contains an appeal to tradition and the past…” A similar disillusionment from what he understood to be the New Brutalism is expressed in the end of his monograph in the section titled “Memories of a survivor”. See Reyner Banham, The New Brutalism, Ethic or Aesthetic. 65 and 134. For the cultural atmosphere and mass culture in England after the war see also Anne Massey, The Independent Group, Modernism and mass culture in Britain, 1945-59, (Manchester and New York: Manchester University Press 1995.)
chapters, this was particularly pertinent in the context of trying to situate modern architecture in Palestine-Israel. The recourse to typology as a design method (discussed in chapter 1) was a specific case in point. In any case, the appeal to the ruin was not as a hard image (such as the indigenous Arab house in the case of Israel) in which a literalism of the past is brought into the present. Nor was the ruin perceived as an unlimited historical duration of climatic processes. The ruin, rather, was a material fact that attested to the fusion of the two, or in Latourian terms, it was the embodiment of where nature and culture meet.

However elusive brutalist associations had become, with regard to historical approaches in Israel as elsewhere, the coarse textures appearing in some of these projects, and the same “rough” handling of materials in several of Le Corbusier’s post-war projects had misleadingly become the principal qualities associated with brutalism, reflecting a misunderstanding of its earlier meaning.

Towards the end of the 1950s in Israel the ideas of frugality, restraint and modesty, which had guided the architectural discipline towards an architecture “without rhetoric”, started to assume rhetorical content. Yaakov Rechter and Moshe Zarhi’s Nitzanim School in Tel Aviv (1960-1962), maintained the classification of load bearing elements and non-structural infill and

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426 This was a repeated theme in post-war architectural discourse elsewhere as well grappling with the purported but misinterpreted anti-historical stance of modern architecture. As van Eyck phrased a different appeal to history in 1959 in Otterlo: “Each period requires a constituent language – an instrument with which to tackle the human problems posed by the period, as well as those which, from period to period, remain the same. i.e those posed by man – by all of us as primordial beings. The time has come to gather the old into the new; to rediscover the archaic qualities of human nature, I mean the timeless ones.” Aldo Van Eyck, (Otterlo Meeting) in Team 10 Primer, ed. Alison Smithson, (Cambridge, Massachusetts: The MIT Press, 1968), 20.


428 Banham was completely aware of the diverse manifestations of brutalism and the different associations the term has evoked since its inception. This was reiterated by Israeli architectural historian Zvi Efrat, who claimed the term ended up being extremely supple since it was applied to a wide range of projects sharing little in common. See Zvi Efrat, The Israeli Project, Building and Architecture, 1948-1973, (2004), 189-195. [Hebrew].

429 The Smithsons had acknowledged this fact in 1957: “Any discussion of Brutalism will miss the point if it does not take into account Brutalism’s attempt to be objective about ‘reality’... Up to now Brutalism has been discussed stylistically, whereas its essence is ethical.” See Alison and Peter Smithson, “The New Brutalism,” Architectural Design, (April 1957).
used exposed concrete as a range of finishes, but they also used structural elements in a manner exceeding their initial structural requirement (Pl. 6.1 17,18). Images of Japanese concrete architecture found their way into the building but, while in Japan a long tradition of wooden construction was recalled in concrete construction in which the latter often had representational traces of the former; see for example, the east building of the Kagawa Prefectural Government Office by Kenzo Tange, completed in 1958, in Israel wooden joinery was not part of the country’s heritage.\textsuperscript{430} Such borrowings received criticism for their sole appeal to imagery. In this sense they were a simulation of a representation thus further removed from the initial referent. As critically noted by Elhanani:

\begin{quote}
The importers of Japanese architecture to Israel were sadly caught up with external characteristics alone and copied the effects of protruding and intersecting beams, legacy of wood technique, which does not exist in Israel, and if it was necessary for the Japanese eye – for us it is mere ridiculous and superfluous decoration. Thus it so happens that quite intelligent Israeli architects “glue” beam segments onto gables for the purpose of transforming a rather pleasant building into an oddly Japanese one.\textsuperscript{431}
\end{quote}

This representation of dry construction methods appeared in several other buildings where the image proposed was not necessarily predicated on the structural method used. (Pl. 6.1 19,20). Other deviations from previous architectural precepts ensued. The expressively restrained, functional architecture of the early 1950s typically bore orthogonal forms with uniform facades, usually in a concrete frame sheathed with some form of curtain wall (in several cases, the frame with panel infill was legible on the building façade). In the 1960s the notion of functionalism had gone through a kind of conversion, which ultimately led to reverse formal interpretations, and the

\textsuperscript{430} As Kenneth Frampton points out, Gottfried Semper has shown the occasional transpositions of modes of construction from one structural rationale to another for the sake of retaining traditional symbolic value. Auguste Choisy has also suggested that the Doric order was a reconciliation of trabeated wooden construction and the structural demands of masonry construction. See Kenneth Frampton, \textit{Studies in Tectonic Culture, The Poetics of Construction in Nineteenth and Twentieth Century Architecture}, (Cambridge, Massachusetts: The MIT Press, 1995), 4-6, 58.

\textsuperscript{431} Aba Elhanani, “Tendencies in Israeli Architecture,” \textit{Handasa WeAdrikhalut} 20, (September-October1962), 314. [Hebrew]
concept of unassuming expressivity (in the sense of Ariel Sharon) was consequently replaced by increased formal plasticity, ingenuity, and extra-ordinariness. One of the first buildings embodying this change was Dov and Ram Karmi’s El Al building in Tel Aviv (1958-1962) (Pl. 6.1 20,21).

The building was a private initiative promoted by entrepreneur Arieh Pieltz (who later appointed Ram Karmi architect of his colossal Tel Aviv Central Bus Station, also built by the same construction company – Solel Boneh). Its program ultimately included commercial uses and office space, though in its earlier stages it was also intended to incorporate dwelling units. Located on Ben Yehuda Street, an active location for commerce and business in the 1930s, the project was part of a wider municipal program in the 1950s intended to reinvigorate the street after its centrality subsided, specifically in the area parallel to the entertainment zones on Dizengoff Street and the hotel district beginning to develop on Hayarkon Street. Although private entrepreneurship may have played a role in the building’s divergence from previous national ascetic principles, pointing to the increasingly powerful role private enterprise would play in Israeli development initiatives, its formal expressivity also indicated that Tel Aviv was seeking to market itself as a central platform for business corporations, though markedly avoiding the tedium such uses typically arouse.

In many parts of the world, the repetitive, high-rise, glass-incased office buildings coupled with Functional City zoning principles had created vapid and dull urban areas. At this point, before glass received the many different finishes and treatments it bears today, its transposition in the form of a curtain wall to Israel was also climatically unsound and the architects sought to adapt the model to the unaccommodating Israeli climate. In an interview with Ran Sh’hori on brutalism a decade after the El Al building was complete Ram Karmi explained

432 Eliyahu Tauman, “In conversation with Ram Karmi, “El-Al Building, Tel Aviv,” Architектура 1, (March 1966), 4-13. [Hebrew].

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his appeal to thickened walls, which later became frequent in his buildings. They reflected his
generation’s skeptical stance towards the “internationalism” that had been a certitude of one
strain of the modern movement. He argued that the thin wall comprised of structure and infill,
which had evolved into the glass curtain wall, was inadequate for the Israeli climate. Seeking to
increase the mass of his walls and particularly the treatment of the apertures, he drew upon the
Arab house’s rendition of the aperture, and maintained that because the opening was placed
amidst a thick wall light filtered in gradually consequently moderating the transition from exterior
to interior. While certain currents in modern architecture treated the aperture in a reductionist
fashion, the construction of the Arab house, Karmi maintained, reflected the different tones and
intensities of light and shadow. Recounting Le Corbusier’s self-correction of the glass wall with
the application of the sun breaker as well as the influence of Brazilian architecture on solutions in
Israel (reiterating his father’s text on the sun breaker published in the early 1950s), Karmi
explained that the re-thickened wall had also reestablished its presence and generated spatial
possibilities by encouraging its occupation and appropriation by the users. “The aperture assumed
other functions – it was also a table, a sofa and a bench. The aperture was personalized and could
be interpreted in various ways…” In this sense, Le Corbusier’s famous statement that the
whole history of architecture revolved around the history of apertures framed Karmi’s argument.

But the special case of glass’ unsuitability was indicative of a wider issue. The
paradigmatic shift in the El Al building and in the accompanying discourse in Israeli architecture
reflected the pejorative meaning that the ordinary and the banal had assumed once coupled with
unmediated standardization and uniformity. It was manifestly opposite from the meaning these

433 Although Sert, for one, had maintained that apertures always had a triple function of providing light, ventilation and
view. This point was expressed in David Leatherbarrow and Mohsen Mostafavi, Surface Architecture, (Cambridge:
MIT Press, 2002), 76. The authors referred to Sert’s text “Windows and Walls: An Approach to Design,” Architectural
Record 131, no. 5 (May 1962), 132-133; reprinted as “On Windows and Walls,” in Knud Bastlund ed., Jose Luis Sert:
434 Karmi’s interview by Ran Sh’hori titled “Brutalism” was published in the journal Tziur WePisul 6-7, (1974), 28.
[Hebrew].
very same terms had in the minds of Israeli architects earlier whose appeal to ordinary materials at-hand, rational construction methods, standardization and use of mass produced components was linked with social ethics, as it had been in the 1920s in Europe. But things began to change once technology as a means for more effective manufacturing and construction had been replaced by technology as the substance of the building’s image itself. Architecture began to offer a general answer to specific problems. It became subordinated to market and economic reasoning and to the *technique* of its manufacturing in the narrow sense of the word, yielding unqualified repetition, standardization and uniformity with no ability for adaptations (what I have previously termed a certain level of craftsmanship). When “an ‘automaton’ had been created, capable of executing certain processes on its own,”435 and a mere additive approach of ready-made building components forsook plastic and expressive intentions, the imperative dimension of architecture as context specific and its essential symbolic stature became increasingly jeopardized.

Zvi Efrat has argued that the El Al building was a reactionary impulse against the “bureaucratic grayness of institutional Israeli architecture.” Though this may be the case, it was only partly so, since several “institutional” buildings had successfully employed mass produced elements but did not relinquish the necessity for their adjustment (see section 5.2). Efrat also maintained that the building was a statement against the “unbearable technological triviality of commercial architecture”.436 Building on his point further, I would suggest that the building took a stance against the output of mass building markets, predicated on prototype structures that had become a burden on the urban fabric. The El Al building, that is to say, epitomized the critical reaction towards techno-scientific functionalism, as it was understood by figures like Hannes Meyer. It was a reactionary response against uncritical standardized design methods, which had stripped architecture from its quality of uniqueness. Since the ordinary was now coupled with

streamline elements and entailed the rejection of any form of craftsmanship intended to shape the building for its specific site and use, several Israeli architects sought to reassume a “will to form”.

In the Judges’ statement awarding the architects the Israel Rokach Prize in 1966 this different sense of “ordinary” is assumed and, with it, an appreciation for the divergence from it:

Like the general direction in the world, in the last decade we have also had an increase in office buildings. These large-scale buildings have started to occupy large parts of our city, to the point where they may define the face of Tel-Aviv quite considerably. The question henceforth is: shall we employ technological solutions alone and fill our streets with glass boxes, lacking expression, and almost identical, or shall we embark upon the search seeking to enrich our architectural style and urban landscape?

In this sense the El Al building has a pioneering and important role in our city’s building. It is proof that even an office building, the function of which is simple and common, and within the limitations of commercial building, does not necessarily have to result in ordinariness [in Hebrew meaning also mediocrity] and anonymity.\

Within a decade, ordinariness, anonymity and restrained expressivity had thus assumed negative associations, instigating the pursuit of a more plastically inclined expressive style. Although the El Al building was still predicated on a structural separation between load bearing and non-load bearing components (Pl. 6.1 22), the prominence of the frame structure as a resolute constituent in the overall image of the building waned. Ram Karmi later linked this change to budgetary reasons: “the building marked a transition in Israeli architecture the essence of which was the redistribution of the building’s budget from its structure to its electrical and technological systems. Prior to the construction of this building, the structure assumed eighty percent of the budget and today it reaches twenty percent only.” Of course the aesthetic decision to sheath the structure and reveal the “systems” had little to do with monetary incentives. Echoing the idea of transients and fixes, servants and served which were concurrently informing the work of Kahn,

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the Smithsons, the Metabolists and others, Karmi sought to distinguish between the load bearing wet-concrete structure and the typically dry-construction envelope which had included pre-cast, ready-made and, theoretically, changeable concrete elements. The load bearing reinforced concrete structure was confined to the interior of the building while the exterior “skin” was “freed” to assume its own expressive syntax. As Karmi has maintained:

*The reinforced concrete structure freed the walls from their load bearing role and allowed their transposition into portable partitions which can be disassembled or assembled upon request; from the moment the building’s envelope became independent of bearing the space interned, it was free to express the different functions that constitute the building, allowing the building to communicate itself in a direct and expressive manner... the El-Al building presents an image which has broken down into elements, in which each element is free to assume its characteristic and independent form, and together they try to join into a composite image the essence of which is the dialogue between its parts. This is a process of decomposition, which wants to express the complexity within the building...*

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Architectural honesty under Ram Karmi’s knack for formal plasticity now meant a vocabulary in which distinct functions and building components assumed their own expressive form. Resembling the contemporaneous Engineering Building at Leicester University by James Stirling and James Gowan (completed in 1963), a reference Karmi acknowledged, it manifestly abjured the expressive restraint advocated and practiced earlier and sought to regain the building as an inimitable symbolic object while still maintaining its stand as a product of an industrial system. Enclosed and exposed stair shafts, the vanity shaft and the different sun protection pre-cast components were separately articulated, seemingly continuing the syntax applied in the Ort Syngalovski School but in a more declarative, even exuberant manner which would consequently mark Ram Karmi’s architecture in the next several decades (Pl. 6.1 06-11).

439 Ibid.
The previous objectives of Israeli architecture shifted, consequently initiating the second phase of Israeli brutalism. They now included the desire to avoid buildings “lacking expression and almost identical” and reclaim architecture’s symbolic faculty and formal plasticity. The quest for an architecture “connected to the land on which it stands”, was also a professed earlier goal in Israeli architecture, but then it meant that architectural creation is not a process in which the architect forms his work ex-nihilo, but rather works within the opportunities that are given. Invention and innovation were proposed as reliance on what exists and its potential restructuring. In the 1960s, this expression indicated a preference towards materials that give a real and symbolic sense of weight and permanence and towards forms that generate solidity and stability. The monolithic, heavy syntax of poured in place concrete also tried to reinforce the fact that the new state would be around for a long time to come. This was likewise evident in the emblematic meaning exposed concrete began to assume as a “national”, “unifying” material. The corrective reaction against the tenuous “mass-less” structures of thin wall and glass and the return to the re-thickened wall was also grounded in climatic suitability reflecting the broader rejection of the commodification of architecture via the international style. Examined analytically, one may conclude that the evolution of the wall went through a circular process; from the thick load bearing stone or brick wall, through the structural frame and infill, to the complete separation between structure and envelope (the latter required only to sustain itself) architects now began to seek some of the qualities this development had forsaken. The first stage of reverting to the wall’s thickness was by employing a separate system of sun breakers at a range of sizes and materials. The second stage literally entailed the thickening of the wall itself.

Finally, the difference between the first and second phases of Israeli brutalism was articulated in the celebration of form linked in the second phase to the architect’s innovative impulse and plastic ingenuity. This concept was expressed in the judges’ statement for the
Rokach Prize affirming that “the building is a result of the struggle between limitations of place, use and budget and the architect’s creative forces and his artistic drives…”

The enforcement of “objectivity” by modern architecture in the 1920s and historiographers of the modern movement like Sigfried Giedion may have been naïve and glib, as the design methodologies employed by many modern architects in the 1920s and 1930s did not relinquish “subjective” intent having little to do with material reality alone. Nevertheless, in Palestine-Israel the idea of “objectivity” was seminal since in its quest to rationally respond to present requirements it also involved restricting the architects’ “subjective” impulse. The 1940s and 1950s intent for “restrained expressivity” became its overt opposite in the 1960s.

The Rokach Prize award (1966) took place during a particularly vocal debate in Israeli architecture concerned with ideas about the ordinary and the banal versus the more expressive. A few months after the award statement, Aba Elhanani published a critique of the recently completed Tel Aviv City Hall (1956-1964) precipitating the dispute. His text elicited vehement comments from artists, writers and publicists across a range of artistic disciplines. Framing his argument was his conviction that modern architecture failed to produce successful modern monuments and that there was a conspicuous “architectural crisis” in the design of public

441 Aba Elhanani, “Tel Aviv City Hall,” Haaretz, 6.24.1966. [Hebrew]. The text was published in the art and literature section of the paper which was edited by Benjamin Tamuz, a writer, editor, painter and sculptor. In 1957 Tamuz collaborated with Elhanani in the design for the monument for the fallen pilots in Gan Haatzmaut in Tel Aviv. Tamuz was a former Canaanite and close friend of Yitzhak Danziger. Both will be discussed in the next section. The text and the following debate were displayed in an exhibition on Aba Elhanani in the Architects’ Association curated by Zvi Elhayani in September 2009.
442 Framing the text was Elhanani’s conviction that modern architecture failed to produce successful modern monuments. He mentioned the United Nations Headquarters in New York (1948-1952) and Lewis Mumford’s critique of the project in which the latter argued that the Secretariat building had overpowered the General Assembly building thus thwarting what the United Nations stood for, deeming it not an international parliament but a stronghold of bureaucrats. Elhanani mentioned three typical methods with which architects sought to overcome this crisis. In the first, elements of past architectures, usually columns, were used to symbolize public stature, as in Lincoln Center (1955-1969) and in Joseph Klarwein’s proposal for the Israeli House of Parliament (1956-1966). In the second, architects reverted to formal extravagance successful, according to Elhanani, only with extraordinary architectural talent. The third option had to do with composition, either between the different functions of an institution or its relationship to open public space.

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buildings, an argument which in 1943 had prompted the manifesto *Nine Points of Monumentality* co-authored by Giedion, Sert and Léger and Giedion’s text *The Need for a New Monumentality*. Acknowledging that City Hall was essentially an office building thereby bound to the iconographic imagery such a function entailed, Elhanani also maintained that this type of building was obligated to be representational pointing to its civic, public stature as “the most important building in the city.” He argued that the building’s architect, Menachem Cohen, managed to bridge the chasm between these two (mistakenly divided) concepts of architecture – the utilitarian and the symbolic – by turning to a compositional design method. Although an existing road separated the building from an adjacent public square, the plan overcame this obstacle by establishing a wide platform hovering above the road linking the building to the public square. As Elhanani has written:

> The building seems to extend its arms towards the public square thus the architect achieved a desirable symbol... the front platform softens the office building’s severity and bridges between government and civilians. This very link removes the building from the category of an unspecified office building and turns it into a clear public building, a building for the public, which also belongs to the public... Herein lay an architectural achievement as well as an urban one.

The building’s orthogonal form and its overall dimensions were credited for creating a humane image for the citizens of Tel Aviv “who are not keen on authority”. Although Elhanani did argue that the design of the facades tended to suffer from over-simplification missing the opportunity to extract them from the “routine and the ordinary,” his overall impression deeming

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444 Elhanani contrasted this approach to what he considered futile attempts to instill civic grandeur through formal virtuosities, which he attributed to Bat Yam City Hall, planned collaboratively by Zvi Hecker, Alfred Neumann and Eldar Sharon (1960-1963).

the building “an important and impressive building commensurate with human dimensions, a building which will come to be liked by its citizens so long as its occupants will remain moderate, modest and humane like the building itself” triggered heated attacks.

Yaakov Rechter noted that Elhanani had “encouraged ordinariness” (the equivalent word in Hebrew, as in English, also meaning mediocrity) stemming from “a fundamental fear of novelty and independent and personal experimentation” which, Rechter believed, characterized many artistic fields in Israel hesitating to accept “anything new, fresh and non-conventional.”

“There is something paradoxical in the fact that a new state, predicated on a lack of tradition in most of the artistic fields, is so puritanical and provincial in its approach to these fields.” He further maintained that, “the fear of bold individual experiments, even if they are occasionally accompanied by failure, will further push us towards ordinariness mediocrity within which we are submerged in so many aspects of our culture.”

Putting in abeyance the fact that Rechter overlooked the modern architectural traditions in Palestine-Israel in which his father and his father’s generation took part before and after the establishment of the state, his claims resonated with the parallel debate on architectural education at the Technion, a faction of which, according to Elhanani, was certainly promoting “primadonnism.” Elhanani’s acerbic retort to Rechter’s text appeared a week later. On the Importance of Ordinariness in Architecture, published on July eighth, 1966 he cynically questioned when “new” and “fresh” had become positive attributes for art and architecture. As he has written:

*Is it not actually in the habit of ‘provincials’ to capture anything ‘new and fresh’ even if it is imported to our region from afar? Only provincials crave the*

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448 The debate in the Technion was addressed in Yohanan Ratner’s text “Educating Architects in Israel” published in Handasa WeAdrikhalut 20 (September-October 1962), 374. [Hebrew]. Ratner, like Elhanani, recalled Philip Johnson’s pursuit of “exciting” architecture. He claimed that while this was not necessarily negative, and that “exciting” could entail working with new materials and new construction techniques for the purpose of finding new solutions, he also thought it became “dubious” when pursuing formal shapes “for their own sake.” In this way “architecture stoops to the low level of individual glorification, or transient fashions.”
products of a passing fashion from the big city, as a novelty, the last word of the mode. Are ‘new’ and ‘fresh’ actually positive attributes for a work of art? I do not argue they are negative, but should we prefer the value of ‘new’ to the value of ‘good’? I require art to be good and of-its-time. This last measure does not mean ‘the latest fashion’ but the style of the present period and, as is well known, a period is not a season, just as a style is not a fashion.

The content of the text was extensive and touched upon the larger question of art and industry, or rather art in the accelerated presence of technological advancements and the consequential historical notion of art in the service of industry – applied art. Suffice it to say that Elhanani drew a connection between this divide and the surge of “fashions” which he persistently differentiated from the notion of style. The emergence of a new style, he maintained, was a long-drawn process tellingly started by “geniuses” and developed by their descendents. When a previous style had been exhausted (no longer relevant for the time) a new style emerged. As he has written:

The geniuses start a period and the ordinaries develop and establish it... Their great work and effort will not elicit the appraisal of those seeking novelties, but the latter tend to forget that a gestation period cannot be shortened: any attempt to abbreviate it results in a miscarriage the 'products' of which are stillborn...”

What followed was Elhanani’s main thesis: “In Praise of Ordinariness”. As he has written:

... but what is ordinary? An ordinary architect, for the purpose of this argument, is one who adheres to a certain creed... he builds for the people who will use his buildings, not for the photographers and the press. And who are the others? There are two types left: the bad architects who don’t know their métier..., and those ordinary architects who perceive themselves as geniuses (and statistics show there are indeed very few of those). In order to prove themselves worthy of

449 See a comparable articulation of the concept of style in Karsten Harries, The Ethical Function of Architecture in which Harries discussed Hermann Broch, Nietzsche, and Emil Staiger’s notion of style (pp. 58-62).
450 Reading Joseph Hoffmann, Hermann Broch, Ernst Bloch and others, Karsten Harries suggests that style was understood not as something attributed to a single work of art or artist but to a “community enduring through time.” See his discussion of style in The Ethical Function of Architecture, (Cambridge, Massachusetts: The MIT Press, 1998), 63-65.
this label they must be extra-ordinary, hence the formal distortions and acrobatics, hence the pursuit of the sensational. At times, they are successful in creating their own distortions, but in most cases they revert to ‘imported’ ones… they do not have the users’ in mind for they have loftier intentions! The perpetuation of vague architecture? The perpetuation of themselves? Is this not an attempt to turn architecture into a purpose-free art?? Is this not a renewed attempt, this time architectural of – ‘art for art’s sake’?

My professor Alexander Klein used to say that a house in a street is akin to a tree in a forest. It must contribute to the overall image of the forest without standing out, or being out-of-the-ordinary. The house in the street must merge with the image of the street and contribute to the formation of a street image (of course this did not include an important public building).

The outstanding house (and for all practical purpose it is not important whether it is ‘beautiful’ or ‘homely’) destroys the image of the street… I think those who seek to stand out have forgotten the difference between a building and a sculpture... Buildings are the cornerstones of the street or square... they don’t have to be identical but they need to be well integrated. This is the reason I commend the ordinary architects, who are willing to integrate [their work] in the space of a street or square, those who relinquish the temptation ‘to renew at all cost’. 451

Thus, Elhanani gave another meaning to the ordinary, one not necessarily entailing the use of materials at-hand nor associated with products of an industrial process. Qualifying the term so that it circumvented the typical association to mediocrity, he sought an ordinariness, which did not deny architecture’s symbolic importance and, like Sharon and Reiner, tied it to the idea of propriety. Because architecture was a public art it was required to retain certain public rules of engagement. As in Sharon’s qualification that a refectory in a kibbutz should not compete with the kibbutz assembly hall or its theatre, Elhanani advocated for ordinary buildings participating collectively in a public domain, not out-standing nor standing-out. As he has written:

We must not see ourselves as isolated, each one erecting his own tombstone. Let us learn from the architects of the Middle Ages and the Renaissance in order to create a wonderfully urban space notwithstanding the ordinariness of its elements. Let us not perceive ourselves as the inhabitants of the Olympus, raised from the people. Let us see ourselves as their providers, and remember that

architects and all other artists are merely craftsman (and this is an honorary title) whose reword is in service...

Determined to preserve the ethical foundations of the preceding decades Elhanani tried to steer architecture away from the glorification of its author and away from the growing supremacy of its plastic ingenuity. Although not denying its symbolic meaning he stressed that “architecture is not only commemorative but is first and foremost a frame for a way life, a vessel for living.” This notion was included in the opening paragraph of his text Genesis, published in the first volume of Tvai, a quarterly for architecture, town planning and the plastic arts, which he founded and edited from 1966 to 1992. Published around the same time of the debate that had unfolded in the pages of Haaretz, the text was another iteration of the contest between the notions of ordinariness and expressivity. Claiming that several architectural historians believed that the origins of architecture were not the Egyptian pyramids, the Babylonian Ziggurats or the Greek temples but rather the un-authored, “pre-stylistic” structures, which had begun with the cave dwellers or the nomads, Elhanani argued that prehistoric models had already contained the ideas and elements, which formed the basic constituents of modern architecture. The notion of functionalism in which various functions were faithfully reflected in corresponding forms and the idea that an object fulfills its purpose efficiently had already existed in ancient models. According to Elhanani, also the idea and ideal of constructivism appeared in ancient forms. “The dolmen is a simple stone structure and all its details are evident. Its shape accurately expresses the method of construction.” There were no expressive superfluities, “compromises and fakes” not derived

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452 See the discussion on banality and ordinariness that Peter Collins finds in Augusts Perret’s work, (specifically the apartment block at 51-55 rue Raynouard in Paris and his later work), which abided limitations imposed by code but also resisted the temptation of creating an outstanding architecture. Discussed also in Panayotis Tournikiotis, The Historiography of Modern Architecture, (Cambridge Massachusetts: The MIT Press, 1999), 188-191.


454 Comparable to this idea of “un-authored” architecture is Bernard Rudofsky’s book Architecture Without Architects, An Introduction to Nonpedigreed Architecture (1964) following the MoMA exhibtion of the same name.

455 Ibid.
from function or structure. He found similar examples in vernacular “pre-stylistic” – ordinary – dwellings produced out of necessity, availability of local materials and the effort to achieve an efficient result. According to this line of reasoning, the early stages of the craft of building were founded on rationalism in the wider sense of the word. Like Reiner before him, Elhanani offered a more refined understanding of the notions that had been typically tied to modern architecture. In this argument, ordinariness was tied to functionalism, constructivism and objectivity, which were traced back to the beginnings of the architectural tradition.

6.2 The Case for a Modern Regionalism: Materials and the Vernacular. 1960s.

At this moment, the pioneering age is coming to an end. The dichotomy between Hebrew culture and Palestinian land has no more reason to exist: the culture has conquered the land. Now the question arises: how to belong to it?456

While characterizing currents in architecture created during Israel’s first decade as reflecting the first phase of a brutalist culture, an effort to qualify this term and establish the nuances of its realizations was, I hope, equally conveyed. Although the explorations with exposed construction processes, structure and materials were associated with frugality and austerity, there were cases in which this new approach to materiality produced subtle buildings hardly evoking a “bloody minded” or even “warehouse aesthetic”, often associated with this architecture in other parts of the world. As Arieh Sharon had proposed as early as 1940 an opportunity to explore with local materials was part of an effort to adjust the alleged Eurocentric modern canon to the actualities of the present in Israel in order to achieve a modern architecture with regional inflections.

The earlier belief that modern architecture was an international phenomena and that an “international style” had unfolded was quickly refuted not only in Israel. Although the increased production of artificial materials not locally bound and enhanced distribution of knowledge supported the argument for an international architecture, which was inherently tied to the concept of the discipline as a principally technical practice, conditioning factors having to do with place and culture remained important aspects of design. Although technical achievements – a transmittable kind of knowledge shared as a result of instruction – had the potential of pervading all regions becoming the intellectual property of any modern civilization, the specificities of culture, history, site and climate had significant bearings on architecture. As argued in this chapter’s previous sections, technical or functional determinism were often coupled with compositional requirements, questions of scale and propriety, as well as representational intents. Some of these decisions were largely influenced by a specific culture and place. Thus from the onset, the concept of a singular modern tradition was a rhetorical construct. In reality it unfolded in plural terms. As Aba Elhanani had maintained: “Corbusier and Gropius indeed have professional offspring’s throughout the world who walk along the same path but do so in many different ways.”

In Sharon’s proposition the idea of exposing materials was also tied to the concept of restrained expressivity in which a different kind of expressivity was intended. Not one reflecting the genius of the work’s author or the institutional powers behind its making. The expressivity Sharon had in mind involved the building’s connection to the ground on which it stood.

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457 The local and the national were invoked elsewhere and earlier towards the end of the 19th century in order to make sense of an increasingly globalized world. The notion that the link between nationalism/locality and globalization was redefined from one of secession to one of simultaneity is explained in Maiken Umbach and Bernd Hüppauf eds., Vernacular Modernism, Heimat, Globalization and the Built Environment, (Stanford, California: Stanford University Press, 2005). Especially chapter four: Maiken Umbach, “The Deutscher Werkbund, Globalization, and the Invention of Modern Vernaculars,” 114-140.

Architecture seen in this way reconciled between abstract ideas and the concreteness of its surroundings. For Sharon, employing stone from local quarries or concrete blocks manufactured in local factories while abiding an economy of expressive means still expressed the idea that the building was indeed place-specific, a local dialect of a modern language or as Elhanani had later suggested “an independent mutation of world architecture.”

This was closely tied to a notion of belonging, informing the modern tradition from its early stages. While belonging entailed an association to a certain culture it also had a geographical, spatial meaning – belonging to a territory. Since Israel was a new country largely comprised of new immigrants, one was left wondering how people belonged to a place essentially foreign to them. The task of forging a new national identity for immigrants bearing a variety of identities, who had affiliations to a multiplicity of cultures, was further challenged by the fact that the land of Israel was a historical (and often mythical) concept to them. Thus, from the first realizations of modern architecture in Palestine the question of belonging was addressed in different ways. The typological arguments mentioned in previous chapters were one of the directions local architects followed in order to achieve a sense of belonging to regional traditions. The appeal to use and expose materials bound to place was another opportunity to realize this objective. As will be suggested in the following pages, these efforts were coupled with design of climatic solutions, which rendered the architectural object more place-specific. It also entailed reconsidering the relationship between building and topography.

Dov Karmi’s Klier House in Ramat Gan (1958-1960) incorporated cast in-situ concrete, white silicate bricks, Terrazzo blocks, rough local stone, transparent glass, translucent wire mesh

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459 Elhanani explained that “Israeli architecture would reach maturity only when it will be able to create an independent mutation of world architecture: When we stop coping Corbusier and Corbusier’s copiers, when we delve into ourselves, our climatic conditions and our technological abilities… then we may become mature enough to create a regional style…” Aba Elhanani, “Our Contribution to Modern Architecture,” Handasa We’Adrikhalut, 19, (May-June 1961), 136. [Hebrew]

460 See discussion on Vittorio Gregotti in chapter 4, 4.2.
glass, wood, iron and pre-cast concrete elements. Karmi also employed two structural techniques. The first was a skeletal concrete structure, visible in some instances along the building, while in others it was faced by a range of different non-load bearing materials. The second was a load bearing rough local stone appearing in the surrounding landscape wall and penetrating the building’s interior. While subscribing to a modern architecture predicated on modern manufacturing techniques and construction practices, Karmi also exposed a range of materials and a range of material processing which took place both in the factory and the construction site.

The rough-faced, load bearing local stone had a conspicuously different appeal than ashlar cuboid masonry; polygonal and uncoursed, its texture also differed from the modular standard silicate brick that appeared in several of the house’s walls, laid in stretcher courses. It is likely that Karmi wanted to distinguish between the load-bearing stone and the brick employed as cladding by applying different geometries to each. In principal, both materials could have been either load bearing or non-load bearing. Although the stone was hewed from a natural source and the brick was a composite product, both comprised of natural ingredients. Both materials were local and processed albeit to different degrees. Local stone, arguably closer to the spectrum of the “natural,” was still shaped and subject to some level of stereotomy. It did appeal to a distinct sense of materiality no more haptic, however, than a finely chiseled, honed or polished alternative. It was perhaps more readily associated with “nature” because of its visually pronounced roughness and irregularity to which application of skilled labor was less conspicuously apparent. (Pl. 6.2 23,24).

In the same house Karmi designed a beautifully articulate outdoor spiral stair, comprised of precast concrete elements assembled on site (Pl. 6.2 25,26). As the employment of the natural stone entailed its modification and shaping, the use of these precast components involved alteration as well. The upper horizontal portion of the stair tread received a different finish than
the overall smooth finish of the concrete. Bush-hammered, it became rough and pockmarked (Pl. 6.2 27). Karmi’s handling of materials indicated that they required different finishes according to their location in the building. In the case of the stair, the tread’s upper layer required a rougher finish in order to prevent slippage. The different treatment of glass was another case in which the same material received different finishes. In window-walls comprised entirely of glass, the lower and upper panels were of translucent glass with an embedded wire mesh while the middle panel framing the horizon and situated at eye level were of transparent glass. This was not only in order to impart a scale commensurate with human proportion but it also indicated concern about levels of visual exposure as well as admittance of light and moderation of glare.\(^{461}\)

There seems to have been an intentional distinction in the building between situations in which the structure was exposed and those in which it was not. Parts of the skeletal concrete structure appeared visible on the villa’s exterior. Extending the silicate cladding along the façade, Karmi was careful to reveal the lower and upper concrete slabs, but he did not expose the vertical concrete columns behind the bricks, and employed a detail typical of load bearing brick at the turned corners. The vertical concrete columns left exposed, as both structure and material, were only those acting as freestanding pilotes (Pl. 6.2 23). It appears that for aesthetic reasons having to do with accentuating the horizontality of the mass, Karmi relaxed the building’s structural syntax, and had no issue with revealing but also concealing structure for compositional reasons. While the floor slabs and roof parapet were left exposed along the building’s exterior facades, they received a whitewash finish in the building’s interior, once again indicating that Sharon and Reiner’s call to expose the building’s materials and the way it was made was modulated for other purposes. One may deduce that for Karmi the question of the ethical function of architecture and its aesthetic purpose did not constitute a radical opposition.

\(^{461}\) An early instance (possibly the first) of this treatment of the window wall can be found in Le Corbusier’s Swiss Pavilion (1930).
Since the use of local materials was pursued in order to express the building’s connection to its locale, the term “local” requires closer examination. By using this term I have referred to (1) exposed concrete in its various appearances: cast in-situ, precast elements, and the concrete block, (2) locally manufactured brick and (3) locally quarried stone. The first two, although comprised of natural ingredients, were composite materials, involving industrial manufacturing and mass production. Stone excavated from local quarries appeared more “natural” although it too could have involved the employment of advanced machinery. As in the first two examples, the final product of stone was also to some extent processed and shaped. Nevertheless, the use of stone and particularly rough, sometimes un-chiseled, local stone was charged with associations to indigenous, pre-modern construction materials and to the greater natural landscape from which they were indeed excavated.462 While “local” and “natural” have been attributes associated with materials for the purpose of expressing the building’s belonging, there were indeed other means with which architects sought to root the buildings in their locale, although this did not entail a literal connection to the ground or to materials obtained from it.

To moderate sun exposure in the large double-height aperture in the living room of the Klier house, the opening was divided into two fields according to use and visually following the division imposed by the horizontal concrete slab. The lower field from which one exited the house into the garden had sliding glass panes and sliding wooden blinds, adjustable when the partition was shut. In the upper field Karmi incorporated adjustable vertical wooden sun-breakers (Pl. 6.2 28). He exerted significant effort into developing mechanisms for brise soleil in various forms and materials. Although he did not publish often, he devoted a text to the subject published in Handasa We’Adrikhalut in 1952 in which he acknowledged the different regional sources from

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462 This was expressed by Mestechkin explaining the use of un-chiseled local stone in the theatre at the Hebrew University in Givat Ram. Mestechkin Archive, Givat Haviva, (3) 4.90-95. Also quoted in Muki Tzur and Yuval Danieli eds., Mestechkin Builds Israel, Architecture in the Kibbutz, (Tel Aviv: Kibbutz HaMeuhad Publishing, 2008), 211. [Hebrew]
which the sun breaker had developed including the range of its applications. He was convinced it was extremely pertinent for Israeli architecture as a means to withstand the harsh local climate (see translation 6.2 T01). 463

Karmi’s use of the sun-breaker in the Klier House was preceded by his well-known pre-cast concrete web mounted on the south façade of the Histadrut Headquarters Building in Tel Aviv (1949-1955). His solution received wide coverage in local newspapers and the architects’ and engineers’ professional journal. The use of glass panes from floor slab to ceiling height was meant to give the interiors ample natural light. But facing south equally imposed the necessity to moderate the affect of direct sunbeams in order to reduce both heat gain and glare. The prefabricated concrete components were assembled on site and gave the façade a skeletal image resembling concrete embroidery (Pl. 6.2 29,30). With the changing angles of light registered through this fixed lattice weave it resonated with the Arab mashrabia, recording the changing natural conditions at its setting. Its proposed climatic solution was one means for conveying the building’s place-specific character. Karmi also employed brise soleil on the entire south facing façade of the Administration building at the Hebrew University in Givaat Ram (1954-56). Here, the sun breakers were integrated into the wall. Vertical elements were fixed upon the protruding floor slabs, and smaller horizontal adjustable elements were placed between them (Pl. 6.2 31). With its roots, as Karmi maintained, in the Near East and in more current modern applications in Brazil, the sun breaker became an essential component for modern Israeli architecture. For Dov Karmi it was, much like its application in Brazil, more ethereal (delicate), less robust than in Ram Karmi’s later buildings. Its use became so prevalent that at times it exceeded its initial purpose

463 Dov Karmi, “The Sun Breakers,” Handasa We’Adrikhalut, 10, (1952) 14-15. [Hebrew]
becoming a superfluous component in buildings, placed in situations where it was plainly unnecessary, and in defiance of the internal logic of the building and its specific setting.\footnote{Aba Elhanani, “Trends in Israeli Architecture,” Handasa We’Adrikhalut, 20, (1962), 313. [Hebrew]}

Roughly around the same period, architect Shmuel Mestechkin experimented with another compelling example for a regional modernism or critical regionalism.\footnote{I am referring here to a concept articulated by Kenneth Frampton in “Towards a Critical Regionalism: Six Points for an Architecture of Resistance” published in Hal Foster, ed., The Anti-Aesthetic, (Port Townsend, Washington: Bay Press, 1983). For earlier texts on the concept of critical regionalism see Alexander Tzonis and Liane Lefaivre, “The Grid and the Pathway: An Introduction to the Work of Dimitris and Susana Antonakakis,” Architecture in Greece, 15, (1981), 164-178. And Kenneth Frampton, “Prospects for a Critical Regionalism,” Perspecta, 20, (1983), 147-162.} Mestechkin was born in 1908 in Ukraine and immigrated to Palestine in 1923. Like Sharon, he studied at the Bauhaus in Dessau under the directorship of Mies van der Rohe. In 1933 he returned to Palestine and worked for Joseph Neufeld before opening his own practice in Tel Aviv. Much of his work was for the Kibbutz movement and at some point he became head architect for the National Kibbutz Association. His practice was responsible for many refectories, meetinghouses, culture centers, libraries, industrial buildings, agricultural structures and dwelling units throughout several Kibbutzim in Israel. Regarding his design for an open-air theatre at the Hebrew University in Givaat Ram in Jerusalem (1955-1958)\footnote{The project was published in Architectural Design, (October 1958), 410-411.} situated on the east slope of the campus hill, he has written:

> I was asked to place the amphitheatre in a deserted quarry, the west and south walls of which were carved into the mountain in the right height so that they served as the back wall for the amphitheater. This played down the amphitheatre within the mountain and gave it a unique character, while also enabling a further architectural expression through its enclosure from the east-south road with retaining stone walls and external steps. On its north part the amphitheatre was enclosed by a low structure shaped like a shofar.\footnote{Shmuel Mestechkin. Mestechkin Archive, Givaat Haviva, (3) 4.90-95. Also quoted in Muki Tzur and Yuval Danieli eds., Mestechkin Builds Israel, Architecture in the Kibbutz, (2008), 210. [Hebrew]}

The topography and surrounding scenery were both a backdrop and an active ingredient in the project’s making. Rather like construction materials, they required reshaping but not for the
purpose of manipulation and subordination to the architect's overarching ideas. By tying the project to the abandoned quarry, Mestechkin's intervention brought out the natural and man-made preexisting context but also established a new constellation in which they took part. The precision required of this task entailed the “playing down” of the architecture, which reiterated the concept of restrained expressivity. With the tall cypress trees and the mountain rock of the old quarry walls encircling the space from above, and the open views to the east towards the hills of Givaat Ram (on which in the mid 1960s the Israel Museum would be situated) the theatre was literally carved into the existing topography (Pl. 6.2 32). This was symbolically referenced in Moshe Zipper’s sculpture located on the upper mountain rock facing the theatre depicting a figure in relief with two iconographic symbols of Greek theatre: the mask and the harp (Pl. 6.2 33). But the structure also had its own underlying principles owing to the typological pedigree to which it belonged. Mestechkin was quite clear about this when referencing the principles of theatre building in Vitruvius: “According to Vitruvius, the plan of a Greek theatre is based on the first circle of seating. Thus the theatre receives a principal geometric scheme, without relating to a specific place.”

For Mestechkin, typological analysis preceded the adaptation of the type to its particular programmatic or site-specific requirements.

Mestechkin studied ancient Greek theatre construction. He maintained the ordering principles but also adjusted them to the specific site, culture, and construction techniques available to him. He established a complete circular stage, freestanding without a presceniun and transformed the typically rectangular skene into a semicircle with tapered edges: “I asked archeologists and artists if there were a Jewish musical instrument or ritual instrument with a geometric shape. Their answer was: the menorah and the shofar. I chose the shofar as a formal and symbolic image.” The tapered walls of Mestechkin’s skene, its angular and irregular shape

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and its asymmetrical placement in relation to the stage and seats made the space more dynamic.

By rotating the skene away from the theatre’s axis of symmetry, Mestechkin also proposed more than one stage and more than one point of focus since the skene’s central axis pointed towards the hills to the east.469

The materials in the theatre varied from concrete to local stone applied in various sizes and finishes (Pl. 6.2 34,35) As Mestechkin explained:

>`The stage perimeter was built in dark basalt. Its upper layer was paved in a lighter honed stone. The massive retaining walls were built in a Cyclop method (with large un-chiseled but coordinated stones.) The wall encircling the passage between the two seating sections was built with chiseled stone in a rectangular shape, and the walls of the structure resembling a shofar were built of un-chiseled square stone conveying the feeling of primitive construction. Each stair was comprised of a one piece chiseled stone. The base of the seats was rough concrete and the seats themselves were built of honed stone according to the seat’s dimensions. The amphitheatre’s back wall remained in its natural condition, as it existed in the quarry.470`

A number of years later Mestechkin incorporated local rough un-chiseled stone with exposed concrete in another project near the Dead Sea. Beit Hayotzer, a museum for the history of the Dead Sea industry and an adjacent youth hostel were situated in Tamar Regional Council on the western shore of the Dead Sea (Pl. 6.2 41). They were located near the workers community

469 He also altered the incline of the koilon, the tiered seating for the audience. As in several Greek theatres he established two seating sections separated by a passageway dividing the lower and upper rows (diazoma). He also included a low separation wall between the diazoma and the upper koilon. The height between rows closer to the stage was 12 centimeter, while in the upper koilon it was 30 centimeters. Breaking the circular tiered seating into two sections reduced the potential massiveness of the theatre. The changed incline gave a spatial articulation to the theatre in which the lower koilon seemed to be more associated with the stage, but through increasing the incline in the upper rows, they were brought closer to the stage creating a slightly more enclosed and intimate space. The separate articulation of both koilon, however spatially successful, troubled Mestechkin because it separated the audience into two groups: “You may say that this composition divides the audience into two types: those who are important and those who are less so, patriarchs and plebeians – a notion which contradicts my democratic views. Nevertheless, after much hesitation, I designed it this way in order to create a ceremonial feeling, related to the round stage. In this way, part of the audience closer to the stage takes a more active part in what occurs on stage. The rest of the audience, seated beyond the concentric passageway has good views to the stage because they are seated in the higher area. They take part in what occurs on stage as observers (for example: when diplomas are handed out, the students and their families sit closer to the stage.)

470 Shmuel Mestechkin. Mestechkin Archive, Givaat Haviva, (3) 4.90-95. Also quoted in Muki Tzur and Yuval Danieli eds., Mestechkin Builds Israel, Architecture in the Kibbutz, (2008), 211. [Hebrew]
Neveh Zohar planned for the employees of the Dead Sea Works. Mestechkin planned the museum, the youth hostel and the workers’ housing in the mid 1960s. Located on a hilly terrain, the museum formed a plateau at the top of several landscaped terraces (Pl. 6.2 36,37,41). The youth hostel followed the slope of the terraces, its slanted roof paralleling the incline. Formed as a flipped truncated pyramid, the museum had an upper storey observation deck also performing as its foyer from which one descended into the lower exhibition gallery. Access to the deck was through a perimeter ramp enveloped by the exterior walls. The deck effectively divided the mass ingrained in the soil with the roof above, which seemed to hover over its deep and darker space. Supporting the ribbed roof of exposed reinforced concrete were two tapered exposed concrete columns with a square base and a wider octagonal capital and two sustaining walls with the stair leading to the gallery below. Since these supporting elements did not extend past the perimeter roof bays, the roof seemed to soar over the structure reaching beyond the deck’s parapet. The pressing mass above and the parapet below framed horizontal strip views of the Dead Sea and the arid mountains in the building’s surroundings.

Tapered enveloping walls locally perforated by small apertures enclosed the lower exhibition space. In order to deepen the apertures and soften the light admitted into the interior, Mestechkin placed them in projecting concrete frames, extending beyond the exterior face of the wall. A metal grating of an abstract image of the Dead Sea (before its drying and separation into two separate basins) was welded to thin rods and fastened to the concrete (Pl. 6.2 38). The random sized and shaped local rough stone incorporated in the landscape retaining walls was also used in the museum, the youth hostel and the workers’ housing units in Neveh Zohar (Pl. 6.2 39,40). In the housing units and youth hostel the stone was framed by a concrete casing. In the museum exterior the concrete casing was less visible, left noticed only as a coping. In all likelihood this was done to accentuate the mass as separated from the projecting roof, both in
form and material. Like Karmi’s extension of the silicate brick beyond the recessed concrete structure, Mestechkin left the rough, un-chiseled stone visible on the museums’ exterior corners and suppressed the concrete structure behind. From the tapered walls and size of the local stone one would be able to deduce that the latter was not load bearing and that the walls had a concrete structure although it was not visibly apparent. All interior walls were whitewashed. In the hybrid choice of materials and their different finishes Mestechkin qualified the principle of direct structural expression for proportional and aesthetic reasons.

In the 1960s several Israeli architects incorporated un-chiseled local stone in their buildings. The Histadrut’s sanatorium in Nazareth designed by the Rechter, Zarhi, Peri team had a visible exposed concrete skeletal structure in which the architects integrated a rough local stone (Pl. 6.2 42). Built in the same “Cyclop method” the stones were not chiseled. They were laid in an irregular pattern but coordinated to form a rough surface with deep seams. When appearing in load bearing walls the stone acted as “an organic constituent to the structure not as an element of cladding,” and around the large *pilotis* supporting the building it assumed another function by becoming the frame for the concrete casting.471

By extending the rough stone from the building facades into the landscape retaining walls in several of the aforementioned projects, the clear distinction between the building and its surroundings was blurred but not for the sake of romanticizing or naturalizing the act of building or the building itself. Distinct geometric forms, precise profiles, abstract compositions and the use of modern materials and methods of construction tied these projects to a recognizably modern tradition. Although the sanatorium was affirmed “a natural and organic unit in the landscape”472 the architecture did not seek mimesis or assimilation with nature; its rootedness or “organic” quality were not afforded by unmediated integration with the site. In terms of using materials

471 Loni Gershoni (ed.), *Architectura*, 1, (1966), 31 [Hebrew]
472 Ibid.
literally obtained from the ground, the site was *present as a referent*. The rough stone *stood for* and by so doing was *detached from* its natural source.

The site in these projects was also present as a visual frame of reference as parts of the location were deliberately framed. Mestechkin reoriented the visitor back to the landscape by the framed horizontal views in the museum observation deck. Although the extent of what was framed changed according to one’s distance from the edge of the deck, the extended roof above largely pointed to the fact that what Mestechkin was aiming for (particularly when looking East) was the conjunction between the hills and the Dead Sea basin. The building in this sense was quite literally a contrivance for *viewing* the surrounding territory. The sanatorium made a similar gesture (although less framed) by placing its expansive pavilion terrace on the mountain’s southern slope overlooking the Nazareth Mountains, Jezreel Valley (*Emek Yizra’el*) and Mount Tabor. But the landscape was present not only in the haptic sense of coarse materiality or the optic sense of distant viewing. The indoor and outdoor levels in the sanatorium worked with and against the site’s topography, extending existing levels and creating retaining walls and sharp contrasts with others. (Pl. 6.2, 43).

By condensing an experience of something tangible with an awareness of things farther away, a certain rapport between local, marginal and horizonal fields was forcefully apparent. If architects in Palestine-Israel sought a regional modernism in typology as a design method (see chapter 1 and 4), the growing awareness of place and site now synthesized typology and topography.

The last project examined in this context is a private house planned by Ram Karmi for the Baroness Bathsheba de Rothschild (1962-1964). Its significance to the pursuit of regional modernism was reflected in the use and finishing of materials as well as in the site planning
which was inseparable from the architecture of the villa. For the landscape design Karmi collaborated with Itzhak Danziger, a renowned Israeli sculptor and later cross-disciplinary artist, who had earlier created one of the Yishuv’s most iconic images in his sculpture of Nimrod (1938-1939).\textsuperscript{473} His work with Ram Karmi marked a moment in Israeli culture where architecture, landscape planning, sculpture, land art or what he termed “land structures” coalesced to form an integrated work in which the ideas of place, context, history and landscape were key elements. Danziger’s work is particularly significant given the reference to topography in Israeli architecture at this moment. Topography, for him, was both the man-made and the natural components of a place (as the term implied in its original Greek meaning), but the artifacts or history he typically referred to were selectively chosen. Hardly a-priori factual phenomena, history as well as nature were constituted socially, culturally and politically.

Danziger was born in 1916 in Berlin and immigrated to Palestine with his family in 1923. The family’s first residence was in Jerusalem overlooking Herod’s Gate on the northern walls of the Old City. After the 1929 Arab uprising the predominantly Muslim neighborhood was no longer safe for Jews, and the family relocated to Tel Aviv. In the 1930s Danziger lived in London and attended the Slade School of Fine Art. During this time he became acquainted with the work of Henri Moore, Eric Gill, Samuel Rabinovitch and Jacob Epstein. In London he also met Avraham Melnikov who sculptured the stone lion at Tel Hai (1926-1934), a work bearing discernible ancient Near Eastern inspirations. Some of Danziger’s sculptures also resembled the work of Slade School fellow student, Kenneth Armitage, whose sculptures were inspired by ancient Egyptian and Aegean art. Most likely influencing the turn to archaic Mesopotamian,

\textsuperscript{473} Nimrod means the rebel in Hebrew. Danziger had initially sculptured the figure upon Richard Kaufman’s request for an entrance to a building at the Hebrew University in the Mount Scopus Campus. The sculpture was rejected by the university.
Egyptian and African imagery was head of the Slade sculpture department, Alfred Horace "Gerry" Gerrard, with whom Danziger stayed in contact years after his return to Palestine.\footnote{474} Danziger was particularly receptive to the turn to ancient forms of art, which had permeated the British art world in the 1930s. In the Yishuv during the same period, questions of cultural and national identity informed many artistic practices which rejected the sole affiliations to the West because its association with Diasporic life. The West was a portion of Jewish history they sought to erase from collective national consciousness.\footnote{475} According to some factions in the Yishuv, Diasporic Jewry bore no immediate “natural” connection to the land on which they lived. In place of this “inauthentic” and “false reality” they offered an alternative existence linked to the land and revolved around the concept of a Hebraic cultural renaissance. The New Hebrew unlike the “wandering Jew” would strike roots in his land and become an indigenous part of his natural settings. For this purpose the image of the ancient People of Israel in the Land of Israel – the “physical homeland” – had a significant role in forging a modern national identity, one contrasting the alleged subservience and displacement of the Diasporic Jew.\footnote{476} The turn toward ancient art was informed by this appeal.

Since according to this strain of thought the Jewish immediate and exilic past was rejected, a historical bypass was necessary to connect the present to ancient sources in an effort to secure the legitimacy of the unmediated link between the New Hebrew and his territorial homeland. This form of national historiography forged images and myths conducive to the

\footnote{475} In more radical and disturbing terms, western Jewry, particularly with rising anti-Semitism in Europe, was condemned as “passive” and “submissive”. This critique had already surfaced in the 19th century, before the emergence of any organized form of Zionism and surely before there was a Zionist community in Palestine. It the 1930s and 1940s it gained momentum in the Yishuv among Canaanite ideologues, who were initially called the Committee for the Consolidation of Hebrew Youth.  
\footnote{476} For the more extreme facets of Hebraic revivalism, Judaism was completely negated.

Although certainly not all Zionist voices in Palestine invalidated the Diasporic stage of Jewish history nor supported a complete break with it, there were more extreme currents that developed this type of territorial nativism, the most extreme of which formed the Canaanite group.\footnote{The group had been initially called the Committee for the Consolidation of Hebrew Youth and, later, the Center for Hebrew Youth. The modernist Hebrew poet Avraham Shlonsky referred to the group pejoratively as the Canaanites indicating the biblical negative sense. The group adopted the nickname. For the evolution of the Cannanite movement and its ideological foundations see: Yaacov Shavit, \textit{The New Hebrew Nation, A Study in Israeli Heresy and Fantasy} (1987).} The Canaanites exerted a significant amount of influence on the \textit{Yishuv’s} culture and national consciousness. Its ideology ran parallel to and bore a conspicuous impact on the “generation of 1948” (\textit{Dor Tashach}) colloquially known as the “Sabras”.\footnote{Sabra (Tzabar) relates to the pear of the Opuntia Cactus. The cactus pear had a thorny and thick skin but a sweet inside. In the 1930s it became an informal depiction of Jews who were born in Palestine “rough on the outside and sweet within.”} One of the ideology’s salient themes revealed the desire to become an indigenous inhabitant of the land. The Canaanite manifesto (which included unsettling anti-Semitic exclamations and nationalistic overtones) defined national identity based on territory and defied connections to Judaism and Zionism so long as the latter was associated with the former. “Hebrew” and “Canaanite” in this sense were interchangeable. The New Hebrew, deeply rooted in the Land of Canaan, was to be strictly severed from any link to the Jew of the Diaspora for which the land constituted an idea, not a reality. In this unremitting secular, national, territorial ideology, the concept of a nation developed and coalesced with a territory, which in turn fused its culture.\footnote{This notion was not new, nor was its abuse by political ideologues. As mentioned by Yaacov Shavit, some of the early theorists of Canaanism were well versed in organismic, anthropogeographic theories such as those of Johann Gottfried Herder, Alexander von Humboldt and Carl Ritter. Similarly, some of their ideas were appropriated, used and misused by the political right, with which some (but not all) of the group members were affiliated. See Yaacov Shavit, \textit{The New Hebrew Nation, A Study in Israeli Heresy and Fantasy}, (1987) 46. See also the ideas of William Ritter, the Swiss art critic and painter who had a significant impact on Le Corbusier. Ritter considered identity as springing unwillingly from history and place into which one is born and is therefore something which cannot be constructed “at will”. See Francesco Passanti, “The Vernacular, Modernism and Le
certainly reverberated with unsettling right wing European ideologies, for the Cannanites the nation was not based on a common ethnicity or religion – definitions they had explicitly rejected. On the contrary, for them an authentic and organic nationality could have been comprised of different ethnic groups who shared a territory and through it were integrated into a specific territorial-based culture.\textsuperscript{481}

Although he had never publicly affirmed his affiliation to the Canaanites and in fact stated the opposite: “I was never a Canaanite. [I was] A son of a bourgeois who joined the left.”\textsuperscript{482} Danziger has been associated with them. According to Yaacov Shavit, he was in fact part of the first group, which included Yonatan Ratosh (the principle ideologue-poet), Benjamin Tammuz, Uzzi Ornan, Ezra Zohar and several others.\textsuperscript{483} Whether officially a Canaanite or not, Danziger’s leap to an ancient mythologized past, his growing interest in pagan culture (extreme secularism), in spiritual rituals and their contextual natural settings, and his preoccupation with the notion of territory as a foundation for culture and national identity drew his thinking close to Canaanite ideology.

That territory was neither abstract nor a \textit{Tabula Rasa} but imbued with memories and meanings distinguished Danziger from preceding Zionist functionalists, who considered territory as “exchange value”, as land to be purchased and developed. Danziger’s concept of territory indeed acknowledged its “anthropogeographic”\textsuperscript{484} dimensions and objective features alone did not constitute his concept of nature, which was not “natural” in the neutral sense of the word. But

\textsuperscript{481} As several scholars have shown (Yaacov Shavit, Ron Kazar, Mordechai Bar-On) Canaanism indeed shared some views with Revisionist Zionism as well as with Fascist movements. Yet its pan-Semitic ideology, called for a unified Semitic space the later evolutions of which called for a confederation of Israel and its Arab neighboring countries in opposition to the imperialism of the West.
\textsuperscript{484} I am using this term with the writings of Vittorio Gregotti in mind. See chapter 4.
as the link between the New Hebrew’s present and his Diasporic immediate past had to be severed by introducing a historical bypass, the conception of the territory’s history was likewise filtered and constructed with conceptual bypasses. As recent scholarship has argued, Danziger’s territorial approach in which nature was associated with ancient sources overlooked its immediate cultural, social, economic and political context. For Danziger, nature was filled with memories and meanings, but they did not reflect the here and now.\textsuperscript{485}

The connection between Ram Karmi and Danziger most likely took place after Danziger returned to London in 1948.\textsuperscript{486} The latter’s work was exhibited at the Institute of Contemporary Arts (I.C.A.), and he also attended two landscape design courses at the Architectural Association (A.A.) between 1951 and 1952, where Karmi was studying architecture between 1951 and 1956. While in England, Danziger continued to produce work referencing places and events in Israel. He also created a series of sketches and sculptures depicting Arab women building their homes pointing, Mordechai Omer has suggested, to his infatuation with the anonymous building cultures of the region.\textsuperscript{487}

Karmi and Danziger’s collaboration in the 1960s in the Rothschild House in Tel Aviv and the second Klier House in Savion\textsuperscript{488} materialized when Danziger’s work evolved from figurative imagery to more abstract compositions. This was partly due to his affiliation with the avant-garde artists of New Horizons (Ofakim Hadashim)\textsuperscript{489} after his return to Israel in 1955, as well as his

\textsuperscript{485} According to Hinski, Danziger’s sensitivity to the landscape objectified its Palestinian inhabitants, reifying them as a part of nature. His descriptions, she wrote, were based on “subjects” and “settings”, in which the Jewish immigrants were the subjects and the Arab natives were part of the “Settings”. Sarah Hinski, “The Silence of the Fish: Local and Universal in the Israeli Art Discourse”, Teoria Webikoret, 4, (1993), 105-122. [Hebrew].

\textsuperscript{486} After spending some years in Palestine in which he also joined the Palmach, the “strike forces” – the elite fighting units for the Haganah established in 1941, Danziger returned to England in 1948. He would return to Israel in 1955.

\textsuperscript{487} This was noted by Omer in the publication, which followed a retrospective of Danziger’s work held at the Tel Aviv Museum of Art in 1996. See Mordechai Omer ed., Izhak Danziger (1996), 409.

\textsuperscript{488} This is the second Klier House built for the son and daughter-in-law of the Klier family for whom Dov Karmi planned the villa in Ramat Gan mentioned earlier in this chapter.

\textsuperscript{489} In theory New Horizons renounced figurative, iconographic and symbolic art and most of the work done by artists affiliated with the group did not directly express national or social questions. Joseph Zaritsky (1891-1985) the group’s leader maintained that the Israeli artist would inevitably reflect his country and therefore must see himself as part of the
teaching post in the landscape department at the Technion, which would last two decades. Ben-Ami Scharfstein has noted that during this period Danziger’s professional practice largely focused on “the connection between humans and nature. He is therefore everything at once – sculptor, landscape designer, ecologist.”

Further collaboration took place when Danziger and Karmi were jurors (along with Dan Havkin) in a design competition for a monument commemorating the fallen soldiers of an IDF special force unit (Egoz) during the Six-Day-War. The admiration of the landscape in which intervention was almost a-priori deemed a violation was anchored in the idea of the New Hebrew’s uninterrupted union with the land. Danziger expressed this emphatic veneration of the landscape: “As we drove up from the Banias on the new road leading to Neve Ativ, the Hula Valley below and Mount Hermon looming before us, the higher we went the more strongly I felt that the landscape – in and of itself, in its sheer grandeur – should express our tribute to the memory of the fallen…” In the paean to the landscape and its ancient history, the potential new monument was deemed an interference: “The surroundings dictated, to each of the jurors separately, the essence of the site. We felt that any vertical structure designed as a sculpture, however impressive, could not compete with the mountain ridge…”


“As we drove up from the Banias on the new road leading to Neve Ativ, the Hula Valley below and Mount Hermon looming before us, the higher we went the more strongly I felt that the landscape – in and of itself, in its sheer grandeur – should express our tribute to the memory of the fallen…”

From near, the power of Kal’at Nimrud – its impact felt as far as the sacred oak grove – conveyed the quintessence of the site. And from afar, in between Kal’at Nimrud and the grove towered the ridge of Mount Hermon. This triad, both single and composite, took on the aspect of a jewel-studded crown.

The surroundings dictated, to each of the jurors separately, the essence of the site. We felt that any vertical structure designed as a sculpture, however impressive, could not compete with the mountain ridge. As we climbed on, we discovered that the rocks, which from the distance assumed an evenly textured appearance, each possessed a singular vitality and character. When we reached the saddle ridge, our eyes lighted on a natural amphitheater and on the ruin of Kal’at Nimrud.
The glorification of awe-inspiring nature, and the predication of the site’s symbolic identity on its ancient history and ruins (the medieval Muslim castle Kal’at Nimrud), much like the Romantic appeal to Medievalism, folklore and the concept of “authenticity” indicated that this reading of the landscape was indeed sieved through a particular national consciousness influenced as it was by Canaanite ideology and 19th century Romanticism.\textsuperscript{492} Nevertheless, Danziger played an emblematic role in Israeli culture reinstating the landscape, and local rituals and symbols associated with it, as a principal design reference in the ongoing pursuit for ways to integrate and situate architecture (and the people for whom it is built) in Israel.

In the Rothschild house, located in a northern residential neighborhood in Tel Aviv, the collaboration between Karmi and Danziger offered an opportunity to synthesize the use of local materials and the existing topography to create a sense of rootedness in the land (Pl. 6.2 44-48). The plot measuring three and a half dunams sloped west and the building captured the drop in the terrain height. From its upper level one could exit into the highest point of the sloping garden. From its lower level, partially embedded in the soil, one could exit into a smaller garden on the opposite side. A pool, situated at the lowest point in the terrain much like a natural water reservoir, was part of the larger sloping garden. The pool and villa marked the two focal points in the project, decidedly secluded by a surrounding exposed concrete retaining wall (Pl. 6.2 48).

\textit{At a meeting with the representatives of the parents and the Unit, we dwelt on the meaning of the place and the maximal exploitation of its geographical features. The “Place” is a memorial site – that is, not a monument or a cluster of structures which would block the landscape or violate it. This memorial site constitutes genuine integration between the landscape and the sense of being at one with that landscape...”}\textsuperscript{492} As Sarah Hinski’s had argued regarding the specific location of the Golan Heights: “The Golan Heights is a territory that Israel conquered. As in any act of conquering land this occupation included acts of verbal and symbolic violence, which redefine the land as Israeli territory. The act of commemorating soldiers in a conquered territory in which they had fallen, is like giving a new symbolic identity to the place and erasing its past identities, it is a colonization of the place by its reconceptualization. Danziger is a cosmopolitan of sacred places for which political conflicts do not have a lasting impression...” See Sarah Hinski, “The Silence of the Fish: Local and Universal in the Israeli Art Discourse”, \textit{Teoria Webikoret} 4, (1993), 108, [Hebrew].
The villa had a concrete structure. Its most visible exposed concrete element was a massive monolithic vaulted roof. The second material was local eolianite quartz sandstone found in lithified sea sand dunes. It was obtained from Kibbutz Palmachim on the Israeli coast. Cut in varying rectangular sizes and roughly finished, the stone was laid in a running bond coursed pattern in rows of varying heights. It enveloped the facades of the building itself and the projecting walls from the building, which became the garden’s retaining walls. The freestanding retaining walls formed in an abstract composition in the lower portion of the plot around the pool were exposed cast in-situ concrete.

The villa bore a noticeable resemblance to Le Corbusier’s Jaoul houses completed in the mid-1950s, both in the use of reinforced concrete for the vaulted roof (in the Jaoul houses inlayed internally with a “Barcelonine” flat brick) and the application of rough unfinished “primitive” construction materials: rough stone in the Rothschild house and brick in the Jaoul houses. The roughness of the material articulated by Le Corbusier as *épiderme brutal* appears in the imprint of the wood formwork on the exposed concrete as well as in the load-bearing brick construction with gauged mortar and irregular joints. The astonishment the project had elicited among modern architects who had typically associated Le Corbusier’s modern architecture with pristine machinistic forms (even when the buildings were not a product of any outstanding mechanization) was expressed in James Stirling’s famous critique *Garches to Jaoul* published in the *Architectural Review* in 1955, in which he examined what he considered to be two extremes of Le Corbusier’s vocabulary; Villa Stein at Garches (1927) and the Jaoul houses (1954-1956), both in Paris.493

Corresponding to the moment’s topographical turn, Karmi and Danziger used the sloping ground to link the villa and pool to each other while carving them into the terrain. They also used compositional landscape elements, “landscape structures” that preserved but also accentuated the landscape’s features. Danziger noted that the concrete walls surrounding the pool had several functions. They were retaining walls, elements incorporated to define the pool, and also performed as a “sun house”. The composition included an amassing of precast concrete cubes used as seating, and a hollow pyramid originally meant to serve as a source of light. As Danziger has written:

All the structures – including the “sun house” – are actually a division of formal weights in the area. The most important of these, however, is the element of the water in the pool. If you relate to the area of the water surface as point zero, i.e., as the central point in the garden, you will have to divide the rest of the weights in direct proportion to it. Otherwise you will create a kind of “Hotel Lido”, a sterile and decorative fact. The very concept of landscape planning finds its justification in a logical division around that central point which has a value as material (in our case, the surface and transparency of the water), when you don’t waste it on decorative plants. 494

Two critical points are noticeable in Danziger’s description. The first is the articulation of the project in abstract compositional terms. The second refers to actual materiality. The abstract forms were kept bare, devoid of superfluous ornamentation and their profiles were marked by sharp, un-chamfered contours to amplify the contrast of light and shadow. Within their geometric planarity, however, attention was offered to surface texture and its conjunction with light. Like the landscape structures in the garden, the vaulted concrete canopy in the villa was exceedingly planar as were the enveloping walls. This project was denied the formal exuberance present in some of Karmi’s other projects. It offered, by contrast, a restrained exuberance in which the forms were simple and attention to other issues was at stake. A similar appeal to that of Kahn’s

can be discerned in which the “concreteness” of the concrete, the “stoniness” of the stone was invoked. Thus, concrete, water, stone, the range in aggregation, transparency, reflectivity, graininess and so forth were viewed as material facts that were nonetheless dependent on the way they interact with their contextual settings. Formal abstraction but animated surfaces appealed to another kind of materiality grounded in both the character of the material and its conjunction with light. This kind of thinking can be traced to concurrent discourse in Israeli art circles engaged in the question of locality versus universality. As Danziger has maintained in 1959:

*The language of abstract art is universal, but at the same time we must not ignore the decisive influence of each country’s special natural conditions on its artists. In Israel, this influence finds expression in the abundance, indeed surfeit, of light. This same light influenced Hittite and Assyrian sculpture in its time. It calls for sculpture that is simple and clear and large, but not illustrative...*  

Karmi’s text *The Architecture of Shadow* (1966) discussed in chapter 4 echoed this concern with plain and planar forms in conjunction with light. “In our region” he had maintained, “the plastic emphasis and abstraction were always the way for situating buildings in light. We know that Mediterranean architecture was always made of one material, the Assyrian and Persian brick, the ancient Greek marble, the Arab stone and whitewash...” Danziger correspondingly acknowledged Karmi’s architecture as “dramatic architecture, with its strong emphasis on contrasts of light and shadow.” This theme was purposefully employed in the Rothschild villa where the range of light and shadow can be seen in the caliginous vaulted roof, the fracturing of light upon the rough surface of the stone and, compositionally, in the dynamic play of light and shadow in the garden landscape structures (Pl. 6.2 44-48). For both Karmi and Danziger, the intensities of light in the region were perceived as a building material for grounding the building

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496 Itzhak Danziger, “Landscape Structures,” *Kav* 8, (1968), 3-17. [Hebrew]
in its setting. The concept later assumed wide prominence with the designation of the evocative term “Israeli light”, which had also been a celebrated constituent in the universal abstract art of New Horizons. Although surely latitude and geographical features had an objective influence on the intensity of light in the region the recurrent use of the term was redolent with national overtones.

The artists of New Horizons appealed to a universal abstract art disengaged from national symbols and figurative content. Their art was charged with locality indirectly through non-iconographic or symbolic means. For Joseph Zaritsky, the group leader, Israeli art particular to place would emerge “unconsciously” through the adherence to the principles of universal abstract art. Color intensities reflecting local climate and light were precisely the means to achieve locality in universality, concreteness in abstraction.

It was this emphasis on abstraction – which evidently always entails distancing – in conjunction with the concreteness of materials, topographies and situations, which gave the modern Rothschild villa a regional dimension. This tension between abstraction and concreteness, also remoteness and nearness, was coupled by another seemingly irreconcilable twofold condition. Many of Danziger’s texts pointed to intuitive processes. He was “obsessed”, as he attested, with natural phenomena and the “sacredness of the landscape”. Ideas “came to him” while meandering in the landscape, as if in a state of reverie. This of course served to reinforce the argument about “authentic”, unmediated connections between a people and their “natural” homeland. A tacit and forceful awareness of the landscape was also conducive of instinctive design without conscious reasoning. But this sense of the unfathomable in the landscape and in the planner’s responsiveness to it did not disavow its rational recording and ordering. As Danziger has written:
If you divide the world that you want to understand, or change it and turn it into units, the planning becomes simpler. When the space I’m working on is two dimensional, a simple grid suffices; when it’s three-dimensional, I make use of three-dimensional planning that looks like a grid. For landscape planning I make use of a geodesic basis. Afterwards the grid disappears, more or less. I believe that the adaptation of mapping techniques to art is most important, and I never even begin thinking about a landscape I’m planning before I have a precise topographical model.\(^9^7\)

For Danziger, the paradigmatic space in which a conjunction between the measurable and immeasurable appeared was the enclosed Garden. He specifically noted that his interest in the landscape was stimulated by his encounter of the enclosed Turkish bustan (a garden or orchard), and acknowledged that this space represented the ancient idea of symbolizing cosmic order on earth.\(^9^8\) As ordered nature, the garden, and by extension landscape design and architecture, were not solely predicated on intuition because their execution entailed mapping and measurement. Submitted to a certain degree of mathematical or geometrical ordering but also to things, which cannot be charted and measured with such exactitude (the most obvious being memories and experiences) Danziger had come to represent a voice in Israeli architecture according to which buildings and landscapes were conceived as “the connection between humans and nature.” As a hybrid place where culture and nature meet and demonstrating a heightened awareness of both, Dov Karmi’s Klier house, Mestechkin’s amphitheatre and museum, Rechter-Zarchi-Perri’s sanatorium and Karmi and Danziger’s Rothschild villa embodied the idea of structuring the relationship between the act of making and the artifacts’ dependence on its cultural and natural setting. These projects condensed abstraction and concreteness, intuition and method, as well as a temporal and spatial awareness of things near and those farther away. As such, they became a symbol of engagement, cultivation, and rootedness.


\(^9^8\) Ibid., 362-368.
The sun breakers (Brazil screens or “Brizim” as they are referred to by builders) have appeared for some years in Israel and have become more common and in my opinion justly so because with their aid it will be possible to adjust our buildings to better fit our country’s climate and the architects’ plans. We have known for some time that a suitable climatic solution is needed and that our buildings with all their components: external walls, ceilings, apertures etc., are not adequately used against the detriments imposed by our climate.

Although my intention is to focus mainly on sun breakers, I cannot avoid touching on solutions which had been given to external apertures in buildings.

Let us take the window as an example. Has the relationship between the area of the opening and that of the floor been sufficiently studied? As well as this ratio and the question of directing air flow or the building’s geographic location? Has a final solution been found for the opening of the window? In residential units, for example, we employ different methods for opening a window: a regular casement opening, a horizontal slider opening, a double hung opening, a horizontal or vertical pivot opening, as well as the complete sliding of the window into a double layered wall. There is no established, clear and consistent opinion regarding the window opening.

I myself try to use the window, which slides into the double wall for the following known reasons:

A. Once opened, the window does not obstruct the interior space as in the case of the interior casement opening.
B. The window does not obstruct the operation of the curtain or shade.
C. In summer the window is placed within the wall. It is not used until it rains again. The wood is preserved and the paint lasts longer.

During the summer we mainly operate the blinds not the window. In fact, also in the other seasons we tend to use the blinds much more frequently and this point cannot be ignored. The blinds carry more functions than they do in other countries, and in addition to providing protection against the sun, they also prevent the penetration of rainwater – since the window alone does not suffice for this purpose – and provide safety.

For the purpose of sun protection alone, it is possible to use the Venetian blind in our buildings, so popular in North and South America. However, this type does not fulfill the other abovementioned requirements. Even the folding blind so common in our country does not adequately respond to our climatic conditions because it completely blocks air movement and we also have reservations regarding its provision of security. In addition, it is a rather expensive element, which requires constant care. While the regular blind, termed the Haifa blind, with its rotating louvers indubitably answers most of our requirements, the difficulties involved in its
operation make us prefer the folding blind in spite of its shortcomings. In a number of residential buildings we were able to overcome the difficulties involved in operating the Haifa blind by sliding it into the wall, and had we been able to widen its louvers from 3-4cm to 9-10cm we would have produced an ideal blind. The wide louvers would enable widening the intervals between the louvers and consequently minimize the obstruction of air movement. Thus, this type is a variation of the Brazilian sun breaker, or the latter a variation of the Haifa blind. In any case, the origin of the sun breaker is in the Near East and as proof we have the blinds and pergolas in ancient Jerusalem, built like warp and woof threads of thin wooden bars, and walls built of ceramic pipe segments.

In Brazil the sun breakers were given a practical and decorative meaning and they are made today with a variety of materials: wood, ternolit [asbestos cement shingles], precast concrete, and in the future they will most likely be made of various plastic materials. Their shapes are different: vertical, horizontal, square and free (standing?). Brazil has brought a returned use of the sun breaker in its many forms in our country and other tropical and subtropical countries. The novelty is in the material, and because it is being experimented with we must use it with care and caution.

The rotatable, adjustable sun breakers made of wooden boards or aternit [concrete-asbestos] are particularly useful, which is not the case with precast and fixed boards.

In openings facing south, horizontal, rotating sun breakers are preferable and it is not necessary to use them along the full height of the opening. Also the partially shielded opening gives sufficient protection against sunbeams (as demonstrated in the Ministry of Education and Health in Rio by Niemeyer).

It is also clear that as the width of the louvers grows it is necessary to spread the louvers further apart in order to minimize the obstruction of air movement and facilitate outdoor views.

In conclusion, our requirements of blinds (protection against sun beams, water permeation and break-ins) are accommodated by the sun breakers the maintenance of which is easier and more convenient.


The beginning of modern architecture is based in an opposition to the term ‘useful archeology’ and its practical existence. It tried to create a new artistic language while employing the modern techniques of the ongoing developing mechanical era... it freed architectural activity from its routine, and purified the drawing boards from the authority of the classical books.

These bellicose declarations were encouraging but they soon lost their initial impetus. Their force was indeed important in instigating a revolution, but once this objective was met – a vacuum appeared. In order to enhance and improve these declarations and turn them into an organic and more comprehensive theory, it is necessary to work with more constructive conceptions while addressing our physical and social problems...
While Israeli architects are trying to adopt the stylistic framework of the modern movement, they tended to overlook the initial phenomena and were guided solely by climatic conditions. Their solutions were consequently partial.

The recognition in the non-essentiality of a ‘universal architecture’ – as opposed to universal mechanical techniques of the 20th century – necessarily creates a need to find regional solutions to the architectural problems in this part of the world.

Israel, a country mostly inhabited by new citizens – immigrants, is largely based on imported cultures. We can attest to Israel’s refusal to acknowledge the importance of ancient long traditions within the Mediterranean buildings as an answer to the specific problems of an ancient epoch. It [Israel] has not yet adapted to organic and valuable solutions.

Two fundamental factors influence the character of Mediterranean architecture: the climatic factor and the social factor.

Typically, the term ‘Mediterranean climate’ is geared toward the spaces in which high temperatures exist during the summer and rain exists during winter. The climate is known for its intense and warming sunlight. Sun, humidity, air movement, temperature and radiation – are factors influencing the texture of life in Mediterranean countries. In order to adapt themselves to these climatic conditions, men created in this part of the world dwellings in the shape of a ‘parasol’. This type of structure encloses an internal open or partially roofed courtyard and creates a kind of shaded ‘breathing organ’. The courtyard typically appears in three forms, adjusted to the regional climatic conditions. The first is an open courtyard. The second is partially open. The third is roofed and is typically called ‘the partial basilica’. The open courtyard can be found in Ancient Greece and was well adapted to the local climate, which permitted continuous exposure to the sky above. The home was frequently built facing south and the courtyard was usually situated there as well. The second storey was built on the north part of the house thus protecting it from northern winds.

In ancient Aram Naharaim (Mesopotamia) where the climate is more severe; the differences between day and night are more extreme; hot winds (Arabic: Hamsin) accompanied by sand storms originating in the desert, affected the structure of the Aramaean city which would be built as a labyrinth, advantageously protecting the city from the raging winds. Also the houses were built according to this example and were typically structured as two storeys enclosing and protecting an internal courtyard, safeguarded from the external climate while creating a microclimate within.

Also in Egypt we find the same courtyard only it is completely covered and closed due to the harsh climate. The house itself is built according to the basilica plan, which is formed on three parallel compartments, the central one of which was a covered courtyard, essentially becoming an internal and enclosed space, in which life unfolds throughout all seasons, and in which the house’s cool temperature would be maintained. The windows, placed high above – right beneath the ceiling, were intended to cool the air and prevent the excess heating of the ceiling. We find this type of plan even in Egypt today. The ‘basilica’ is almost entirely intact and became the space for receiving guests.

The character of traditional building in Israel is likewise centered on an internal courtyard while the main walls are doubled and situated in the north and south parts of the courtyard. The practices of living were mostly concentrated in the north part during the summer and in the south
part during the winter. The buildings were built of clay or stone, their roofs flat or arched. This massive and porous construction material proved effective because the differences of climate outdoors were not felt to that extreme, nor was the temperature difference between night and day.

Because of immigration from European countries, building in Israel assumed a European tone, which may have been positive in its essence, but lacked the characteristic traits, which would have made it effective in responding to climatic conditions.

The technique of modern building is largely predicated on a skeletal construction filled with thin walls. This method of building with thin walls is inefficient because it is unable to protect against the sun. Even though they emit heat rapidly, there is still need for constant ventilation. Apartments were built with haste, toward east and west, the warmest exposures. Naturally, according to European climatic conditions...

With the increased efforts of developing dwelling patterns commensurate with local climatic needs, two elements underwent a process of development and improvement – the balcony and the window.

The purpose of the European balcony was to admit to some extent the external life tempo into the home, and by so doing, to transform the balcony into a kind of observation platform. It is clear that such a balcony was unable to accommodate the needs in our country’s Mediterranean climate. The purpose of the balcony in Mediterranean countries – as acknowledged by Le Corbusier, is to allow the inhabitants of a house to spend some of their time in the open air, to be in direct contact with the sun, the fresh air, vegetation and water, while also preventing the sun from heating the building’s walls.

Lead by the architect Erich Mendelsohn, who headed the modern architecture movement in Israel, narrow and elongated balconies began to appear, their purpose was static and they did not yet accommodate life outdoors or protection from the sun. Gradually, architects acknowledged this mistake and began building balconies with more suitable dimensions – ‘hanging platforms’ better suited to the different needs, but still not providing intimacy and sufficient comfort.

Influenced by modern architecture in Brazil, which sought to provide a basic justification for the balcony, - these platforms began to appear enclosed in a variety of forms, allowing sufficient ventilation as well as domestic concealment. Thus the space afforded to the main room grew and the balcony was its organic extension.

Responding to the daily needs evolving over time, Israeli architects began to focus on improving building construction in terms of climatic conditions, as they rearranged the plan of the house to better accommodate these requirements. We witnessed many improvements in this respect. However, whether or not they succeeded in creating a building style commensurate with the climate, the house’s social factor, which is not less important in value and influence on the family’s way of life, has been neglected, and we still grope for and continuously employ a European style, which is surely part of the European tradition, but foreign to the way of life and age-long tradition of the Eastern nations.

The idea implicit in the Mediterranean house’s plan is essentially a composition with a dominant centre accommodating the family’s varying needs.
A central room or courtyard was always a typical home’s centre. A ground floor planned according to a simple geometrical form – a rectangle or square, enabled the concentration with the aim of interiorizing life...

The reason the Mediterranean house evolved around this form is based on the ancient family’s patriarchal social structure. The natural inclination for conservativeness also aided in preserving the plan’s essential character, which had been inherited from ancient times.

Formal authority characterized the ancient and centralistic Egyptian society. Throughout the different social sectors, peoples’ ways of life emulated those of their ruler: the formality of the inter-family relationships was expressed in the central space in which life unfolded, guests were received and in which the official seat of the family head would be situated. The access to this space was afforded through a sequence of spaces and halls, leading to the patriarch’s seat. The Egyptian house’s interior rigid plan was predicated on exact and symmetrical axes of movement, and, incidentally, contrasted the Greeks’ approach.

While the Greeks designated formality particularly to their public buildings of monumental importance, this formality is not to be found in their dwellings, which corresponded to Greek social life... However even there we find the central nucleolus from which and to which family life flows.

In Rome, on the other hand, we find an opposite approach. Roman society, under the auspice of a flourishing empire, engendered dynamism and a pursuit of the pleasures of life. The home became a stage for social contacts and a means for display and the characteristic features of a Roman house were – the emphasis on order, formal symmetry, ornamental development, and enhancement and overall comfort. A wide hall lead directly to the large central space, and from there into the large reception hall, from which one was lead to a gallery and garden.

Along the Egyptian shore cities, a unique Mediterranean style developed which was able to bridge between external beautification and the need for the family’s intimacy. It was able to achieve this by collecting the rooms around a central room or garden; a strict separation between men and women, preventing views from the street by introducing lattice work in the openings, which allowed the inhabitants of the house to look out without concern for being revealed; and by planning a separate entrance for the womens’ harem.

We may, therefore, conclude that a general characteristic feature of Mediterranean houses was the existence of a dominant central nucleus.

The differences in the nucleus’ roles, which occurred throughout the region’s history, responded naturally to the varying economic conditions and the social evolution, which had impacted the individual. This internal center was always present due to acknowledging the family’s basic and natural need: to preserve a structure and a nucleus in which the creative forces of the family unfold.

The problem of building modern houses in Israel was raised with the massive immigration wave. The immigrants, who were born and raised in a European culture, were accustomed to a certain way of life, based on the way of life practiced in their European countries of origin, and the aspiration to convey this way of life and all that it involves to a new country, to which they have come to settle – created different problems...
While the immigrants of the first Aliah [first immigration wave circa 1882-1904] tried to merge between the European style and the one they found in Palestine which was mostly the product of local inhabitants, immigrants of the second Aliah [second immigration wave circa 1904-1914] and those to follow ignored organic solutions which had been created over time, through the inhabitants’ integration in the conditions of the place.

From the beginning of the 1920s and through the leadership of the architect Alexander Bervald, a search for a 'national style’ was initiated. The emphasis was put on historical and regional foundations, overlooking social and climatic conditions. The Technion building erected in 1925 is an integration of Persian and European foundations...

The third Aliah [third immigration wave circa 1919-1924], which was typically foreign to the conditions in Palestine, brought the spirit of the Bauhaus along with it and for a long time froze the central Mediterranean plan.

The spirit of the Bauhaus, which initially sought the integration of art and industry, was not at all commensurate with the conditions in Palestine, which did not yet have a developed industry. This spirit was predicated on the science of the machine, on power and energy, but lacked any affiliation to Eastern culture – the climate the topography and the region’s fabric of life.

Socially, the character of housing construction [in Palestine at this moment] was, therefore, planned adventitiously – according to European life lacking the central nucleus and abiding to a bourgeois life style, preferring distinct different sized rooms separated by partitions and connected artificially by halls and passages.

With the introduction of new channels and their acclimation to local problems – the climate and its importance in daily life – planning and construction of housing evolved and improved – it is almost reaching full circle – a slow return to the place of origin: a central Mediterranean composition.

The physical structure of the house determines living practices in it... Modern architecture must, therefore, not only express values of organization, rationalization and aesthetics. It also bears social responsibilities, and it must express the character and direction of our culture.

In order to make good use of technology, architecture must develop a social value system, predicated on the individual, not expressed through quantitative measures, luxuries or through the technological means involved. This social standard is not manifested in yearly income or number of rooms, but – in mental health, leisure time, biological activity, and aesthetics.

Architects sharing this point of view will be able to find an expression for planning dwelling units today, in the same way as architecture in the past found the right expression for the way of life practiced by ancient cultures.
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3.1 01 “Listen! The Storm Calls Upon Us. We Dare!” / Hayim Nahman Bialik. “The People Volunteering to Redeem the Land. JFN”. 1940. JNF Archive.

3.1 03 Immigration directed toward the Israeli New Towns. Published in Handasa WeAdrikhalut, vol. 5-6, 1960
3.1 05 Existing cities and agricultural settlements in 1948.
3.1 06 a,b Comparing industry in 1943 to future industry after redistribution and development for a population of 2,650,000.
3.1 07 “Influential Areas”. ● population in May 1948. ● population at the end of phase 1 of development. Published in Sharon’s *Physical Planning in Israel*, 1951.

3.1 08 “Beersheba – A key city for the development of the Negev. 55,000 residents. Municipal area – 9,850 dunams.
Beersheba is situated at the center of the country. It is a link between the north and the south. With the development of the potash plants in the Dead Sea, utilization of the Negev’s minerals and development of the port of Eilat, Beersheba will become an important state industrial and transport center. Realizing the water plan will transform the agricultural areas to another reason for this city’s development. The new city was located north of the existing town on wide hills 200-300 meters above seawater.” Published in Arieh Sharon’s Physical Planning in Israel, 1951
3.1 09 Aerial view of the first Neighborhood Unit being built in Beersheba. The central space was to accommodate public functions and green space connecting the dwelling units with the social center.

3.1 10 The first houses in the Neighborhood Unit during construction. The houses were cast in full by special machines and planned for 4 units each. Their uniformity is a result of mass production and minimal dwelling space. The future problem will be the expansion of the units using a pre-planned scheme, the completion of the neighborhood and its improvement by adding high rise buildings, gardens, boulevards according to a master plan which has been planned.” Published in Arieh Sharon’s Physical Planning in Israel, 1951.

3.1 11 “This immigrants’ housing project was built by Amidar. It is intended for the families that reside in the adjacent transit camp. The houses included 4 minimal units. This frugal building method is based on standard components and a necessity to save building materials, and has influenced the architectural character of this neighborhood." Published in Arieh Sharon’s Physical Planning in Israel, 1951.

3.2 12 a,b,c Integral Habitational Unit in Kiryat Gat.
3.3 13  Handasa WeAdrikhalut 1959.  3.3 14  Model Neighborhood, Haifa
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Published in *Handasa WeAdrikhalut* 1961.
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