Cowsheds And Administrative Headquarters: Function And Frugality In The Institutions Of Israeli Agricultural Cooperation, 1940-1976

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Abstract
This dissertation examines notions of functional economy in the designs of workplaces for agricultural cooperatives in Israel between 1940 and 1976. In particular, it analyzes the work of architects Arieh Sharon and Emmanuel Yalan in shaping an aesthetic and practical design approach to standard and optimal programmatic envelopes. These two men played primary roles in mediating between the pre-state cooperative culture and the discourse of a workers’ state. The dissertation also introduces a number of architects who played more minor roles. Through case studies and analyses of these architects’ writings, the dissertation argues that the designs for cooperative institutions, and for agricultural cooperatives more particularly, shed significant light on the architectural discourse of progress and development in post-independence Israel. It also clarifies the ways this discourse functioned both locally and globally. Agricultural cooperatives were key players in the promotion of Jewish sovereignty in Palestine prior to independence and under conditions of resource scarcity. As such, they defined both architectural standards and their differentiated system of representation, which technical and civic design tasks adopted. Despite the centrality of industrialization and the standardization of building practices in the first two decades after independence, pre-independence influences—most relevantly in this dissertation, interwar Modernism and cooperative history—continued to define and inflect architectural culture after independence.

The dissertation chronicles how the shift after 1948 to a discourse of regional cooperation and comprehensive planning and development has reconfigured two issues of functional economy: the optimum standard and a differentiated system of rural-urban representation. By examining the designs devised for rural production facilities for the Jewish Agency and a range of co-op administrative headquarters, this dissertation shows how architects, through ongoing references to local institutional networks originating in the cooperative experience, posited architecture’s civic impact on nation-building.

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COWSHEDS AND ADMINISTRATIVE HEADQUARTERS:
FUNCTION AND FRUGALITY IN THE INSTITUTIONS OF
ISRAELI AGRICULTURAL COOPERATION, 1940-1976

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Martin Hershenzon
For my close family: Abigail, Alexander and Aram
And the extended one: Joseph (1929-2015), Fanny, and Dani
Acknowledgments:

Writing this dissertation has been a long journey – demanding and nurturing curiosity but also revealing as to my limitations as a thinker and as a person. I am very fortunate to have had intellectual, emotional, and material support from my teachers, colleagues, friends, and family. Their help and encouragement were crucial to me and this work would not have been completed without them.

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ABSTRACT

COWSHEDS AND ADMINISTRATIVE HEADQUARTERS:
FUNCTION AND FRUGALITY IN THE INSTITUTIONS OF ISRAELI
AGRICULTURAL COOPERATION, 1940-1976

Martin Hershenson
David Leatherbarrow

This dissertation examines notions of functional economy in the designs of workplaces for agricultural cooperatives in Israel between 1940 and 1976. In particular, it analyzes the work of architects Arieh Sharon and Emmanuel Yalan in shaping an aesthetic and practical design approach to standard and optimal programmatic envelopes. These two men played primary roles in mediating between the pre-state cooperative culture and the discourse of a workers’ state. The dissertation also introduces a number of architects who played more minor roles. Through case studies and analyses of these architects’ writings, the dissertation argues that the designs for cooperative institutions, and for agricultural cooperatives more particularly, shed significant light on the architectural discourse of progress and development in post-independence Israel. It also clarifies the ways this discourse functioned both locally and globally. Agricultural cooperatives were key players in the promotion of Jewish sovereignty in Palestine prior to independence and under conditions of resource scarcity. As such, they defined both architectural standards and their differentiated system of representation, which technical and civic design tasks adopted. Despite the centrality of industrialization and the standardization of building practices in the first two decades after independence, pre-independence influences—most relevantly in this dissertation, interwar Modernism and cooperative history—continued to define and inflect architectural culture after independence.

The dissertation chronicles how the shift after 1948 to a discourse of regional cooperation and comprehensive planning and development has reconfigured two issues of functional economy: the optimum standard and a differentiated system of rural-urban representation. By examining the designs devised for rural production facilities for the Jewish Agency and a range of co-op administrative headquarters, this dissertation shows how architects, through ongoing references to local institutional networks originating in the cooperative experience, posited architecture’s civic impact on nation-building.
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Chapter 1: Introduction

1.1. The Agricultural Cooperative Heritage of Progress and Development

This Dissertation proposes a revision of existing historiography; specifically, a rewriting of the history of architecture and planning in the years after the formation of the State of Israel. It offers a more nuanced account than those that exist to date, encompassing the complexities of this particular time and place, and the uniqueness of the Israeli contribution to the idea and prospect of functionalist architecture in the postwar years.

Architectural historians who view the first two decades after Israeli independence as a time of “progress and development,” typically argue that imperatives of industrialization and standardization of building techniques dominated both debate and design (Liu Hon and Kaluss 1999, Efrat 2004, Nitzan-Shiftan 2009). They identify an abrupt transition from pre-state International Style architecture to Brutalism, the latter marked by gray and anonymous features as inter-war modernism gave way to postwar development planning (Figures 1.1. and 1.2). Cooperative institutions that were affiliated with the General Federation of Jewish Workers have been a focus of this understanding of Israeli functionalist architecture. Architectural historians describe the second type of modernism as a consequence of the new scales of building production, which resulted from the establishment of welfare programs, housing, hospitals, schools, and new towns, among others.

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This Dissertation seeks to challenge and enrich existing narratives by explaining the consolidation of architectures of progress and development through a series of institutional, professional, and territorial exchanges. At an institutional level, I examine exchanges between the national vision and a widespread ethos of cooperation that originated in the agricultural cooperative experience. At a more intrinsically disciplinary level, I study the exchanges between interwar modernist design culture and the post–World War II culture of regional development planning. I also examine two types of sites, rural and urban. Functionalism, with its complex and at times contradictory meanings, was at the center of the practices this dissertation investigates.

The Dissertation examines these types of exchanges through two practices that were shaped in parallel, in both urban and rural settings: on the one hand, the design of administrative headquarters for agricultural cooperatives, focusing on the work of architects Arieh Sharon (1900-1984) and Benjamin Eidelsohn (1911-1972) for cooperatives affiliated with the Federation of the Jewish Workers (Ha-histadrut); on the other hand, the design of rural production facilities, specifically Emmanuel Yalan’s (1903-1981) designs for cowsheds, commissioned by the Jewish Agency.

I use two practices as case studies to examine the role of functionalism in Israeli architecture of the period: city-based administrative headquarters for agricultural cooperatives affiliated with the Federation of the Jewish Workers (Ha-histadrut) and rural production facilities commissioned by the Jewish Agency. Arieh Sharon (1900-1984) and Benjamin Eidelsohn (1911-1972) were leading headquarters designers, while Emmanuel Yalan’s (1903-1981) designs for cowsheds were key rural production
facilities. As they defined and complicated Israeli functionalism, these two practices were transacted between locations, architectural types, political agencies, and architects. By coupling cowsheds and office building—perhaps an atypical and unpromising pairing—I mean not to provoke the reader but rather to find the key to the unexpected interconnections between functional and civic architecture.

Beginning in the 1930s and until the end of the 1970s, these architects, together with various collaborators whose work I examine, played significant roles in large-scale planning and design for cooperative institutions. Recent scholars are not wrong to suggest that the practices of Sharon, Eidelsohn, and Yalan exemplified strategies the current scholarship attributes to a discourse of progress and development. They emphasized functional economy, or the adequacy of design to program in terms of optimization and standardization of design components, as well as an understanding of design as forging regional cooperation under the framework of the newly-founded nation-state. However, their projects also reveal distinct interpretations of modernist notions of progress and development—and allied conceptions of functionalist economy—within both local and global contexts.

In the case of Sharon and Eidelsohn, for example, the systematization of building modules and regional civic ensembles presupposed a monumental and expressive representation of functional economy, commemorating the origins of cooperative institutions. In the case of Yalan, however, standards of rural buildings defined self-built and flexible construction systems, empowering settlers and facilitating cooperation in regional sites of agricultural production. The concern in this context was essentially,
though not exclusively, practical. The distinctions between these architects and their practices shed light on the diversity of development trajectories after 1948. They also demonstrate the ways this culture deviated from a model of progress developed elsewhere.

Through an analysis of the practices of Sharon, Eidelsohn, and Yalan, this Dissertation asks: how did functionalist design credos help shape a vision of an Israeli civic society after independence? What were the cultures of functional economy—as reflected in architecture—and how were they shaped through this institutional history? Finally, I ask: how can these architectures be seen as evidence of the state as an historical agent of design? By what measures, historical and analytical, could distinct programs of a national polity enter into a common framework of investigation concerning design under a modern state?

1.2. A Historical Note on Cooperative and Land Development Institutions

This study treats agricultural cooperative institutions established from the 1910s onwards as a single movement, which historically grew into the Israeli labor movement, which was organized in 1930 as the Mapai party (Mifleget Poalei Israel). This category includes the institutions responsible for developing and managing Israeli settlements, collective villages (kibbutzim) and the cooperative workers’ villages (moshavim). Design for these institutions involved rural settlement plans and buildings. I also treat

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2 Members of the second wave of immigration, originating from Eastern Europe (primarily Ukraine, 1904-1914) founded Jewish cooperative movements in Palestine as social and political organizations of working youth, as a mechanism to promote Jewish productive labor and as a primary means to develop Israel economically and territorially. In the second half of the first decade of the 20th century, working alongside the Keren Ha’ayomet Le’Israel (the Jewish National Fund), the two major youth associations were Ha-poel Ha-itzair and Poalei Zion.
institutions responsible for distribution of produce and credit, as well as the management of coop villages as further manifestations of the same movement. These organizations, which existed under the Jewish Federation Workers (Ha-histadrut) after the 1920s, primarily commissioned designs in urban centers. In this inclusive designation, agricultural cooperatives and land development institutions were responsible for a broad program of territorial and social development, including the various design tasks that I treat as a unit.  

The works of Emmanuel Yalan and Arieh Sharon allow this Dissertation to examine design notions of simplicity and economy across different territories and tasks, as they were defined relative to distinct imperatives of civic representation, alternately performative and calculative, though equally rhetorical and expressive in nature.

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(1) See also Anita Shapira, Visions in Conflict. [in Hebrew] (Tel Aviv: Am Oved, 1987). 157-207. As Shapira and Shafir have underlined, leaders in these institutions generally had middle-class backgrounds but little or no experience in academia. The practical, managerial agenda that drove them also aligned with the cooperative and collective settlement movements’ strict ideology. On the transition for Mapai pre-state political role to the post-independence era, see Mitchell Cohen. Zion and State: Nation, Class, and the Shaping of Modern Israel. (New York: Columbia University Press. 1987).

3 It is not my purpose to write histories of these institutions, but to trace a series of events that led them to profoundly influence the history of Israeli architecture. The dissertation focuses on exchanges of design practices with the inter-related institutional formations of the Jewish Agency, the Agricultural Union, and, more tangentially, the collective movements of the National Kibbutzim Association, the Unionized Kibbutzim Association, and the General Federation of Jewish Workers. Each of these institutions, before independence and after, was responsible for a wide range of commissions. As a major mechanism of subventions offering technical and social aid to every new rural settlement throughout this period, the Jewish Agency built a particularly large number. This study addresses these movements in their entanglements, specifically as they came to meet and correlate with the establishment of state planning institutions. For the history of the Jewish Agency, see Ernset Stock Chosen Instrument, the Jewish Agency in the First Decade of the State of Israel. (New York : Herzl Press ; Jerusalem: Hassifiya Haziyonit, 1988). Planning historian Smadar Sharon addresses the agency’s role in physical planning. Not Settlers but Settled – Immigration, Planning and Settlement Patterns in the Lakhish Region in the 1950s. [in Hebrew] (Tel Aviv University; Ph.D. dissertation, 2012).
1.3. Functional Buildings: From Pre-State Cooperatives to Post-Independence Regionalism

The major arguments of this Dissertation concern how Israeli architects’ notions of functional and economic design responded to an ethos of agricultural cooperation. Standardization primarily took shape under the purview of cooperative and land development institutions and their role in establishing sovereignty under conditions of resource scarcity. Architects working for these institutions understood the issue of standardization as subject to a tension between the need for unity and identity across territories and tasks and the need for aesthetic and political differentiation of geography and tasks.

The requirement for unity and difference found its clearest expression in two types of programs: the technical and economic, and the institutional and representative. Technical/economic programs included rural and industrial production and storage facilities as well as structures that served as a primary settlement kit, such as shacks and tents. Institutional/representative programs, included health-fund and convalescence centers, social and cultural co-op centers, and administrative headquarters.

This Dissertation uses cowsheds as a case study of technical/economic programs and administrative headquarters as a case study of institutional/representative programs. (Figure 1.3.) Jewish architects in the pre-state period viewed the cowshed as an absolutely utilitarian tool or mechanism of biological production that served a primary economic function in the life of a settlement. This status resulted from the sheds’ role in consolidating the dairy sector, which became central to the cooperative village economy.

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4 Shapira. 362.
from 1910 until 1955. Beginning in the 1930s, administrative headquarters served as social and cultural meeting places for rural and urban workers (Figure 1.4.). Architects understood these structures as involving civic representation. Articulation of their representative role thus merited expenditure for unique gathering spaces, graphic art, wall reliefs, and sculpture. By contrast, land development administrators and architects defined cowsheds as a type of program that required radical economy. The result was a simple and austere architecture. These same actors envisioned administrative headquarters as the epitome of coop management. Hence they expected these structures to resonate with rural simplicity and the pre-state ethos of “first beginning on the ground”.

The educational, processional, and cultural background of the designers also complicated their approach to design. Architects working for cooperative institutions promoted modernist functional credos as a response to the dual programmatic bent—attitudes they brought to Israel from the countries in which they were professionally trained. One such credo was Hannes Meyer’s idea of the functional building as an outgrowth of social practices that represented pure economy. Meyer’s students at the Bauhaus included Jewish architects, such as Arieh Sharon, who brought his thinking to Palestine. However, the promotion of functional economic building also relied on conservative strands in interwar modernism, which were predicated on pre-metropolitan and rural cultures. These strands tended to blend with Meyer’s thinking as well as that of Yohanan (Eugene) Ratner (1891-1965), Alexander Klein (1979-1961) and Jacob

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5 These terms were used in Twenty Years of Building, Workers’ Settlements, Housing and Public Institutions [in Hebrew]. (Tel Aviv: the General Federation of Jewish Labour in Palestine, 1940). See for example p. 7 and 127. Discussion on this relation between the two programs is at the center of chapters 2 and 3.
Metrikin (1902-1981), architects who gained positions in co-op administrations in the 1930s.

After Israeli independence in 1948, co-op and state development institutions called on architects to define design strategies that would respond to a revised ethos of cooperation. This involved a shift away from the pre-state dominance of the collective village (the kibbutz) as a primary settlement model, to a regional development model based on a system of settlements, including small industrial towns and villages and in which the cooperative workers village gained prominence (Figures 1.5 and 1.6). This revision corresponded to the establishment of a discourse on statism by Israeli first Prime Minister David Ben Gurion (1886-1973). It responded to the doubling of the Jewish population after independence and to a new dominance of North African and Asian Jews, groups settling authorities viewed as un-fit for the more radical collective ethos of the kibbutz.

During Mapai’s tenure, architects recast inter-war functional thinking in the regionalist terms of comprehensive planning and development. This involved a reframing of the notion of buildings as capable of igniting positive dynamics of regional growth. This regional model also prompted new programs through which functional ideals were reclaimed, such as agricultural processing plants and institutional complexes for universities and hospitals.

In spite of changing conditions, designs for cowsheds and administrative

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6 Mitchell. 85-105.
7 This revision also involved new understanding of the pioneering ethos, including territories, professions and social groups outside the working settlement (standing for the collective and the cooperative workers villages). See discussion in chapter 2, 3 and 4.
headquarters retained their role in the local architecture culture as monuments to co-op beginnings and functional design. The Dissertation reconstructs this role in the writings and designs of the first two and a half decades after independence. Thereby it clarifies ways these programs accommodated a gradual shift from Israel cooperative heritage to a neo-liberal regime after 1977.

1.4. Scholarly Contribution

The topic of what I will call functionalist civics intersects with various fields of inquiry. This study primarily engages the historiography of modernist architecture in the context of nation-building and development. But my study also contributes to the history of workplace planning and design, and the political theory of institutions vis-à-vis biopolitics and economy. Common among these investigations is a question about the role that functionalist thinking plays in the formation of civic and institutional representation.

Several scholarly studies of post-World War II architectural culture in the context of state-formation and development explore their functionalist agendas. Lawrence Vale examined case studies and strategies of representation of a nationalist identity in the design of post-colonial governmental complexes. He argued that, notwithstanding how architects and political leaders understood the politics of their designs, they sought to represent the political regime and contribute to the formation of modern citizenship. Historicists focusing on specific national or post-imperial contexts have further argued for

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10 324-327, 50-51. Vale primarily discusses three political points of view these designs communicated: that they were “apolitical,” that they were analogical “microcosms” of the existing regime, or that they were the ideal figuration of its future.
the importance of international style and of high-modernism to state formation. They claimed that functionalist assumptions regarding modernisms technological and apolitical universalism were central to both the inter-war and postwar political culture of governance. Mark Crinson’s history of post-World War II British architecture claimed such assumptions served to cleanse Britain from its imperial neo-classicist heritage. Sibel Bozdogan highlighted the role similar assumptions played in representing secular modern politics in the Turkish Republican revolution.

The studies of Crinson and Bozdogan, together with recent scholarship on Third World or developmentalist modernism (Duanfang Lu 2011, Avermaete 2012, Stanek, 2012, and Muzaffar 2012) were also important in emphasizing two other aspects: first, how distinct architectural programs (more or less institutional and related to governmental organs) participated in issues of political and civic representation, and second, how the enlistment of modernism in political representation resulted in the hybridization of functionalist thinking through various encounters in diverse geo-political settings. In this scholarship, hybridization referred to the adaptation of western ideals relative to pre-modern and modern spatial practices in the third world, and to institutional formations emerging through the cold-war technical-aid programs.

In the historiography of Israeli architecture after the 1948 independence, historians Rachel Kallus and Hubert Law Yone have argued that minimization of living spaces and standardization of building types defined strategies of “social uniformization.”

They served as architectural translations of the national ideal of a melting pot.\textsuperscript{14} Similarly, Zvi Efrat coined the notions of “state” and “gray” architecture to argue for a correlation between a state ideology and the practices of architecture and planning.\textsuperscript{15} He defined the propagation of architecture in non-washed concrete, which was generally based on a serial, systematic design (in plan, façades and siting), and “a massive construction project, with no historical precedent in its relative scale, conditions of realization and pace of development,” of 1950s to mid 1960s Israel as “grayness.”\textsuperscript{16} He identified the systematic and rational approach of the encompassing blueprint of the Israeli first national plan (1948-1953) and the design of architectural programs such as housing and institutional headquarters as examples of grayness. Through this description, specifically, his points on the primacy of plan and façade grids, as well as the massively reproduced brise-soleils, Efrat interpreted grayness as an artificial, top-to-bottom implant. Grayness depicted architecture that was systematically implemented throughout discrete territories by state institutions.\textsuperscript{17}

Historian Alona Nitzan-Shiftan has claimed that Efrat’s historiographical predilection for grayness was itself part of a political self-cleansing that she also identified in the preservation of the white city of Tel Aviv. According to her, the functionalist idioms of both the International Style Modernism and the post-independence Brutalism affirmed a secular vision of Israel. Both used a modernist civics to guarantee a

\textsuperscript{14} Rachel Kallus and Hubert Law-Yone. Ibid.


\textsuperscript{16} Efrat, 80.

\textsuperscript{17} Efrat’s claim as to the key role that the grid played in plans and elevations during the first two decades after independence is typical of his view of the period. He interprets the brise-soleil as what “cancels [the building’s] uniqueness and ascribes it into a massive system of production and distribution of shelf products...in rough schematization, the Federation architecture [\textit{Adrichalut Ha-histadrut}, encompassing the Jewish Agency, referring to state and gray architecture] is characterized by skeletal and grid-like character.” 413.
seemingly neutral expression of the Israeli place not identified with Israeli settlement politics. ¹⁸

This study responds to Nitzan-Shiftan’s call to reconstruct alternative modernisms taking shape under the nation state project, which align with modernist hybridity found in recent historiography on architecture and state formation. ¹⁹ In this vein, my analysis emphasizes various cultures of function and economy that were shaped through distinct territories and institutional cultures under the project of state formation.

Studies of design and planning for workplaces in early and interwar modernism have added another dimension to the understanding of civic representation. ²⁰ Stanford Anderson claimed that functional straight-forwardness (Sachlichkeit) and formal simplicity in Peter Behrens’s design for the AEG turbine factory in Berlin consisted of holistically representing technology and German industrial power through a potent art form and symbol. ²¹ Similarly, Annemarie Jaeggi argued that Walter Gropius and Adolf Meyer’s design of the Fagus factory (1911-1925) furthered the notion of functional straight-forwardness through simplification of formal and material configuration and

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²¹ Stanford Anderson, Peter Behrens and a New Architecture for the Twentieth Century. (Cambridge: MIT Press, 2000), 105-106, 127-128. Anderson’s interpretation was based on the tracing of Behrens’s interests in larger 19th century architecture culture and in particular with figures such as Alois Riegel, Gottfried Semper and Karl Bötticher.
transparency, rendering the building a manifestation of “interior operations.” Other studies in the history of architecture and technology (Bradley 1999, Biggs, 1996, and Hughes, 1990) have shown the contribution of late 19th century and early 20th century engineering philosophy and scientific management of labor to similar notions of functional simplicity.

Functional straight-forwardness and the expression of work and economy are different in the examples I will investigate. I gain this understanding through a survey of Israeli functionalist practices, idioms, and expressions rather than through re-claiming a unified grayness. Distinct modalities across Israeli territories and institutions shaped workplace functionalism. Emmanuel Yalan and Arieh Sharon’s engagement with it expressed more or less personal architectural practices. Yet, the notion of functional directness often defined a context through which exchanges with other professional fields and terrains also shaped architectural knowledge. Despite the specifics of the Israeli case, there are parallels elsewhere. Harry Francis Mallgrave has described notions of functional directness in late 19th century German thinking. These accounts commonly referred to and evoked non-metropolitan, rural, and vernacular cultures of design. Thus, it is hardly surprising that Arieh Sharon and Emmanuel Yalan’s practices for agricultural

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24 In the scholarship discussed above, these fields primarily included engineers, industrialists, and inventors.
cooperatives identified a model of functional economy in the field of rural settlement. Their practices defined their own model by way of recurrent exchanges with this field, standing for a real or imagined territory. Both architects, as well as a wider cohort of architects working for these institutions, regularly identified this model with the knowledge of rural engineers and planners, agronomists and settlers. Yalan’s work for the Jewish Agency, for example, exemplified functional design in which the architect actually interacted with settlers and rural development experts. It also defined more artistic invocations of rural settlement, as in the case of Arieh Sharon’s work for the Agricultural Union. These two cases reveal the wide spectrum of meanings the functional ideal of economy could contain. These included notions of operational calculations, adaptable standards, site-specific making-do (as read through Yalan’s work), as well as (in the case of Sharon’s work), notions of standards, which were predicated on the idea of representation and expression of foundational simplicity.

A final point regarding the literature surveyed here is necessary: an understanding of the civic and representational attributes of functionalist economy is also key to political philosophy of institutions. Foucault’s analysis of the formation of modern European states (roughly refereeing to the 17th and 18th century) underscored how state and para-state institutions’ governance became a matter of bio-political rule. According to Foucault, such rule turned to the management of populations and economy (demography and the regulation of production, circulation, and exchange of produce) within an enclosed territorial unity.26 Philosopher Giorgio Agamben challenged this

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understanding of modern political institutions through his analysis of medieval monastic thought. Reconstructing how Franciscan system of laws were embedded in what he called a *form of life*, Agamben highlighted the spiritual dimension of practical, use-based, and frugal patterns of individual and communal living or *bios*.

The Dissertation uses the work of Foucault and Agamben as lenses to scrutinize architectural functional thinking. Foucault’s materialist and operational notion of modern governance frames political institutions as means to support the transparent, direct, and matter-of-fact (*sachlich*) regulation of life. Albeit a different context in which Agamben developed his analysis, his view on bio-political rule has implications analogous to Anderson and Jaeggi’s interpretations of modernist functionalism. In contradistinction from Foucault’s point, Agamben’s analysis of pre-modern institutional regulation sought to sublimate bio-political operations to a cultural or civilizational project.

This Dissertation finds correspondences between modernist functional agendas and the formalization of a civic space by Israeli cooperative and land development institutions. By definition, the institutions that have preceded and founded the Israeli state were responsible for issues of bio-political rule. Through their engagements with such rule, they devised ideal and utopic configurations of collective forms of life.

Further in line with the difference between Agamben’s and Foucault’s notion of bio-politics, the pre-state ethos of practicality and economy of Israeli agricultural cooperatives concurrently resulted from two sources. The first was Zionist philosophers

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and social thinkers whose collectivist ideas drove some of the early workers’ movements of the second and third waves of Jewish immigration. A second source, forming a parallel and more concrete ethos were conditions and experimentation in rural development and organization of collective life in circumstances of resource scarcity.\textsuperscript{28}

The architects I examine were not politically autonomous. Rather, they grew as professional agents within political institutions, and their professional practices, despite the large-scale measures of the projects reviewed, grew organically in this soil. Thus they were agents, offering and articulating their professional cultural knowledge from within and alongside the emergence of the political frameworks of the state.\textsuperscript{29} In accordance with the two sources of co-op thinking on frugality, the practical and the ideological, architects working for political institutions considered bios as both a goal to achieve through deliberate calculations and as a project of ethical representation. Like those two sources, these two design rationales were recurrently in dialogue with one another within a single project.

1.5. Methodology and Resources

To examine functionalist cultures, this Dissertation makes use of various methodologies and resources. Following inquiries in the anthropology of institutions and the sociology of scientific knowledge, I reconstruct the articulation of functional notions as the result of institutional linguistic classifications (Douglas, 1986), and as being

\textsuperscript{28} For the characterization of work conditions and ethos in the early days of the Labor Force that historically founded both the Federation and the National Kibbutzim Association See Elkana Margalit, \textit{Documents of Research, Commune, Society and Politics, the Labor Force on the Name of Joseph Trumpeldor in Eretz Israel.} (Tel Aviv: Am Oved, 1980). 89-121.

\textsuperscript{29} Such an understanding of the architect parallels Antonio Gramsci’s notion of the organic intellectual. See \textit{Selections From the Prison Notebooks.} (New York: International Publisher, 1971). 10-12.
embedded in a cultural geography of knowledge (Gupta & Ferguson, 1997, Gieryn, 1999). Towards this end, this Dissertation analyzes the mutuality between the discipline of design and institutional rule through the writings of individual architects and the publications of these institutions. Rather than assuming a clear synchrony or divide, these resources shed light on junctures and disjunctions between architects’ personal and more institutional voices. Such analysis highlights how these voices, at times complementary or opposed, disclose various modalities of interaction between politics and architecture.

To analyze architectural design, the Dissertation uses insights from morphological studies of building types. In particular, I emphasize architectural layouts in various scales and the multivalent definition of spatial limits to pinpoint the perspective on form-making they express. The research included in-situ visits to buildings in the Tel Aviv Kirya and in the Ta’anach region and the examination of architectural drawings.

Finally, the Dissertation makes extensive use of archival collections, private and institutional, including Arieh Sharon and Emmanuel Yalan’s collections, the Kibbutzim movements’ archives, and the cowshed archive. These have not been adequately studied in the past. I also interviewed collaborators (architects, engineers, settlers) and family members of the studied architects as well as contemporaries that had impacts on Israeli architectural discourse during the 1960s and 1970s more broadly.


1.7. Synopsis

The study is organized in two pairs of chapters, one focused on architectural writings and the second on issues of design. Chapters 2 and 3 examine the ways in which the articulation of functional agendas contributed to Israeli architectural knowledge relative to issues of institutional representation, especially in the transition from co-op management to independence. In them I argue that linguistic articulation—combining words with designs and visual images—as much as modes of design and building development determined functional economy of rural and urban buildings.

Chapter 2 argues that land development institutions, both co-op and state-based, have remained protagonists in Israeli architectural historiography and professional knowledge, as publishers, commissioners of design, and ideological agents. The chapter develops a chronological analysis. It opens with a publication by the General Federation of Jewish Workers celebrating its first 20 years of operation, in which architects first created a synthetic vision of a functionalist approach to the development tasks of co-op institutions. The chapter reconstructs the publication’s construing of functional ideals relative to issues of initial territorial development in the context of both technical-economic and institutional-representative design tasks. I claim these ideals resulted from a negotiation both between rural and urban sites and programs, and between distinct rationales: an emphasis on productivity and representation of an austere rural aesthetic.

Reviewing shifts after independence in 1948, the second part of the chapter shows how, in the context of the establishment of a regional development discourse, architects and critics Aba Elhanani and Aviah Hashimshoni furthered claims in favor of functionalism. They promoted it as a mediating value that allowed for institutional and
cultural continuity in the transition to statehood. The section interrogates how such promotion silenced the concurrent development of Israel rural frontiers and programs in favor of a metropolitan notion of simple civic architecture.

Chapter 3 examines two articulations of the idea of functional building economy—a calculative rural one and an expressive urban one—in architects Emmanuel Yalan and Arieh Sharon’s final books. These two books, published near the end of the Mapai party rule, communicated the summation of two co-op institutional agendas that were congruent with the statist project of Mapai (the Jewish Agency’s and the General Federation of Workers). I argue that the two books also sought to establish the architects’ images as national and global development experts. Examining how they relied on invocations of the intervention in the first stages of territorial development, the chapter highlights the lasting role rural buildings played in grounding architects’ claims regarding their capacity to shape Israeli civic society and space.

The final two chapters examine designs of cowsheds and urban administrative headquarters in the works of Emmanuel Yalan for the Jewish Agency and of Arieh Sharon for the Agricultural Union Cooperative. Both chapters chronicle how each program gave rise to a negotiation between the credos of optimization and standardization and the needs of the specific publics and sites between which these programs mediated.

Chapter 4 analyzes Emmanuel Yalan’s designs of rural buildings, focusing on the 1960 open cowshed. The chapter chronicles how this model portrayed a shift in functionalist approaches from the pre-state models that were non-flexible and compact to
an incremental facility. The latter conjured Taylorist production optimization with developmentalist user adaptability. This second rationale arose from pre-state cooperative cultivation practices and the post-independence national project of social integration and modernization. The chapter argues that rural building design was a key topic of institutional knowledge production on regional planning. Through this rural modernization project, planning experts, architects, and settlers exchanged building and work standards towards an inscription of new social strata in Israeli productive force and, by extension, civic society.

Chapter 5 analyzes the designs of administrative headquarters for agricultural cooperatives in Tel Aviv. Through primarily five case studies, I examine another genealogy of functionalist optimization in the context of civic urban representation. The chapter shows how functionalist civic design corresponded to various modes of and expectations regarding displaced representation. This representation adhered in part to urban design models that became widespread international tokens of civic architecture in the aftermath of World War II. It also evidenced a form of hybridization that was based on the representation of Israeli cooperative history. The chapter analyzes various modes of hybridization through which architects sought to create a civic representation that would communicate these institutions’ trans-local and trans-generational character.
Chapter 2. From Building to Architecture - Articulating a Functional Economy

Before it can perform its entropy-reducing work, the incipient institution needs some stabilizing principle to stop its premature demise. That stabilizing principle is the naturalization of social classifications. There should be an analogy by which the formal structure of a crucial set of social relations is found in the physical world, or in eternitiy, anywhere, so long as it is not seen as a socially contrived arrangement. (48) Mary Douglas, *How Institutions Think*, (Syracuse: Syracuse University Press, 1986)

This chapter is the first of two that examine how architectural writing came to define paradigms of functional building. While the subsequent chapter provides a diachronic comparison of Arieh Sharon’s and Emmanuel Yalan’s final books from the mid-1970s, the current chapter reconstructs a chronological account of how functionalist design values formed with respect to land development and co-operative institutions. Specifically, it chronicles the transition from the pre-independence moment to statehood, and shows how the emergence of functionalism paralleled a shift from interwar approaches of the New Building (*Neues Bauen*) to post-World War II regionalist and developmental modernism. Relative to this transition, the chapter asks, what definitions and narratives regarding functional buildings did Jewish and Israeli architects use to represent land development and co-operative institutions? How did writings articulate rural and urban design tasks? And in what ways did these writings respond to the economic and civic agendas of such institutions?

Three primary texts frame this inquiry: *20 Years of Building: Workers’ Settlements, Housing and Public Institutions*, a publication by the General Federation of Jewish Laborers and the Association of the Engineers, Architects, and Surveyors (1940), Aba Elhanani’s “In the Praise of Mediocrity in Architecture,” an essay published in the Literature and Culture section in Israeli daily newspaper *Ha’aretz* (1965) and Aviah
Hashimshoni’s essay “Architecture” (1963), written for the volume *Art in Israel*.

20 *Years of Building* demonstrates the advancement and translation of interwar New Building vocabulary in the context of the establishment of a proto-national cooperative management. “In Praise of Mediocrity…” and “Architecture” represent the shift to a national understanding of land development and the revision of New Building vocabulary through terminologies affiliated with regionalist and comprehensive planning discourse. Together, these texts illustrate the distinct functional design vocabularies and rationales Jewish and Israeli architects developed in order to give institutional representation to a cooperative or collective economy. These texts evidence the ways in which architects’ writings negotiated the mutual acculturation between political and social institutions and the values of modernist design.

Israeli architectural scholars have reconstructed the discourse of the pre-independence, interwar, and post-independence decades in a non-systematic manner.32 According to such scholarship, the period preceding independence was understood in terms of models of a progressive and western sachlich architecture and expression, while the period succeeding independence shifted to the discourse of “progress and development” and “grayness.”33 This work explored the modalities of transition in the domain of built forms, focusing primarily on shifts from International Style to Brutalism. The role of writing in revising models of design—specifically regarding functionalism—has not been fully assessed. The chapter draws on anthropologist Mary Douglas’s

32 Important precedents that pursued discourse analysis are the works of Efrat (2004) and Nitzan-Shiftan (2004, 2009).
argument regarding the roles that institutions play in defining social categories, particularly their reliance on natural analogies to claim the legitimacy of their systems of classification. It interprets the ways in which the formation of design categories through writing established the legitimacy of Jewish and Israeli institutions.

By analyzing three major publications—one preceding and two following independence—the chapter reveals the shifts that occurred in the disciplinary and institutional frameworks that shaped notions of functional building. As shown in 20 Years of Building, prior to independence, the General Federation of Jewish Laborers and the Jewish Agency played prominent roles in defining distinct yet complementary co-op design agendas, and articulated the representational stakes of functional building. After independence, architectural writers recognized the state as such as an ultimate institution that affected design rationale. The following analysis reconstructs the negotiations and tensions in what were not always synchronized exchanges between modernist design values and these shifting institutional frameworks.

2.1 Learning from the Shacks – 20 Years of (Co-op) Building

The public building serves as a faithful mirror of the cultural and social life of a given nation in a given period. And whereas the normal (ragil) useful building [bynian, meaning both the noun building and the act of construction] gives expression to the daily life of the individual, family and tribe—their habits and customs—the public building comes not only to serve as a general and public goal, but also to stress maximal effort of the creative powers and means of the time. It is clear that one never economized in the foundation of public buildings: land, money, time, and devotion, in short all the material and creative forces in favor of the creation of projects that reflect the period in which they were founded (Luxor, Karnak the Acropolis, Medieval churches). In the private and collective will to create big deeds lies the big danger of deeds that go beyond the framework of material possibility, especially in the times of transition, in times lacking in building tradition and social public life as our own period. (117) — Arieh Sharon, “Public Buildings in Palestine,” in 20 Years of Building: Workers’ Settlements, Housing and Public Institutions, 1944. (Figure 2.1)
Architecture. Despite all the theories of half city/half village and despite the difficulties in material and budget, one has to remember that the complex outer form infiltrates in an unconscious manner into the deep character of men and hence one has always to find the form that is most fitting both for the cheapest and simplest building(9).... In architecture there is a lack of any relation to the village, the ground [karka], simplicity and modesty. Everything is calculated only on representation [representativi, also implying formal manners and urban character. m.h.] (29) — Unidentified author, “Tour in the Exhibition: Living Quarters in the Kibbutz (collective settlement)” in 20 Years of Building: Workers’ Settlements, Housing and Public Institutions, 1944. (Figure 2.2)

The Technical Department of the Jewish Agency. The general approach to the question [of design and construction] is the approach of the budget principle. It is not true that we have become rich. In economic terms we have not yet distanced much from the times in which we wandered in tents and shacks, only our apartments are now fixed (na’asta keva). Foundation and fixed construction materials [missing words in the original. m.h.]. Still the house is to some extent a house to the pioneers of the Hebraic agriculture in Erez-Israel. The Technical Department [of the Jewish Agency] still maintains the principles of the beginning of collective settlement on the ground [Reshit Ha’hytayshvut Ha’kibbutzit al Ha’karaka]. The member is also, in his house, a kibbutz member. There is no real concern as to privacy in his apartment. Service rooms are still located in pavilions distanced from the apartment houses. We remember well that the cowshed precedes in its construction and its sanitary improvements the dwelling of man.... And the same cautious and conservative approach, justified or not in its totality, is also expressed in the architecture of the houses. A dry architecture as is the understanding of roles and possibilities of the life of the member in the agricultural kibbutz are completely poor and narrow. The Technical Department of the Jewish Agency will argue that the improvement of the food plate of the kibbutz member is way more important than the addition of an individual balcony to each apartment. These improvements went in the direction of necessary revisions, as the addition of thermic isolation in homes’ walls, here too from the understanding that one has to maintain the power of the worker and to allow him his rest after a day of work. (7) — Unidentified author. “A Tour in the Exhibition: Living Quarters in the Kibbutz (collective settlement)” in 20 Years of Building: Workers’ Settlements, Housing and Public Institutions, 1944. (Figure 2.3)

More than other publications in the decade preceding independence, 20 Years of Building: Workers’ Settlements, Housing and Public Institutions (1940) represented the contentious and fertile exchanges that occurred between Jewish co-op and land development institutions and modernist design agendas (Figure 2.4). Through its collectively assembled and tentative statements, it reflected the ways in which Jewish architects articulated functionalist design claims in response to what the publication
discussed as concerns exogenous to the discipline of architecture. These concerns included the basic provision of the settlement’s economy, together with its minimal conditions of living. In this sense, architects, engineers, and administrators understood modernist functionalism as a local, economic response to the imperative to develop co-operatives socially and territorially with scarce resources.\textsuperscript{34}

The publication’s promotion of New Building thinking challenged previous notions of such an approach as a pre-given western and progressive model for the territory of Palestine.\textsuperscript{35} Instead, the publication construed the interdependent categories of building and architecture relative to ideal and concrete geographies and a spectrum of programs. This spectrum ranged between rural and urban programs and those that were alternately ordinary and monumental or technical and institutional. In articulating functionalism and economy in the context of this spectrum, the authors of \textit{20 Years of Building} exercised a concerted judgment of value and design \textit{decorum}. At stake were the modalities, sites, and tasks potentially affected by design, and through which the co-op economy and resource scarcity could enter the realm of architectural enunciation. By addressing these non-design issues through claims on modern building standards, the architects featured in the publication claimed responsibility for these issues. By extension, they posited co-op modernism as a practice that was in tune with a local culture of frugality, both Jewish and native Arab.


\textsuperscript{35} Such is the reading that Alona Nitzan-Shiftan developed of the promotion of New Building agenda, specifically through the mid-1930s issues of the journal \textit{The Building in the Orient}. Alona Nitzan-Shiftan. (2004).
The three epigraphs above exemplify the ways in which Jewish architects working for land development and co-op institutions advanced New Building approaches to respond to the task of civic representation. Their ideas ranged from a notion of civic architecture of excess to the rural building of economic austerity. This range framed the central assumptions of Jewish architects regarding civic representation in the service of such institutions at the time.

While previous scholars have considered it a consistent statement promoting modernist credos in the name of Jewish progress in Palestine, 20 Years of Building communicated a diverse, at times mythical and non-progressive stance towards modernist design thinking. This resulted from the composite nature of the publication’s agenda as it merged the voices of architects, engineers, and co-op bureaucrats. These reflected a multivalent project that combined planning, design, and construction—all undertaken by the Federation of Jewish Workers in Palestine and its interrelated co-op and land development institutions. Responding to the mission of co-operative planning and living, as well as the swath of institutions directing such projects, the publication advanced the civic and constitutive power of Jewish modernism as a matter of negotiation between values, design tasks (or programs), geographies, and institutions.

Sharon and the non-identified authors writing the “Tour in the Exhibition” section in 20 Years of Building, cited above, reflected on how modernist design expertise defined an ideal response to land development and co-op institutions. They described Jewish

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Agency rural buildings as stemming from a “budget principle,” conjuring the “first beginnings” of collective settlement on the ground. Distinctly, while adhering to the idea of modest building design, they acknowledged that public buildings, commissioned primarily by the General Federation’s co-op institutions, resided outside of everyday budget calculations. They portrayed the ostentatious qualities of public buildings as not conforming with existing “material conditions”—with the ethos of modesty and simplicity—and as lacking “any relation with the ground.”

In view of the institutions’ imperatives of economy and an all-encompassing mission of territorial development, the civic power of modernist agendas and expertise was at times an issue of a cultured or disciplined “simplicity” as read through this notion of the public building. At other times, primarily in the field of rural buildings, this power originated in a silenced design practice in the face of bare economic facts. The first case, of co-op urban monuments, while recognizing the legitimacy of surplus investment in the design of public buildings required not “overstepping the framework of material possibilities.” In this respect, it associated the issue of budget, and its fitting use, with a proper mirroring of “cultural, social, and public life” of the Jewish workers’ collective.37

The second case of co-op rural building, stated primarily in relation to the Jewish Agency practice, set workers’ life requirements (productivity, shelter, and food provisions) as initial development measures that seemingly excluded design rationale.38 These buildings

37 This version came from the short English translations of several of the essays at the end of the publication. Arieh Sharon, “Public Buildings in Palestine,” in Twenty Years of Building, Workers’ Settlements, Housing and Public Institutions (Tel Aviv: the General Federation of Jewish Labour in Palestine, 1940), 127 [English version].
resulted in “A dry architecture as is the understanding of roles and possibilities of the life of the member in the agricultural kibbutz are completely poor and narrow.”

The first epigraph, taken from Arieh Sharon’s essay on public buildings, surveyed the co-op administrative seats in Tel Aviv, Jerusalem, and Haifa. In it he affirmed the legitimacy of economic expenditure in view of the accentuated expression public institutions requires (Figure 2.1). However, representing what was a questionable assumption following the economic austerity of the second half of the 1930s, Sharon qualified this call. He emphasized the need to align such extravagance with the “cultural and social life of a given nation” and avoid the risk of excess or exaggerated monumentality. He attributed this risk to “times of transition” and a “lack of building tradition,” reflecting common tropes in Jewish architects’ writings. They emphasized the lack of fully established professional frames of reference, a canon, or disciplinary protocols. Noting their absence, the publication addressed the need for such common values and criteria.

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39 This essay was included in chapter 2 of the 20 Years of Building publication, consisting of thematic contributions on questions regarding co-op design and planning. Other essays in this chapter addressed technical matters (such as building foundations, ceilings), programmatic issues (dining halls, apartment buildings, rural production facilities), essays on planning of settlements, legislative and economic (data-based) analysis, as well as short polemics on questions of aesthetics and the social role of architecture.


41 It was on the basis of similar disciplinary assumptions, regarding a lack of tradition of reference, that Alona Nitzan Shifman developed her analysis of the works of the Tel Aviv circle of architects in the 1930s. She interpreted their practice as representing what the sociologist Amnon Raz-Krakotzkin has called the “triple negation” of labor Zionism; that is, the negation of the bourgeoisie, of the Orient and of the Diaspora. Nitzan-Shifman, (2004).

42 This issue was in tension with two other motivations that were central to the exhibition and publication: the establishment of a database on building activities, and of a professional archive (see Polsky’s “Preface” in Twenty Years of Building...). In this respect, the discussion of design values, representation and character made the publication distinct from other instances in which modernist architects joined forces to develop a quantitative discourse on building activities. See Eric Mumford’s discussion of CIAM 2 meeting in Frankfurt. The CIAM Discourse on Urbanism, 1928-1960. (Cambridge: MIT Press, 2000). 39-40. For the catalogue concomitant project of archive development, see Zvi Elhyani Multi-Contextual Approaches to Architectural Archiving: Knowledge Restoration for the Historiography of Israeli Architecture. (Technion: Ph.D. Dissertation, 2014). 18-23.
The second and third statements (cited from “Tour in the Exhibition”) further clarified the meaning of what Sharon intended in his reference to ‘cultural and social life’ (Figures 2.2, 2.3). The second statement makes a typical claim on functional design: that architecture was urban in nature—while acknowledging the ambiguities that might result from identifying it with a rural, urban, or semi-rural/semi urban area (i.e., in light of commissions that require functional design to adjust to various design tasks and sites).

The statement describes architecture as the city’s formal mode of address (what the authors termed representativi), through which a building appears or is posited relative to a public. In outlining a division between building and architecture, the statement follows the path of the critical opposition between architecture and building that was central to interwar modernism. It cautioned against the reciprocal effects of architecture in the establishment of the environment (sviva) and psyche (ofi amok) and stated the formalities of building (its economy of means and simplicity) as a desired alternative.

The third statement discussing the Jewish Agency design rationale further represented the broader cultural and social life, relative to which the publication

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43 Most likely, they were formulated by the team of architects and engineers, including A. Allweil, J. Dicker, Shmuel Mestechkin (1908-2004), E. Polsky, A. Freudental, and Benjamin Tchlenov (1908-1991) whose names were indicated on the cover as responsible for organizing the exhibition materials. Except for Mestechkin and Freudental were the only architects in this group. On Mestechkin’s work see chapter 5. Further research is required on these figures. According to architectural historian Zvi Elhyani, some twenty architects and engineers participated in the collection of materials and preparations for the exhibition. Elhyani (2014). 16.

44 See Harry Francis Mallgrave (1993) and Modern Architectural Theory: A Historical Survey, 1673–1968. (Cambridge: Cambridge University Press, 2009). 235-252. Also, This dialectic was shared by a wide range of architects and critics working in the 1920s and 30s. See for example: Adolf Behne’s The Functional Building; Mies van der Rohe’s “The Office Building” and Hugo Harring’s “Path to Form,” in Harry Francis Mallgrave and Christina Contandriopoulos, eds., Architecture Theory. Vol II, an Anthology from 1871-2005 (Maiden: Blackwell, 2008); Hannes Meyer’s “Building” in Ulrich Conrads ed., Programs and Manifestos (Cambridge: Cambridge University Press, 1971), to cite but a few. The reconstruction of the various threads through which these ideas made their way into the 20 Years of Building publication requires further research. The architects Yochanan Ratneer, Richard Kaufman, Arieh Sharon and Shmuel Mestechkin, Yacov Rechter and Dov Karmi, who collaborated in this publication were most-likely all central. However, the collaborative nature of the publication and the lack of an identified author in several of its sections (primarily in “Visit to the Exhibition”) make such identification tenable.
formulated co-op rural and civic building. Transience in this case did not refer to a missing architectural tradition (as in Sharon’s statement). Instead, it characterized the nature of Jewish settlement, its lack of stable economy and foothold in the ground (“It is not true that we have become rich…”). These aspects were commonly associated, in the 1920s, with the foundational moment of the Jewish Labor Force (Gdud Ha’avodai), a collective of workers responsible for infrastructure preparations for settlement that was established in summer of 1920, shortly preceding the foundation of the General Federation and the National Kibbutzim movement. The latter was, from its inception, more sedentary in nature.45

The authors in this statement, and elsewhere throughout the publication, referred to the tent and the shack as signs of the economic instability of the 1920s. These temporary structures served as emblems of initial territorial development in the rural settlement (Figure 2.5). By evoking them the writer stressed the relevance of the “principles of the beginning of collective settlement on the ground.”46 He addressed the cowshed from a similar vantage; cowshed improvements and food on the settlers’ plates, therefore, took priority over the installation, extension, and decoration of the house.

By the time 20 Years of Building was published, the tent and the shack, irreducible images of basic subsistence, were specifically associated with the strict

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45 One of the major forces behind the idea of collective Jewish workers’ communes in Palestine, the Labor Force leaders, upon the communes’ evolution into new forms of cooperative organization—the Federation and the kibbutz movement—have recurrently discussed the dangers of permanent settlement. On the relations between these two institutions at the moment of the establishment of the General Federation, and on the collaborations and ideological tensions between these two organs, see Anita Shapira, (1988), ibid. See also Elkana, (1980), ibid. And Henry Near, Chapter 2. The Kibbutz Movement: A History, Volume 1: Origins and Growth, 1909-1939. (Oxford: Oxford University Press, 1992).

46 20 Years of Building, 7. These principles included the strict adherence to a reduced budget, the lack of personal privacy, ornamentation and additions beyond a bare necessity (the balcony or other housing improvements).
economy-based reasoning of Jewish Agency development. Formed in 1928, the Agency collaborated with the Federation and its sub-cooperatives, planning and providing subsidies for settlements. Referencing these structures in 20 Years of Building expressed yet another manner by which functional building acquired meaning, distinct from those espoused in the first two statements. In these first two statements, a building’s simplicity and modesty were touted as features that were intrinsic to the discipline of design. Rural building and the rural domain were more broadly defined in these statements as a primary reference for co-op architecture and its mediation between economy and representation.

Distinctly, the third statement attributes the dryness of Jewish Agency architecture to the institution’s adherence to biological calculations of the budget principle. Resonating with the constricted possibilities of life in the agricultural kibbutz, such “dryness” defined another measure of simplicity. This measure preceded and was seemingly independent from an architectural representation. The three statements articulate two economic rationales of design for co-op institutions. One, primarily emerging in the urban realm, envisioned the co-operative economy in terms of the provision of elaborate design means made possible by civic institutions. The other envisioned co-operative management in terms of the provision of minimum resources to a maximum of workers.

48 Similarly to English adjective “dry”, Yavesh qualifies things as arid, lacking moisture and un-frivolous unembellished.
20 Years of Building represented these types of simplicity as mutually constitutive. While it defined urban (architecture) simplicity in disciplinary terms, rural simplicity preceded design intentions. Throughout, the publication portrayed these types of simplicity as reciprocally inter-dependent, and staged this as an effect of acculturation between modernist design culture and land development or co-op institutions.\(^{49}\) Such acculturation was foundational to several conceptual axes that underscored the publication’s values: building—architecture, rural—civic, ordinary (or technical and economic)—monumental (or representative and institutional). By extension these spectra defined the ways the publication’s authors reflected on “technical” and “economic” (techni and mishki) design tasks (e.g. rural and industrial production, storage facilities, workers encampments and settlement plans) and “representative” and “institutional” (representati and mossadi) ones (e.g. public institutions of various kinds). Before further elucidating the logic of these interrelated values of simplicity, it will be helpful to note the context and content of this publication, which grounded these values.

\(^{49}\) Such argument follows the notion of literature scholar Mary Pratt’s “contact zone,” through which she referred to the shaping of cultural phenomena though encounters and translation needed between exogenous cultural contexts: “I use this term to refer to social spaces where cultures meet, clash, and grapple with each other, often in contexts of highly asymmetrical relations of power, such as colonialism, slavery, or their aftermaths as they are lived” in Mary Louise Pratt, “Arts of the Contact Zone” Profession (1991): 33-40 The construction of such a perspective over the language of modernist architects, specifically establishing themselves in Palestine in view of a common national future, is of importance as it allows for questioning the assumption regarding the power that Jewish architects working for land development institutions might have wielded, and the ways historiography has construed their culture as well-established with its imported disciplinary certainties. In distinction, thinking through the construction of such language as an issue of an ongoing negotiation opts to recover the non-homogeneous dimension of their language. To follow Pratt, such reflection questions the ways in which: “Languages were seen as living in ‘speech communities,’ and these tended to be theorized as discrete, self-defined coherent entities, held together by a homogeneous competence or grammar shared identically and equally among all members” (37). Pratt understands such linguistic assumption to be duplicating utopian nationalist expectations regarding the representation of national “imagined communities.” In the context of Israeli historiography a similar assumption allowed to construe a flawless translation between typical ideas of the New Building and the community of the circle of Jewish modernist architects in Nitzan-Shiftan (2004).
2.1.1. Exhibiting and Writing Co-op Economies

20 Years of Building followed on other major publications proclaiming the credo of Neues Bauen or, in its Hebrew designation Bynian Ha’dash (New Building). The first was a journal called Ha’bynian Ba’mizrach (Building in the Orient) in its first years of publication (1934-1937) and then The Building until it folded in 1939. The second was the 1935 Book of Production and Commerce, edited by the city engineer of Tel Aviv Jacob Ben Sira Shifman in the 1930s. Building in the Orient was an initiative of the Jewish Circle of Architects in Palestine that was based in Tel Aviv (Chug Ha’adrichalim). Members of this self-organized group of architects were variously aligned with Labor Zionist politics. Through the publication, the Tel Aviv circle sought to promote a local discourse on building understood as a means of progressively intervening in Palestine and the Orient, and claim architectural modernist expertise. In this regard, the journal was a first staging of a professional institutional alliance with co-op and land development agencies that was initiated from bottom to top.

Unlike The Building in the Orient, 20 Years of Building presented activities in the fields of territorial development, construction, design, and planning. This comprehensive purview corresponded with the logic of the exhibition from which the 20

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50 This group of architects included: Zeev Rechter, Raz Barkai, Dov Karmi, Arieh Sharon among others. Shiftan (2004).
51 Early on the journal sought on the one hand, to offer a general reflection on the conditions of a modern Jewish practice in Palestine, addressing the distinct locales of a Zionist project of colonization, including both rural and urban centers. Paralleling the Tel Aviv circle’s involvement in municipal construction- and planning- related legislation, the journal served as a framework for staging the professionalization of architects (and to a lesser degree of engineers). It did so primarily by re-articulating an architectural discourse in Hebrew that would be aligned with versions of interwar modernism, and by showcasing competitions over public building commission (initiated by the circle and organized by the Federation).
52 Along with the 1935 Book of the Year (published by the Company for the Production and Commerce) this was the first publication to include such a complete survey of design tasks and questions. In so doing, it exemplified the comprehensive nature of construction- and design-related tasks undertaken by the Jewish Federation of Workers and its interrelated co-op institutions.
Years of Building publication originated. The exhibition was organized in July 1940 by the Federation of Jewish Laborers in Palestine and its sub-union, the Engineers’, Architects’, and Surveyors’ Union, for the 20-year anniversary of the Federation’s foundation.\textsuperscript{53} Founded in 1920 as a body representing Jewish laborers in Palestine, the Federation was responsible for organizing Jewish urban and rural workers. It assembled construction and public works cooperatives (the most important of which was Solel Boneh and the Workers Company), health-care, and educational cooperatives. Its foundation by members of the Jewish Work Force (Gdud Ha’avoda) was viewed as anticipatory of the establishment of national sovereignty.\textsuperscript{54}

The publication was composed of images of buildings, architectural plans and sections (using a unified graphic code) and accompanied by short essays and commentary on the designs. As such, it differed from other official brochures by the Federation, which included visual documentation of social, building and infrastructure related activities (figures 2.6). 20 Years of Building presented an effort to correlate and emphasize such responsibility through the visual, spatial and written strategies of modernist design.\textsuperscript{55}

\textsuperscript{53} The exhibition was first inaugurated in the Tel Aviv House of the Architects and the Engineers, then moved to the Federation’s Jerusalem headquarters and ended up at the Technion polytechnic in Haifa. In Davar (the daily newspaper affiliated with the Federation), 29.11.1940, 1; Davar, 16.12.1940, 4; and Davar, 26.12.1940, 3. Considered the birthplace of the Jewish engineer and the Federation more particularly, the Technion was an ideal site for the closure of the exhibition. According to Davar’s reporters, the exhibition drew an important Jewish audience including the pre-state governing elites.

\textsuperscript{54} The arguments on the roles the Federation and specifically its public works firm Solel Boneh played in the formation of an Israeli national sovereignty were central to the development of Mapai, the Party of Israeli Workers, which formed from the Federation after independence. These claims were at the heart of the Federation’s internal debates relative to its transformation in view of the shift towards state control after 1948. Dan Hilel. Be-derekh lo Selulah : Hagadat Solel Boneh. [in Hebrew] (Tel-Aviv: Shoen, 1963). 337-8 and Haim Gevti, 100 Years of Settlement. Vol 1 [in Hebrew]. (Tel Aviv: Ha-kibbutz Ha-meyuchad, 1981). 188-201.

\textsuperscript{55} In this sense the stylistic turn to New Building as it was manifested and negotiated through the publication is analogous to what architectural historian Sibel Bozgodan marked as the move from the Ottoman revivalism of the first three decades of the twentieth century towards New Architecture agendas, a shift that gave a cultural expression in the field architecture to the establishment of the single party regime of the Republican People’s
Moving between the Federation’s and the architects and engineers’ centers in Tel Aviv, Jerusalem, and Haifa, the exhibition displayed the power that the Federation and its interrelated institutions had gained through territorial development and construction during the two preceding decades.\textsuperscript{56}

The semiotic relationship between design tasks and geographies that the publication defined were intrinsic to the nature of the institutions involved. In the opening essay, Federation Director David Remez (1886-1951) reflected on the foundation of architectural disciplinary knowledge from the viewpoint of land development bureaucrats:

and so [the plough] will rise and glitter as does the field in the agricultural farmsteads, apartment houses, production houses and public buildings, built by the hands of the settlements members themselves. Here - a cowshed, here - a house, here - a school…. The craft of construction, on its complexity and simplicity, stood in front of us already in 1918 as a miraculous kingdom, veiled by mist of secret, as diverse agricultural stood in front of us in 1908, with the first settlers to Kineret… — David Remez. “And We Learned to Build.” [original English translation of the Hebrew title Amat Ha’bynian, literally the gauge or the scale of building. m.h.] (4)

This statement puts design tasks and geographies in the context of rhetorical and literal issues. On the one hand, the juxtaposition building with agriculture relied on a well-trodden Labor Zionist visual and linguistic trope that compared agricultural to construction labor (the craft of construction and diverse agriculture in this context). In a literal sense, as Remez notes, this was a matter of land development institutions’ multivalent and multi-sited endeavors that included workers’ experience with the

\textsuperscript{56} This power was related to the function of these exhibition sites as administrative, cultural centers of the Federation. For the visibility and growing investment of these institutions in Tel Aviv and Haifa between 1920-1940, see Anat Helman, \textit{Or Ve-yam Hikifuha: Tarbut Tel Avivit Bi-tekufat Ha-Mandaṭ}. [in Hebrew] (Haifa: Haifa University Publishers, 2007).
development of the fields, rural production facilities, and urban development (“a cowshed, here - a house, here - a school”).

Finally, Remez’s comments included a chronological argument. The unveiling of the secrets of construction and building followed from diverse farming. Beginning in 1908, the Jewish National Fund in-house agronomist Yitzhak Elazari Volcani argued for the centrality of dairy production as the continuous source for single-family farmstead production in Jewish co-op workers’ villages. 57 This precedence specifically revolved around the building of the cowshed and the field of construction as it extends to the urban realm. The following section examines several other instances in the publication that claimed similar dependencies between rural building and urban architecture.

2.1.2. Articulating Ordinary and Monumental Co-op Buildings

As the three epigraphs that open this section suggest, co-op functional buildings were defined by a series of terms. Three pairs of opposites framed these terms: building vs. architecture, rural vs. urban, and ordinary vs. monumental. 58 The writers further qualified them using adjectives such as simple, economic, practical, regular, modest, dry, and clear. 59 The publication’s conjoined discussions of these programs suggested that its authors envisioned more than a cumulative purview on the realm of building

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57 See discussion in chapters 3 and 4.
58 In the Hebrew transliteration: bynian, architectura (first couple), kafri, ironi (second), and ragil or pashut and monumental (third) respectively.
59 These requirements parsed the publication, but can be read in a formulaic manner in the sections discussing the exhibition: “The cubic plan, the simple is particularly beautiful for such a small house, that receives with its tile roof the finished architectural form that is also fitting to the rural landscape in the country” 20 Years of Building. 10, 11.
production. They tentatively delineated, through these discussions, a system of architectural denotation.

Typical assumptions of New Building ideals of functionalism were at the center of several of the publication’s stipulations of simplicity and economy. These stipulations included the reduction of space to minimal requirements related to use; avoidance of formal, spatial articulation resulting in cubic plan and mass configuration; and economy in the use of materials, specifically in view of effects related to material rendition or décor. These stipulations also emphasized the social gain of functional design (i.e., minimum provisions to a maximum of workers collectives). Lastly, as evinced in the second epigraph, these requirements evoked holistic expectations. They addressed the effects that reduced space, basic configuration, and ordinary material rendering have on the constitution of a non-ostentatious and simple building character and environment (Figure 2.7):

It is interesting that without distancing too much from the general type, these houses have a much poorer impression than the “minimal” houses. It comes to mind that, specifically in the small building of two rooms, in relation to which it is clear that there is no room for an architectural composition, in the wide sense of this term, specifically in these small and cheap works, good proportions in the division of areas, in carpentry, windows are necessary; ones [proportions, m.h.] that can create nice harmony that is fitting to the landscape in such a miniature object [be’obyect zair ze]. In such conditions of extremely high reduction [tzimzum merube beyoter], a maximal effort of good and experienced architectural forces is required to create something ex-nihilo (yeash me’ayin). [Italics Added. 11]62

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60 That such was also the case can be inferred from the objective defined by the Engineers, Architects and Surveyors Association as stated by the engineer Dicker’s introductory discussion of the exhibition and publication as an effort to gain a comprehensive view on the Federation and its inter-related institutional network production.

61 A further analysis of this publication would benefit from a clarification of the roles that specific actors played in its production. Unfortunately, while the publication also announced the establishment of an archive, it was lost in the mid-1990s making such reconstruction difficult. See Elhyani, ibid.

62 See also: “The Public Building in the Kibbutzim.” The authors note: “A modest and clear plan; The building corresponding to the topography and landscape of the environment, full with grace of simplicity, with no will to express grandeur” (52, 4913). A similar comment is made on the Worker’s House in the Settlement of Pardeis Hana: “The Worker’s House in Pardeis Hana - this plan is clear and modest. The use of the rooms for different
These requirements posited the rural character and environment as a source and
gauge for co-op representation. This allowed the authors to judge and define a spectrum
of design tasks and their typical sites that also, ultimately, included the urban realm.\textsuperscript{63}
The various descriptions and interrogations that the authors made regarding the precise
nature of several programs and sites make this assertion.\textsuperscript{64}

The statements regarding building in the city were described in similar terms.
While these programs were allowed a certain degree of expenditure and sumptuousness,
they were at the same time described in terms comparable to the simple rural house.
Discussing what was in the mid-1930s one of the biggest co-op health clinics designed by
Yochanan Ratner and Emmanuel Yalan, the authors note: “Its western, main façade, is

functions (hall - stage) is in correspondence to the limited possibilities in the settlements. The character of the
building [that is covered with tiles roof. M.h.] is modest and rural without an effort to express grandeur” (51). These comments are close to Loos’s warning against architectural design and reference to vernacular knowledge or engineered objects. See Adolf Loos. “Architecture” and “Rules for Building in the Mountains.” in \textit{On Architecture}. (Riverside: Ariadne Press, 2002). They also denote albeit the different political context proximity
with what Michelangelo Sabatino identified as major rural-oriented strands in Italian rationalism. See Sabatino’s
analysis of Giuseppe Pagano’s position in favor of rural architecture in the 1930s, in \textit{In the Pride for Modesty}
(Toronto: Toronto University Press, 2010), 148.

\textsuperscript{63} For instance, see the description of Yohanan Ratner’s design of Our House (Beytenu, serving as Federation urban workers center): “The amphitheater in Haifa is one of the healthy chapters in the beginning of construction
in the country. The effort in the architectural exteriority is a bit naive, however in simple realization it is healthy
and organic, an effort to render a section of the mountain slope to a place of gathering of thousands by full use of
the topographic conditions. There is today in this open architecture a pioneer and constructive moment, and it is
good that the years of prosperity did not destroy this large space; it is good that it was not blocked by walls or
covered with a roof.” In “Public Buildings”, 20 Years of Building. ibid.

\textsuperscript{64} The section on the exhibition depicted the Jewish Agency and the National Kibbutzim Association’s settlement
housing as conjuring a simple and clear rural character in the case of the settlers’ house or clinic, for example.
The publication also described housing and institutions in the Unionized Kibbutzim Association in terms of a
semi-rural, semi-urban nature, indicating a problem in such a lack of a clear character. The text claims, “One
difference [between the Jewish Agency and the United Kibbutz approach] is disastrous, according to us, if the
Technical Office of the Jewish Agency builds houses of two floors we assume that it does so for
economical concerns primarily. He does not do this, we presuppose, for concerns of technical or architectural perspective
[Ha’shkafat Olam architectonic, literally, architectural world-view or ideology in Hebrew, often translated in
Hebrew with the Greek ethos. m.h.]….The danger in the course of thinking and in the act of construction [of the
Technical Department of the Unionized Kibbutzim. m.h.], is that the rural settlements of the Unionized Kibbutz
and those built under its influence will be settlements without village or city and that they will be lacking any
‘architectural character’” (9). Hence hybridity in this context designated a deficient or non-legible character. This
note on ambiguity of character and expression corresponded to the ways the Unionized Kibbutzim also defined
its kibbutz agenda as an industrialized and urbanized alternative to the small scale collectives (kvutza, small
group) of the National Kibbutzim Association’s settlements. On these two kibbutzim association see, Near.

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exemplary in its simplicity and seriousness. The major entrance is representative and fits a big public institution.” (Figure 2.8)\(^65\) Such statements, predicated on the notion of the rural building, described a common, simple character—a standard—uniting the rural and the urban. Yet they also communicated expectations for a differentiated system of representation. The publication suggested this system was expected to both clearly and fittingly represent meaningful and harmonic semantics that consisted of a variety of geographies and tasks.\(^66\) These expectations demarcated a design-based assumption on simple economy. Other statements conjured an analogous rationale that was predicated on the administrative vantage of land development institutions.

Such arguments varied in type, and referred to distinct tasks and developing institutions. The Jewish Agency budget-based rationale was also noted in the discussion of the institution’s plans for temporary workers’ camps. The authors noted that the principles of this program resulted in a “simple standard” (Figure 2.9): “The standard of the houses in the workers camps is *simple* [italics original. m.h.]. The intention of the founders of the camps is to provide a maximum number of beds for the settlement of the members of the kibbutzim and sufficient sanitary conditions.”\(^67\)

\(^65\) Ibid, 40. In addition to the noun “seriousness” the authors used the adjective “strong” to distinguish the urban buildings from the rural ones. A similar emphasis is found in the journal reception of the inauguration of the Agricultural Center cooperative Tel Aviv center, designed by Arieh Sharon and inaugurated 1935 (in chapter appendix).

\(^66\) The notion of clarity stood in the publication on the one hand for a professional issue, the simple and legible arrangement of the plan, program and volumetric configuration. See notes on the public building plans in the kibbutzim, (*20 Years of Building*, 52). Clarity also denoted issues of representation, i.e. the legibility of the character at stake (rural, urban, serious, trustworthy, etc.). This meaning of clarity was central to several of the publications sections: to the comments on the exhibition (for instance the sub-section on public institutions in the kibbutz (51-52), to Joseph Idelman’s notes on design for the Unionized Kibbutzim Association, and to Arieh Sharon’s comments on public buildings, (117).

\(^67\) 71. The standards included a good house orientation relative to ventilation and topography, appropriate distances between the houses, and a base level of sanitary amenities. The statement about them differed from instances in which this simple and dry effect was depicted as something to overcome: “‘Kaskartin’ style by ‘an organic organization of areas of greenery (shitchei yarak)’ and avoidance of the kaskartin style that allows for a
simple standard did not claim simplicity as a cultural value. Similar to the statement on
the institution’s anti-design based concern with shelter and food provisions, it
acknowledged the Jewish Agency’s quantitative approach to building.

The essay on kibbutz cultural centers in 20 Years of Building by the architect
Shmuel Bickels, the head architect for the Unionized Kibbutzim Association, referred to
an analogous economic rationale characterizing the wooden shacks that often served as
an all-purpose cultural activity center for a co-op. He emphasized the incongruity of
developing a cultural symbolic center in a shack.68

The objective conditions in which the group [kvutza, a small settlers’ commune.
m.h.] is found in the moment of its creation, the need for focusing all the means in
the direction of the daily and urgent problems of work and life—all these did not
allow the immediate development of this set of building assumptions called “the
cultural center” destined to contain all the events of the kibbutz cultural life. After
the day’s labor, the members were directing their steps towards the modest shack
with the elegant name “the cultural shack.” A primitive wooden building serving
as library, reading, music, and games room and for a paintings exhibition. The
shack is close onto itself, lacking “elasticity” in the walls; that is, there is no
option to open the walls or change their conditions to redefine the areas for use.…
All the different functions intersect in this reduced interior. Density and noise,
heat and lack of shadow, sand and stones around the building — this is the
beginning. On the one hand, the un-quiet atmosphere does not provide an
opportunity for full spiritual satisfaction, on the other hand an un-perfect exterior
shape is raised to the level of a symbol or ideal. (117)

Bickels’s went on to describe the development of the cultural house in the kibbutz in the
course of the main two kibbutz associations, the Unionized Kibbutz and the National

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68 Bickels was the head architect in the Unionized Kibbutzim Association (1951-1975), and one of the founders
of the institution’s Technical Department (that is, the section responsible for planning and design missions). On
Bickels’s work see Freddy Kahana, “The Work in the Technical Departments.” Nor Village, Nor City – on the
Architecture of the Kibbutz. [in Hebrew] (Ramat-Efal: Yad Ṭabkenin, 2011). Bickels’s essay does not contain
visual images. In the personal memoirs of architect Aviah Hashimshoni (discussed in the second section of this
chapter), the same description of the cultural shack is noted in his years in the kibbutz of Ein Harod starting in
1932. (In Ofrat Harel, private collection).
Kibbutzim Association. He then accounted for issues of scale (and rescaling) and the need for separating and connecting what were incongruent or complementary functions once crammed into the shack. Lastly, using the notions of a “musical dominant” and psychological association, he addressed the ways in which this building or several of its programmatic features may develop into a new iconic presence, forming the visual center of the kibbutz and analogous, according to Bickles, to the religious center in European villages.

Bickels described this new symbol as overcoming the growing incongruity between the bare minimum conditions of an original primary shelter and collective representation. In line with his classicist leanings, informed by the architecture of Auguste Perret, his description, indifferent to the specific institutional setting at hand, did not assert a future maintenance of the historical beginnings in the shack, but elicited it by way of invocation. He avoided translating the historical beginning, through terms such as “modest” and “simple,” into a cultural value of radical economy. In so doing, Bickels’s

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69 Such a perspective, implying a trans-institutional approach (i.e. one that addresses the two major kibbutz movements) resulted most likely from the fact that Bickels dealt with the planning of what were the first Big Kibbutzim (Ha’kibbutz Ha’dagol) that gave place in 1942 to first regional clustering of kibbutzim pertaining to these two movements’. See in Kahana. Ibid.

70 Bickels’s use of the notion of the dominant, which is left only partially explained, most likely referred to the tension instigated by a dominant chord in a harmonic sequence. He also used it more systematically in his essay on kibbutz planning, The Planning of a Kibbutz Settlement, [in Hebrew]. In Yad Tabenkin Archive, Folder: “Architects in the Technical Department of the Unionized Kibbutzim”. 15-2-46/5/2. A later version of this essay was translated into English for the International Seminar on Physical Rural Planning (Hertzelia: the Afro Asian Office, 1961).

71 Referring to “the ways a primitive building fulfills many roles to which it is completely non-fitting”, he understood that the future stages of the shack’s development would resolve its initial problem, (118). In this respect, admitting to the shack’s inability to be a multi-use building was also a way of redeeming its function, by distancing it from a primitive, potentially nativist gloss.
overt statement did not claim the identical reproduction of the symbol. Nor did he fetishize the primary shack, but subtly invoked its qualities.\footnote{Bickels’s extensive work on the design of kibbutzim cultural houses is a fertile ground for a future inquiry on the tensions between the primary settlement shack and its future translations. Of particular interest is the cultural house of Beit Hashita (circa 1950s). Its concrete columns and concrete block infill at the lateral facades, maintained a strong resemblance to primary shacks that were used by the Jewish Agency both in housing and rural production facilities, while its front turned towards a more classical rendering of the kibbutz center.}

The concluding essay of \textit{20 Years of Building}, “On Our Architecture from a Social Standpoint,” by the engineer A. Reiner was another example that reflected on the tension between standardization and differentiation in architectural representation. In opposition to Bickles, Reiner called for the ongoing commemoration of such symbols predicated on primary economy.\footnote{The essay does not contain visual images.} Acknowledging the Federation’s accomplishments in the fields of building, the author opened with a call to order. Voicing agreement with Arieh Sharon’s discussion of the collective expression in public buildings, Reiner emphasized architecture’s role as a social art. This role involved, once more, fittingly correlating the character of design tasks with the classes for which and the époque in which they are developed. Representation of this kind would be the basis for a style. The central part of the essay dealt with three types of buildings: public monuments (Sharon’s public buildings or institutions), buildings for the purpose of income (including commercial and housing programs) and private houses. In all three types, Reiner decried what he viewed as a local tendency for waste, or a search for attention or publicity.\footnote{A similar critique of contemporary tendencies towards publicity, and by extension, a commercial character is also found in Arieh Sharon’s essay on co-op public buildings, under the German notion of \textit{Reklame}. On the issue of Reklame architecture in the German Weimar context see Kathleen James. \textit{Erich Mendelsohn and the Architecture of German Modernism}. (University of California, Berkeley, 1997). Chapter 5.} He recognized few public institutions worthy of praise. He lamented that these institutions on Alenby Street, the main commercial artery of Tel Aviv in the 1920s, which was also the
center for co-op administrative headquarters, had turned to excessive decor. Questioning what was the norm in the field of commercial or private architecture, the comment implied that public buildings should have a clear character and representation.75

Reiner referenced the Jewish philosopher Martin Buber’s notion of the spirit of the colonization revolution, of making-do and not seeking profit, as an antidote to what he saw as wasteful construction.76 Accordingly, his conclusion joined the argument for architecture of simplicity, which he saw as a model for public buildings and specifically new university campuses in Jerusalem and Haifa.77 Re-invoking in the conclusion, the ways Alenby Street, discussed earlier in the essay in the context of public buildings, gradually developed, Reiner’s concluding statement implicitly reflected on the co-op and commercial architectures of Tel Aviv:

I suggest [Hebrew University of Jerusalem] and the Technion do a study-tour of South Hampton. The university in this city is bigger than [Hebrew University]; however it is formed entirely of wooden shacks. In the period of the last war [most likely, World War I a military camp parked in these shacks, and after the war, they have used these shacks to create a new university. Since then, they have gradually set up several brick buildings. But the money that they had, they have spent for the most part on the arrangement of labs, [and other classroom facilities]. Many of us probably remember that in Alenby Street in Tel Aviv, there was a tents camp for settlers. Since then, we have obtained much, however also lost a lot. The view of the tents is more beautiful for every new settler than the view of the coffee shops substituting them. Herein lies a faithful

75 Reiner also recognized limits for waste and ostentation in several examples from commercial and private architecture. The essay points to local architects’ compliance with these cultural tendencies, and to architecture’s educatory and economic role in directing public taste and responding to productivity calculations that should, according to Reiner, be pursued by the Jewish Agency for Israel (127).

76 With the call for such a revolution Buber concluded his reflections on political Zionism and the pitfalls of its accomplishment of a national system of governance in the last chapter of his Paths in Utopia. (Ann Arbor, University of Michigan, 1949).

77 These statements were close in tone to the design rationale Alison and Peter Smithson and Reyner Banham would identify with a Brutalist expression of the facts of life. Distinct from this reference to a pre-disciplinary resource of design that was critical in nature toward a broader architectural establishment, 20 Years of Building referred to an institutional ethos shaping the Zionist establishment (similar differences are also noted in the specific design strategies that both invocations of economy were making). On the Smithsons’ and Banham’s ideas see: Reyner Banham, The New Brutalism: Ethic or Aesthetic (New York: Reinhold, 1966). 45-47. See also Alison and Peter Smithson, “As Found,” “The New Brutalism,” in As Found the Discovery of the Ordinary. Claude Lichtenstein. Ed. (Baden: Lars Müller 2001). 40-45, 128-135. See also discussion of these ideas in David Leatherbarrow and Moshen Mostafavi. (Cambridge: MIT Press, 2002). 169-177.
expression of the spirit of pioneering, and the heart grieves very much in thinking of what we have done with the money invested in the houses standing there today. I suggest to our architects to further delve into the architecture of tents and shacks.78

This passage in the essay that concluded 20 Years of Building implicitly resonated with the statements arguing that radical economy precedes design intentions and intervention, like the passage that opened the collection discussing the Jewish Agency’s productivity-related calculations and Bickels’s reflections on the Kibbutz’s cultural center.79 Thus the gap between the acquired wealth 20 years on and the arduous, poor beginnings of the Federation and its inter-related institutions became an undercurrent throughout the volume. The first essay invoked the cowshed precedence as founding “dry architecture.” Bickels’s discussion of the shack acknowledged its historical role in setting up civic symbols. The concluding essay claimed these symbols had come to play a constitutive role in the country. Through the use of analogy between the shacks and the public buildings, it asserted the temporary settlement structure as a continuous gauge for co-op building.

Through these various statements, the publication claimed Jewish co-op building had the potential to devise a civic representation relative to a pre-disciplinary economic origin.80 Nevertheless, the effect of establishing an architectural reasoning that pertains to

78 “On Our Architecture from a Social Standpoint,”. 20 Years of Building. 127.
79 While the temporary structure Reiner referred to was set in the urban context of Tel Aviv, its discussion in the broader context of the publication framed it in similar terms to the other rural emblems of a bare economic minimum, the cowshed and the rural shack.
80 Such a relation and influence between the two rationales was noted in various ways throughout the publication, sometimes claiming an effective translation from one rationale to another, at other times stressing the conflict or contradiction between the two, as read through these two notes respectively: “For the school in Vitkin village and in all the plans that are devised by the office of the Technical Department of the Agency [the Jewish Agency, m.h.], the program that the agency has addressed is felt: not to go beyond a certain budget and at the same time to create a nice and good house [brit nae vato]. We provide this building plan as an example: how can one with minimal means and a plan that is simple among the simplest, ascribe grace to a small school [leshavot chen] so that it will be a building [bëtëyot] designated for children standing nicely in a rural landscape [veomed yafe betoch nof kafri]. This nice impression is given to a large extent by the construction of a useful corridor balcony
simplicity and modesty through relations with an exclusive (i.e. non architectural) economic rationale also had an opposite effect. Dialectically, such relations also defined the crude economic reasoning of co-op and land development as a disciplinary matter, as a cultural foundation. This dialectic had implications in terms of the meanings of co-op functional buildings. It also implied the profession of design, and design knowledge by extension, is grounded in and representative of a co-op institutional setting.

The dialectic 20 Years of Building had advanced permitted Jewish architects who were committed to interwar design discourses to promote modernist building as a measure allowing them to preserve, displace, or commemorate co-op imperatives of economy, urgency, and resource scarcity. They translated these imperatives into civic simplicity and modesty. This translation was also the occasion of staging the co-op-affected environments and economies. The authors described them as the ideal setting for the realization of a culture of modern building that was predicated upon an ethos of labor and extreme poverty.

The dialectic between two inter-related economic rationales shaped the semiotic field of co-op building in the period preceding independence. This roughly positioned the Jewish modernist architect as an agent capable of devising a meaningful shape and environment in the face of pressing rationales of land development. These rationales appear throughout the publication, communicating in part a preference for an engineer’s

[veranda, m.h.], that is built in a traditional manner in the country, and that we find often at our neighbor’s, a low tales roof that is lower than the building volume, supported by wooden stilts, with wooden capitals, very simple and very pictorial...” 32. And alternatively: “The people-houses in the village are characterized too by the same contradiction shared by all the people-houses buildings in our country; i.e. the contradiction between the big program and the big aspiration on behalf of the building’s owner and between the restraint needed to be placed on capacities to realize [this aspiration].” [from the section on Public Building] 52.
technically-oriented approach, creating a not-quite-explicit professional dialogue that resonated with the heterogeneous institutional frameworks the Federation had created.

Several essays and comments in *20 Years of Building* argued the National Kibbutzim Association’s designs for the kibbutzim, the Federation of Jewish Laborers, and several of the Federation’s sub-co-operatives resulted in a clear (or legible) rhetoric of rural or civic simplicity. In contrast, the description of the Unionized Kibbutzim design communicated an ambiguous definition of character and environment. At several points the publication compared the Jewish Agency to other, similar institutions, and depicted its approach as most clearly engineering-based. As such, it described the Agency as beyond the remit of a cultural project in comparison with the Federation, and particularly its health care related co-ops, which communicated a project of economy that was predicated on the representation of graceful, civic simplicity. The Jewish Agency conjured the co-op economy through a production-based calculation. It regarded the minimal numbers and measures of buildings for development while allowing maximal provision for settlers.

Philosopher Giorgio Agamben’s work on the system of norms in medieval Franciscan monastic orders may illuminate the relationship *20 Years of Building*

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81 *20 Years of Building*, 32.
82 In this respect the publication is most likely expressive of the design agenda that medical administrator Moshe Soroka defined for the Federation co-op health care institutions, which differed from the more severe and reductively technical approach of David Shiba. The latter, who working alongside Soroka for the Federation health care system, became after independence responsible for the state system of hospitals. For Soroka’s and Shiba’s clash regarding issues of waste over design in Israeli medical institutions, see Idith Zartal. *Days and Deeds, the Life Story of Moshe Soroka* [in Hebrew], (Tel Aviv: Notebooks for Literature, 1975). Chapter 5.
articulates between brute economic facts and a system of cultural (architectural) values. Agamben’s project reconstructs the sense of Franciscan rule that served to regulate monastic life prior to liturgical or dogmatic discourse. He argues the Franciscan “form of life”—the renunciation of property and the assumption of life embedded in monastic action (or use)—was envisioned as a definition of actual life patterns of collectives and individuals. However, rather than assuming that such form of life was pure actuality (or bios), an immanence devoid of conceptual content, Agamben emphasizes that the coding of forms of life in liturgical writing also envisioned an ethical ideal, a model to be followed through life.

Although these historical and cultural contexts are distinct, references to arduous beginnings in *20 Years of Building* may play an analogous role in establishing a system of architectural *rule* informed by the initial and exemplary moment of cooperative life. However, as noted in my emphasis of two types of rationales of simplicity, the authors did not view the pioneer beginnings as a model only. Pointing to instances of pure technical or biological principles that they identified with the operations of the Jewish Agency, the publication communicated an understanding of a cooperative form of life that may have at times preceded or paralleled its translation into model or rule. In a parting word that seems to speak for the contributors to the publication as a group,

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83 Agamben’s *The Highest Poverty* reviews monastic writings from the fourth until the thirteenth century (Stanford: Stanford University Press, 2013). The crux of Agamben’s analysis is a reconstruction of two terms, “rule” and “life” and the ways in which they informed each other, to the point of being intrinsically intertwined (or analytically non-separable, 4-5. For an analysis of Agamben’s discussion for contemporary approaches to minimal design see Pier Vittorio Aureli. *Less is Enough: On Architecture and Asceticism*. (Moscow: Strelka Press, 2013). 21-23.

84 Agamben, 66 and 116-122.

85 Ibid, 104.

86 In this respect the accounts in the publication that referred to the Jewish Agency—in so far as they manifested a reasoning that preceded design, form-giving and the establishment of an ethos—were instances that do not correspond to the ways in which Agamben reads the retrieval of a pre-modern relation to bios (as well as to animals more broadly) in Franciscan thinking. *The Highest Poverty*, 111-112.
Reiner’s conclusion depicts the model of the shacks and the tents as subsuming the Jewish Agency’s biologically governed approach. He calls for an incorporation of bios related calculations into a system of values.\(^8^\)

Finally, this dialectic of co-op economic rationales portrayed various understandings regarding—to use anthropologist Mary Douglas’s terminology—the tendency of classification to naturalize institutions.\(^8^\) These categories and their negotiation throughout the publication allowed the co-op and land development institutions to appear as an organic part of Palestine. In the context of the design-based economic rationale, the negotiation of a right or fitting representation of a rural and urban character and environment along a spectrum of settlements, tasks, and developing institutional agents was itself a reflection on design categories that staged an organic rootedness. The expectations that each author communicated regarding the distinct characters along these spectrums (settlements, tasks, and institutions) also assumed that modernism should invoke a fitting mutuality between designed architecture and its environment.

The naturalization of categories such as rural, urban, modest, simple, economic, and regular resulted from the ways the use of such categories sought describing a variety of characters in opposition to the pressing standardization and reductionist agendas of land development. In so doing, the use of these adjectives sought to overcome a

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\(^8^\) This aspect (framing the biological in terms other than vegetal, to use Agamben’s vocabulary, 106), was in fact already communicated through the first instance in 20 Years of Building that referred to the Jewish Agency’s productivity and life-provision calculations. This early mention already framed these primary and urgent restrictions through the terminology of first beginnings that were, as we interpreted above, imbued with the notion of a poor but nonetheless ideal form of life.

\(^8^\) Douglas’s argument is indebted to Durkheim’s understanding of institutions. It departs from the assumptions that the establishment of shared values regarding a “collective good” use analogous operations to “systems of knowledge”. Douglas, (1987). 45.
systematically artificial nature, to paraphrase the terms in which current scholarship referred to pre-state and post-independence modernism. Lastly, the simple and modest rural building as a primary reference of this system of representation was itself also a gesture towards vernacularism. As discussed above, the image of such a building assumed the removal of civic, urban formalities and a return to a primary, non-mannered design.

The publication portrayed the basic economic rationale of land development in relation to modernism’s naturalization, as well. On the one hand, this rationale stood for a technical approach negating organic character. On the other hand, its various evocations as what excludes, precedes, or should yet direct co-op design, made this rationale and its emblems (the cowshed, the shack, the tent, and the rural house) the reference through which modernism—and by extension its local agents, the modernist architects—could claim a primary relation to the land.

2.2. A Comprehensive Civic Simplicity

A shift between discussions of functionalism and land development practices among architects, planners and artists followed independence. Whereas 20 Years of Building represented the concurrent establishment of a local discourse on functional building and co-op institutional agendas, after independence the institutional planning frameworks of nation-building redefined the project of land development. This shift roughly paralleled several phenomena in post-World War II architecture culture, including a critique of functionalist architecture and urbanism, effectively manifest through changing agendas as a new generation gained influence within CIAM (Congrès
Internationaux d'Architecture Moderne).\textsuperscript{89} It also relied on a new culture of development planning in which the generation of architects who contributed to 20 Years of Building was actively engaged.\textsuperscript{90} The latter discourse undergirded Israeli architectural writings from the early 1950s and into the 1960s, both officially and in the civic public sphere.

In the 1950s, following Israeli independence, the Ministry of Housing and the Jewish Agency Technical Department provided the preponderance of official architectural writings. The public sphere of architectural writings expanded primarily through the \textit{Journal of the Association of Engineers, Architects and Surveyors}.\textsuperscript{91} The issues published during the 1940s were in part devoted to building in the rural area. This work paralleled a retreat in the construction boom in Jewish urban centers between 1933 and 1936 (following the fifth wave of immigration) and a shift in the 1940s to a building project preoccupied to a large extent with the development of new agricultural villages.\textsuperscript{92}

\textsuperscript{89} Mumford (2000). Ibid.
\textsuperscript{91} This section provides an overview of the publication sphere during the 1950s, the examination of these resources as a whole goes beyond the scope of this study. The Ministry of Housing publications included Arieh Sharon’s \textit{Physical Planning in Israeli} (1953) and the series \textit{Israel Builds} published from 1964 and until the late 1970s. The Settlement Agency developed a more interdisciplinary context for architectural writings and research, allowing a place for architects such as Artur Glikson and Emmanuel Yalan. On this last context see discussion in chapter 3. Prior to independence, the journal of \textit{Engineering and Architecture} was published under the title of \textit{The Journal of Engineers and Architects}. The journal was published on a monthly basis from 1940 (the 20-year anniversary of the Federation and the exhibition) to 1947. After independence the editorial changed its name to \textit{Engineering and Architecture (Handasa ve’Adrichalut)}. It consisted of an editorial that was formed from two identified boards, one architectural and one engineering-based. These boards together edited issues in which separate sections were devoted to each professional practice or at times more single-directed professional issues. On Israeli architectural journals between the 1940s and the 1960s see Elhyani,“Kav and the History of Writing on Architecture, a Draft towards Research.” [in Hebrew]. In \textit{Kav Ha-meeorer, Special Issue}, Yona Fischer and Moshe Ninio Eds. (Tel Aviv: Hameorer, 2004). 125-137.
\textsuperscript{92} It can also be noted that while the careers of architects central to the Tashach generation (designating Jewish Israelis born in Palestine rather than immigrants) were initially preoccupied with rural sites and programs, after
Independence changed the place assigned to rural and urban design tasks and to the value of functional economy and simplicity relative to them. Ben Gurion’s program to concentrate on expanding the rural population instead of the urban one (Me’hair el Ha’kfar, 1949-1953) implied a further emphasis on the settlement of the rural area.\footnote{93} Seeking to reverse urban growth, the administration advanced a local synthesis following the English Barlow model and German Siedlungen notions. The program limited the growth of existing urban centers through the formation of smaller, well-bounded urban and semi-urban developments.\footnote{94} Twenty-seven of the new towns (which the state called development towns Arei or Ayarot Pituah) were defined in the first national plan as a major tool of immigration absorption in 1953. Matters of territorial development, housing (Shikunim), new civic centers, and new town plans (Figure 2.10) for these towns therefore gained a central place in architectural discourse.

Through the official sphere, architects’ writings assimilated a planning discourse that highlighted economic, social, and territorial (infrastructural) development issues. While this discourse re-articulated the distinctions between the rural and the urban spheres and functions, focusing on the importance of the new satellite regions (napot or independence their practice turned primarily towards more urban commissions. One example is the couple Shulamit and Michael Nadler, who in the mid-1940s while still graduate students at the Technion, started designing agricultural programs, upon independence the profile of their practice shifted considerably towards institutional commissions in urban centers. Interview with architect Shulamit Nadler, December 2014. Comments also based on the interview with Arieh Sharon’s daughter Yael Aloni, November, 2016.\footnote{93} Gevti, Ibid. Vol II. Chapter 1. As planning historian Smadar Sharon has claimed, this call was a response to the actual growth of Jewish urban centers during the two decades preceding independence (1933-1947). Sharon. (2012). 37-41.\footnote{94} In this regard, Ben Gurion’s project aimed to challenge the actual trends of settlement surveyed in the decades preceding and succeeding independence. These trends contradicted the emphasis of Zionist and Israeli planning agencies on the colonization of the countryside. See Elisha Efrat. Rural Geography of Israel. (Tel Aviv: Achiasaf, 1994). 76-99. Not only did the pre-state kibbutzim refuse to serve as an absorption base for new immigration in the first five years after independence, the kibbutzim movement as a whole suffered in this period from negative demography, as 8 percent of its members left for more urban destinations. Henry Near, Movement in Abeyance, the Political Activity of Ichud Hakvutzot ve’Hakibutzim in the First Decade, 1951-1961 [in Hebrew]. (Ramat Efal: Yad Tabenkin, 2013). 15.
ezorim), it also gradually relegated the rural sphere and its buildings to an official sphere of discourse. This sphere was little attended in more public arenas of architectural discussion. Planners and architects believed that cooperation between settlements and settlers in production, distribution, health, and education services as well as social and cultural gatherings would take place in collective public areas distributed through the settlements. Thus this new architectural planning vocabulary no longer defined urban, civic buildings and representation as ideal. They were instead tied to tasks through the regional networks distributing settlements and programmatic components.

Sharon’s *Physical Planning in Israel* and Arthur Glikson’s essays from the 1950s, written during their engagement with the Ministry of Housing, typify this new planning agenda. They supplanted the functional discussion of buildings advanced in 20 Years of Buildings (which centered on notions of design, representation, and character) with functional thinking toward a gradient of settlement types that would form a regional system. The gradient of settlements provoked a reflection on the distribution of settlements in various scales and types, their autonomous and inter-regional shared centers or facilities (schools, health care services, cultural and social centers, and production related functions, such as tractor units packing facilities, etc.). As the number of settlements grew, German and English planning discourses from the interwar period had increasing power. Responding to the national settling institution’s colonization

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95 See also discussion in chapter 1 and chapter 3
96 The Anglo-Saxon versions of such regionalist thinking, which was disseminated in Palestine through Patrick Geddes, his immediate collaborators (Jacob Ben Sira Shifman) and planners influenced by his work (such as Artur Glikson), found in the CIAM context a metaphoric expression through notion such as the scales of association and the civic core. See Jacqueline Tyrwhitt. *The Heart of the City: Towards the Humanisation of Urban Life.* (London: Humphries, 1952). The Israeli version, which also included an important influence of German geographer Walter Christaller’s analysis of regional distribution and economy of small towns, turned towards a non-qualitative language. On Christaller’s role in Israeli planning agendas, See Reichman Shalom and
perspective, they described the new towns as filling the void between pre-state villages and metropolitan centers.  

This discourse led to the re-coding of the concepts of “rural” and “urban” as typologies, such as cooperative and collective villages, gave way to the multi-unit village, the inter-regional rural-urban center, and the new town regional center. This understanding of settlement types as components of the economic, social, and cultural system of the newly settled regions promulgated a rewriting of typical geographical areas and characters in planning terms. It resulted in a new planning discourse, predicated on regional geographical terms, which described programmatic components as production and operational units.

The journal Handasa Veadrichalut (Engineering and Architecture) gave another type of expression to the modernism of the first decade, as it brought together discussions and visuals from the field of territorial development with the larger scale housing and institutional programs in urban centers and new towns. In the two decades following independence it communicated a retreat from the rural building and domain as a source for design. Generally speaking, the journal focused on two phenomena beginning in the 1950s. Firstly, it portrayed a shift of architectural interest from rural to urban design, both to new towns and to major cities. Although the values of simplicity and economy retained their centrality, they more narrowly served descriptions of urban or metropolitan design

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98 Arieh Sharon’s discussion of the settlement gradient is in (1952), 7-10. Exceptional was Arieh Sharon’s short comment on the new town civic center: “In the new town there will be localized a number of neighborhood units around a civic center that will have a clear architectonic and urban character. In the urban center there will be found the major institutions of the city, business, banks, commerce, storage, social and public houses, the central schools and cultural houses and in their proximity, ornamental and vegetable gardens…” ibid. 8.
tasks. Secondly, the journal separated the editorial boards and sections for the discussion of architecture and engineering related issues. By treating technical and territorial development concerns (water, electricity infrastructure, industrial development) as engineering issues under this new division, it disassociated the technical and economic rationale pertaining to land development and its related institutions from an architectural agenda. The journal also consigned civic centers, university campuses, hospitals, housing, and town planning as a whole to its architectural coverage. Engineering covered issues like technical preparations made towards the foundation of new settlements and towns in the Negev region (Lachish) in the south of Israel.

The next section reveals how various design-oriented discussions advanced by the Architecture section of *Engineering and Architecture* addressed the two strands of functionalist revisions—regionalism and development planning in the 1960s. Aba Elhanani and Aviah Hashimshoni, both architects and critics, played pivotal roles in promoting and defining the terms of a public debate on design outside of clearly identified professional frameworks.

### 2.2.1 Between the Founding Fathers and Tashach Generation

An examination of Aba Elhanani’s (1918-2008) and Aviah Hashimshoni’s (1912-2008) contributions to the revision of functionalism relies on several features...

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99 The claim of rural simplicity in the context of metropolitan architecture was also furthered through the 1950s and 60s with the short reviews prompted by the Rokach Architecture and Engineering Award, initiated in 1955 by the municipality of Tel Aviv (and continued to this date). The award committee consisted of three jury members: an engineer or architect representative of the Association of the Architects and Engineers, a representative of the Faculty of Architecture and Town Planning at Technion (usually the Dean) and a representative of the Tel Aviv municipality, usually the city engineer. See Tel Aviv Municipality Archive, the Rokach Award Folders.

100 See *Engineering and Architecture. Vol 1.* 1954. The issue was based on a symposium held September 1953, in the Binyanei Ha-uma convention center in Jerusalem.
characterizing their positions, writings, and intersecting biographies.\textsuperscript{101} Both were part of the first wave of students to have studied at and graduated from Technion Faculty of Architecture and Town Planning when architect, educator, and general Eugene (Yohanan) Ratner’s (1891-1965) modernist curricular revision held sway. Hashimshoni was Ratner’s teaching assistant and served as the dean of the Faculty of Architecture from 1959 to 1965.\textsuperscript{102} Ratner’s rejection of the eclectic and Orientalist rationalism of Alexander Baerwald, the Technion’s first director of the Faculty of Architecture (1925-1930), prompted the approach that dominated the Technion at the time.\textsuperscript{103} He embraced functionalism, which both his own essays and Elhanani’s and Hashimshoni’s comments on his legacy connect to his conservative approach to modernism.\textsuperscript{104} It approximated National Romanticism;\textsuperscript{105} On the one hand, he professed the idea of a configuration oriented around an interior organic stem, his term for the design’s programmatic contents and spatial arrangements. On the other hand, Ratner emphasized the mastery of material techniques, yet he did not privilege reinforced concrete as a sole modern material.\textsuperscript{106}

This second aspect implied Ratner’s understanding of the roles urban regulations should


\textsuperscript{102} Hashimshoni’s memoirs. “Teaching at the Technion”. Ofrat Harel, Private collection.

\textsuperscript{103} This narrative is also found in Aba Elhanani’s book, \textit{The Struggle for Independence of Israeli Architecture} (1996). See excerpt in this chapter appendix. An examination of the architecture pedagogy at the Technion is beyond the scope of this study. On Ratner’s work, see Sylvina Sosnovski, ed. \textit{Yochanan Ratner, the Man, the Architect and his Work} (Haifa: The Technion Architectural Heritage Research Center, 1992). On Alexander Baerwald’s work see Yossi Ben Artzi, “The Study Journey of Alexander Baerwald” in \textit{Zmanim 96} (Autumn, 2004), 14-21.


\textsuperscript{105} On this term see Barbara Miller Lane, “Introductioon”. \textit{National Romanticism and Modern Architecture in Germany and the Scandinavian Countries.} (Cambridge: Cambridge University Press, 2000).

\textsuperscript{106} Accordingly, his architecture’s recurrent use of typological features such as cornice and vertical windows did not conform to the machine-like aesthetics that was identified with Jewish modernism in the 1930s. For such an identification see, Michael Levin. (1984), Alona Nizan Shiftan (2004) and Sharon Rotbard and Orit Gat. \textit{White City, Black City: Architecture and War in Tel Aviv and Jaffa.} (Cambridge: Mit Press, 2015).
play in determining common design features. While constraining individual creativity, such regulations could also foster the elaboration of a local or vernacular modern culture based in concrete or stone construction. He promoted these aspects towards the idea of nationally driven modernism seeking organic character as a style.

The conservative modernism proclaimed by the Russian Jewish architect Alexander Klein (1879-1961), who taught at the Technion from 1936 to 1949 and the Jewish architect of German descent Henri Shapira were secondary influences on the Technion curriculum in the period when Elhanani and Hashimshoni studied there.\textsuperscript{107} Hashimshoni served as Henri Shapira’s teaching assistant as well as Ratner’s.

Elhanani wrote until the early 1960s for \textit{Engineering and Architecture}. He wrote the first history of Israeli architecture published in Hebrew \textit{The Struggle for Independence of Israeli Architecture} in 1998 which assembled three decades of writing for his own journal, \textit{Outline [Tvai meaning also path] Quarterly for Architecture, Plastic Arts, Industrial Design and Planning} founded in 1966.\textsuperscript{108} The journal approached architecture and planning from a new perspective relative to the 1950s discourse, one that included several design professions, and a growing emphasis on the plastic arts. Its thematic issues, focused on new town planning, civic centers, monumentality, and high-rises, tied local discussions to international discourse. Emphasizing the establishment and promotion of a contemporary discussion of design (critique, bikoret) that would promote

\textsuperscript{107} We are still awaiting a history of architecture teaching at the Technion. Little evidence remains about Henri Shapira, although it is known that he had served as the head of the German architect Hans Poelzig’s office in Berlin. The above comments are made on the basis of Elhanani’s and Hashimshoni’s short comments in the essays analyzed in this section and on Hashimshoni’s personal memoirs, In Ofrat Harel, private collection.

a “local” modernist culture, each issue had an editorial essay by Elhanani, additional essays by nonaffiliated contributors (planners, artists, engineers, sociologists), as well as the transcripts of public symposium that included representatives from different professions in the journal. As part of a similar culture of public critique, Elhanani occasionally contributed short reviews to the daily newspaper Ha’aretz in the weekly section “Literature and Culture,” which the writer, graphic designer, and sculptor Benjamin Tammuz (1919-1989) edited from 1965 to 1971. In this context, Elhanani’s appraisal of the newly designed Tel Aviv municipality by the architect Menachem Cohen prompted a spontaneous public debate around the theme of mediocrity and anonymity in architecture and the arts in which major Israeli artists intervened alongside Tammuz and Elhanani (Figure 2.11). The transcribed discussions in Tvai as well as the Ha’aretz debate presented to a public sphere discussions on architecture that took shape outside the frameworks founded on official publications or professional associations.

Hashimshoni published less frequently than Elhanani. Tammuz invited him to contribute to an anthology of essays, Art in Israel (1963, 1966 English translation), and he wrote an essay “Architecture” that reflects a similar set of conditions and concerns to those discussed above. Like the subtitle of Elhanani’s journal, Hashimshoni’s essay testified to the positioning of architecture among the plastic arts. Both stipulated

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109 The themes covered by the journal during the 1960s were high-rise buildings, the planning of the shore line of Tel Aviv in the old Arab neighborhood of Al’Manshia, urban landscape, the public monument and more. On Elhanani’s role as correspondent covering Israeli architecture in non-Israeli journals see. Efrat. Vol I. “Concrete.”.

110 The full debate in the Ha’aretz journal was collected and re-published by architectural historian and curator Zvi Elhyani, Historical 01: Aba Elhanani, Kav-Tvai, [in Hebrew, exhibition catalogue]. (Jaffa: Beit Ha-adrichal, 2009). The following discussion is based primarily on the Ha’aretz debate on mediocrity in architecture, viewing it as representative of Elhanani’s approach as critic and editor also in the Tvai journal.

limitations on architects’ restrictive license for creativity.\textsuperscript{112}

Reflecting on institutional design in Israeli cities, both authors also represented revisions of the 1930s and 1940s call for economic restraint and simplicity of character outside the purview of a revolutionary pioneering experience. They sought the ongoing cultivation of these values within the older and new metropolitan settings of the state. In this regard, they represented a conservative stance relative to architectural public discussion, which was in tune with the discourse surveyed in the 1940s and further developed through the \textit{Engineering and Architecture} journal.

\subsection*{2.2.2. Institutional Mediocrity for the Urban Citizen}

In the beginning of the twentieth century, we are witnessing an encouraging revivalism; artists that were centered around the “Bauhaus” are trying to reconstruct the fragments of the broken pyramid, back to the crafts! These encouraging credos are cutting through the world’s space. Healthy ideas are being rooted, arts in the service of life! Functionalism! Sincerity! The end of false materials and forms! For one moment it seemed that indeed a foundation was laid for a contemporary art, for a rational architecture, for a new style. However such a thing necessitates a process of many decades in order to found and crystallize such a style in the arts’ work of artists and architects, that will be satisfied in the development and in the foundation of their parents’ ideas…. As a conclusion, the city of Tel Aviv has gained an important building, serious, impressive and with a human scale, a building that might become likable for Tel Aviv citizens under the condition that it will be fitted by people who are as moderate as [the city citizen], modest and human as he is. — Aba Elhanani, “In the Praise of Mediocrity in Architecture,” \textit{Ha’aretz}, 1965.\textsuperscript{113}

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\begin{itemize}
\item The essay resulted from an invitation by Benjamin Tammuz (1919-1989), a writer, literary editor, sculpture and graphic designer of Polish descent. Like Hashimshoni, Tammuz was part of the group of artists organized around Yohanan Ratosh who from 1952 advanced a Kenaanit trans-Mediterranean (Israeli) culture. In his role as editor of the Culture and Literature section in the \textit{Ha’aretz} daily newspaper, Tammuz also published the debate over Elhanani’s appraisal of mediocrity. The volume included also the Yona Fischer’s essay “Painting,” Mira Fridman’s “Sculpture,” and John Cheini’s “Pottery and Crafts.” Similar to Fischer’s essay which was written on a boat trip to Europe, Hashimshoni wrote his essay during a boat trip to Spain; see Hashimshoni’s memoirs. The collection was an initiative of Alexander Pelli, the second editor of the Massada publishing house. The latter was less interested in matters of culture and the arts and envisioned the volume as what is now referred to as a “coffee table” or “gift” book (following a previously aborted project to write a plastic arts lexicon). Fischer, who at the time of the publication served as the art curator of the museum of Jerusalem at the old Bezalel, recalls that Tammuz did not communicate a clear editorial agenda with the contributors to the volume, and pursued the work on the volume separately with each contributor. (Interview with Yona Fischer, Tel Aviv, December 2015). Alona Nizan-Shiftan refers to Hashimshoni’s essay as the first architectural history to be written after independence. Alona Nitzan-Shiftan. \textit{Israelizing Jerusalem: the Encounter between Architectural and National Ideologies, 1967-1977.} (MIT: Ph.D. Dissertation, 2002). 35-47.
\item In Elhyani. (2009). Ibid.
\end{itemize}
Elhanani’s stance on functional simplicity was primarily articulated relative to his discussions of design for urban institutional headquarters, municipalities, the Israeli parliament (Knesset), and the 1927 design of the Jewish Agency for Israel by Yochanan Ratner. For example, his *The Struggle for Independence of Israeli Architecture* noted Ratner’s “revulsion of monumentality” in the Jewish Agency building (1927 design, 1936 inauguration), where he sought “to integrate formality and festivity.” He praised Ratner’s ability to provide “a measure of dignity” “with few means and impressive restraint,” calling it “a legitimate formula for the design of modern public buildings.” Thus he deemed it the symbol of a new beginning of modern building in Palestine.

In line with the transition from the rural to a broader cultural framing of architectural design prevalent in the 1960s, Elhanani advanced the idea of functional simplicity through the notion of civic modesty or mediocrity. These two terms might be taken to signify different intentions. Assuming a restrained individual agency or creativity, his appraisal of mediocrity conjured postwar revisions of the functionalist city

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114 See discussion of the building and of Ratner in Aba Elhanani, (1996) and Aviah Hashimshoni’s “Architecture.” Excerpts in the appendix of chapter 2. Elhanai’s comments on the building were also developed in an earlier commentary in the *Davar* journal in 1984, Sosnovsky Silvina, ed., (1992): “At the end of the 20s Ratner won the competition for the design of the national institutions (the Jewish Agency for Israel) in Jerusalem and he built an impressive building that manifested more than any expression his belief concerning the right evolution of Israeli architecture. There are distinct beliefs as to Yohanan Ratner’s design skills, but there is no doubt that this building is a landmark in the guiding principles that are embedded in it, and that helped base a local, unique and truthful (or sincere) architecture…. and this is Ratner’s lesson: a modern building with an almost abstract integration of local morphology, without monumentality, that was foreign to him as it was to the origins of modern architecture.”, 98.

115 See full citation in the chapter appendix. On this work by Yochanan Ratner see also chapter 5.

116 This stance is primarily read in the public debate that was prompted by his positive review of the as-yet-unknown architect Menachem Cohen (1931-) for the Tel Aviv municipality (competition 1955, design delivery 1966) in the Ha’aretz daily journal, June 1966. Elhyani. (2009); It was also formulated through a series of published symposiums in the *Tvai Quarterly for Architecture, Plastic Arts, Industrial Design and Planning* that he founded in 1966 after his resignation from his post as a writer for the journal *Handasa Veadrichalut*. 59
agenda, specifically as articulated in the Italian and North American contexts. In the Italian context these values pointed to the primacy of repetitive and generic urban fabrics, which lacked the distinct character of unique designs or authors, nor by the clean-slate (relative to historical precedence) of industrialized building practices. In this respect, Elhanani’s references to design by “adaptation” to local historical models and through simpler morphology, civic modesty and mediocrity, were close to design values such as typology and attendance to “existing conditions” through which Italian architects in the postwar period reclaimed an attenuated modernism and industrialization of building practices.

Elhanani’s comments on design for institutions in the 1960s construed the notion of mediocrity through a dualistic value system. He criticized the Bat Yam municipality (1963), which Alfred Neuman (1900-1968), Zvi Hecker (1931-) and Eldar Sharon (1933-1994, Arieh Sharon’s son) had designed, as gestural, spasmodic, and expressive of psychosis (Figure 2.12). He lamented the rise of an individualist, commercial endeavor geared towards formalist innovation and towards a fleeting fashion-oriented

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117 Elhanani’s knowledge of the North American scene is explicit in the debate on mediocrity through references to Lewis Mumford’s critique of the UN building and the Boston municipality building. Other references to North American discussions are read in his use of the term *izuv ironi* (urban design) in lone with Jose Luis Sert’s use of the term and in the coverage of and a conference on skyscrapers held in New York for the *Tvai* issue on the topic in 1966. His acknowledgment of the Italian and the North American discourses can be inferred from the bibliography of the *Struggle for Independence*, which includes primarily resources from these contexts. Elhanani’s indebtedness to these two contexts goes beyond the scope of this research.


119 His analysis of Ratner’s design formulated in his last book (1996) resonated with such notions of simple morphological adaptation of historical precedent.
cosmopolitanism. He saw these values in the design’s complex, volumetric arrangement that challenged and contradicted straightforward use and offered no clues as to the function of the building. Such a critique of the building seems to have been directed to the ways in which the local culture received, specifically in the context of the exhibition Form Today, which Yona Fischer curated for the Jerusalem Museum of Art. The exhibition presented various designs from this architectural team, including the Bat Yam municipality along with artistic developments in the plastic arts, emphasizing formal ingenuity on the verge of material expression. Elhanani’s non-individualist monument seemingly responds to, and challenges, the more sculptural, personal, and (arguably) emotive stance on public art and monumentality communicated through Fischer’s edited journal Kav, which presented the sculptor Ygal Tumarkin’s designs for war monuments in its fourth issue (Figure 2.13).

Fischer’s curatorial emphasis paralleled the chorus of voices that the Ha’aretz, a daily journal, raised against Elhanani’s endorsement of anonymous mediocrity. The Israeli poet Nathan Zach, representative of the young generation of non-nationally-aligned poetry and vanguardism in the 1960s, the architect Yacov Rechter, and the sculptor Ygal Tumarkin each interpreted Elhanani’s review as a conformist legitimization of banality and lack of individualism. They viewed with skepticism his open subordination of the arts to a national project.

Against the Bat Yam municipality design, Elhanani put forward an alternative

120 Ha’aretz, 07.08.1966: “Not the fashion of the last autumn but the style of the contemporary period. And as we know, an époque is not a season (i.e. longer temporal units) as much as a style is not a fashion.” In Elhyani. (2009).
121 Interview with Yona Fischer, November 2016.
approach that he primarily attributed to Menachem Cohen’s design for the Tel Aviv municipality (figures: 2.11 and 2.14). His comments on this design emphasized the building’s simple and legible volumetric arrangement, separating the administrative tower from the cultural center. He praised the first building’s “simple cubic shape,” horizontality, and the way it was set on a raised platform that served as a bridge above the artery of Keren Kayemet Boulevard. He interpreted this decision as an expression of the civic institution’s “stretching out its arms to the public plaza,” and in so doing, addressing the urban citizen. Elhanani understood the localization of the municipal cultural center at the level of the raised podium and in the rear of this first volume as a good measure that provided legibility for these two programmatic entities. Referring to Lewis Mumford’s critique of the UN headquarters design directed by Wallace K. Harrison and Max Abramovitz, Elhanani saw in Cohen’s Tel Aviv municipality an example of a “good establishment of a symbol” for which the American critic had called.

Through these two precedents, then, Elhanani delineated two distinct professional cultural etiquettes. In the first, he identified individualism with journalistic, commercial, and egoistic endeavor. The second practice, which de facto, also relied on the sphere of journalism, was more neutral, restrained, and legible; its formal measures balanced artistic and professional, or user-related requirements. Asserting the design’s contribution to a civic space and a contract between the built environment and the citizen, this second approach represented a profession enrolled in the service of the collective.

123 In addition to the work of Ratner, Elhanani identified a similar approach in his comments on the work of Joseph Klarwein and Dov Karmi’s design for the house of representatives (Knesset) building, In Elhanani Tva‘i, Vol 3. 1967.

2.2.3. Fabricating a Professional Civic Culture

Pointing to the early twentieth century international and primarily European modernism with its emphasis on functionalism and rationalism as a new beginning for the definition of a contemporary style, Elhanani acknowledged it was dependent upon a long-term process of collective construction:

It [style] necessitates a process of many decades in order to crystallize and found such a style in the ants’ work of artists and architects that will be satisfied in the development and in the foundation of their parents’ ideas…. As a conclusion, the city of Tel Aviv has gained an important building, serious, impressive and with a human scale, a building that might become likable on Tel Aviv citizens under the condition that it will be fitted by people that are as moderate as [the city dweller] modest and human as he is.”

This stylistic definition, as portrayed through the Tel Aviv municipality design, relied on several post-World War II critiques of functionalism: Mumford’s rejection of American high modernism, Luis Sert’s notion of civic and urban design, and, more implicitly, postwar Italian critiques of modernism. In expressing such a definition, Elhanani was doing nothing less than reframing the moderate modernism that was advocated at the Technion under Ratner, for whom restraint exemplified the correct professional etiquette. His intent would have been understood through his references to Yochanan Ratner and Alexander Klein in the debate. He described their approaches as based on legibility, simplicity, and generational continuity, and, in the case of Klein, on the idea that the building should be inscribed in a wider built context—the notion of a man-made natural environment (“a tree in the forest”).

Such comments synthesized the postwar claims in favor of civic space and design, with a Jewish pre-state search for local national style and culture. Both arguments, the international and the national, rejected idiosyncratic formal ingenuity in favor of a notion

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125 These last points stress strong similarities both to Ratner and Klein’s conservative modernism and to the rationalist strand in post war Italian culture specifically expressed in the writings and work of Ernesto Rogers.
of mediocrity: a lack of building individuation or ostentation. Further, both were predicated on the primacy of the notion of fabric, be that of a civic space, the built environment, or of professional culture more broadly. Both arguments conveyed an understanding of design’s natural-like features.

Post-World War II calls for civic design referred the contemporary practice to the fabric of historical, long-durée, or vernacularly defined urban sites. In the case of Ratner, his writing and pedagogy communicated a nationalist-driven notion of modernism. Ratner, and Elhanani after him, understood this modernism in terms of an ongoing professional project that was responsible for founding and shaping a “rooted,” local and national culture.

Exemplified by Elhanani’s praise of mediocrity, specifically in his reflection on institutional design, this nationalistic modernism presupposed that an interpretative and adaptive professional stance to design could sustain a collective. Elhanani advanced a harnessed individuality in service of the establishment of a collective built and cultural fabric. In so doing, he sought a modernism capable of professionally and culturally naturalizing civic institutions and its modalities of operation (style), appearing as the product of the “ants’ work of artists and architects.”

Elhanani’s comments envisioned mutuality between generational and professional exchanges in the construction of the environment. The image of the ants, suggested mediocrity was a foundational value of kinship.\textsuperscript{126} This mediocrity underpinned the

\textsuperscript{126} This role corresponds to what architectural historian Lawrence Vale, following the anthropologist Clifford Geertz, discusses as architecture and urban design’s capacity to form an “iconographic bridge” connecting between past and present generations. Vale, (1992), 55. While not proclaimed relative to any clearly distinguished social institution, Elhanani’s points also resonate with Mary Douglas’s comments on institutions’ need to substantiate their categories and values through reference to ancestral fathers and that such references can
temporal and spatial dimensions of style, and more broadly, an Israeli urban and national place. From a temporal standpoint, this value assumed a smooth inter-generational exchange. It was based on shared formal and material arrangements that would gradually establish a collective professional culture. From a spatial standpoint, such exchange was a means of grounding the Israeli modernist environment and its civic institutions as part and parcel of an organic culture of place. Shifting towards municipal and state institutional settings, Elhanani nonetheless communicated a commitment to the same design values of modernist simplicity and modesty evident in 20 Years of Building.

2.2.4. Comprehensive Building Anonymity in Hashimshoni’s “Architecture”

Therefore, when we ask ourselves whether Israeli architecture has reached a maturity of artistic style or not, we must first determine whether we mean by ‘style’ a certain sophistication of decorative externals or style as comprehensive planning and design…. The true values of architecture in Israel are not to be measured, however, by the decrees of fashion, the profusion of decoration, nor the belittlement of formal values in some works. The special quality of Israeli architecture is to be found in the breadth of planning and organization, in the principle of comprehensive building direction; in conforming to a scale for people living in surroundings new to them; in the practical approach to the solution of architectural problems. The defects, but also the merits, of Israeli architecture stem from the fact that its well-spring is not greatness but vitality. Only a few creations have succeeded in synthesizing greatness and vitality; the majority indicate that architecture in Israel is still in the process of crystallization. — Aviah Hashimshoni, “Architecture” in Art in Israel, Benjamin Tammuz. Ed. (London, W.H. Allen, 1966). (228-229)

Non-polemical in its tone, Hashimshoni’s essay “Architecture” (1963, 1966) provides another image of the establishment of a stylistic and professional fabric on the basis of modernist functional building (Figure 2.15). It was the first single-authored essay that historicized Israeli architecture prior and after independence.127 Like Elhanani’s

127 Hashimshoni’s essay was succeeded by the architect Amiram Harlap’s book New Israeli Architecture (in English), a publication that resulted from the author’s two decade-long work in the Ministry of Housing, where
work it was published in a venue that was not aimed at a professional or politically
organized public; *Art in Israel* was created as a gift book celebrating the first decade of
independence.\textsuperscript{128} The essay’s moderate tone and credo in part reflected this audience. Its
non-polemic restraint was also grounded in design values and in Hashimshoni’s
perspective on the history of architecture in Israel.

“Architecture” reflected on an Israeli style that specifically envisioned its
establishment in terms of a national institutional project. In so doing he opened with a
qualification, distinguishing architecture’s creation from the other arts covered in the
volume. Framing the institutional project of Israeli architecture as a result of the
economies of construction related to municipal and state powers serving as land
development authorities, the essay points to an issue that was at the core of *20 Years of
Building*: the ways architectural historiography reflected on the transition of design from
coop to state management.

Hashimshoni sought to reflect on the contours of an Israeli architectural style.\textsuperscript{129}
Distinct from Elhanani’s qualitative notion of mediocrity and grayness, Hashimshoni
articulated a quantitative notion of functionalism and style. This notion was based on
Hashimshoni’s emphasis on the material conditions—understood in terms of

\textsuperscript{128} According to Israeli art curator Yona Fischer (who wrote the section on Israeli painting) the book project evolved from an aborted art lexicon that the owner of the Massada editorial, Alexander Peli, had asked Fischer to write around 1958 in the context of the celebration of the first decade of Israeli independence. As this first project did not evolve, in the early 1960s Peli approached Benjamin Tammuz, who according to Fischer was already an authoritative figure in the fields of the arts, in great part also due to his association with the Kenananit movement. Interview with Yona Fischer, November 2015.

\textsuperscript{129} It more specifically shares the civilizational framing of artistic culture and style that is stated through Tammuz’s “Introduction.” in *Art in Israel* (1966).
constraints—in which architecture was developed and could eventually achieve cultural expression or style. His claim for functionalism (or practicality) at the conclusion of the essay was that it could be defined in terms of a national architectural culture of “comprehensive planning and design” or “comprehensive building directions.”

Hashimshoni’s emphasis on the comprehensive nature of Israeli design offered an alternative vision of modernism’s translation into an anonymous culture. It also reflected on the reality of this culture’s institutional underpinnings. Similar to Elhanani, this emphasis synthesized pre-independence local approaches, primarily forged at the Technion, with post-World War II revisions of functionalism. Hashimshoni’s use of the notion of comprehensive planning to discuss Israeli post-independence design culture alluded to a notion that was central to Patrick Geddes’s regional planning model (discussed in chapter 1) and post-World War II development planning expertise (which chapter 3 will discuss).

While not yet articulated in terms of comprehensiveness, Hashimshoni’s opening statements further substantiated the idea of comprehensive planning and design with which the essay concluded. These statements described the contemporary constraints under which architectural creation operates. Hashimshoni identified these constraints with the influence of municipal and state organizations as architectural clients. Decisive factors included the scale of commissions (and the client respectively) and issues of building industrialization in the period after independence

130 Hashimshoni, “Architctur.” Ibid. 229.
131 “The intimacy of the relationship between architecture and the general cultural fabric is the main reason why architectural expression attains clarity but slowly. In order to arrive at clear artistic expression, the creator must be free, not only to express himself, but to choose the means by which he expresses himself… …The freedom of the architects is limited in two special ways; first in the close relationship between himself and whoever is to make use of his plan, that is the builders, the craftsmen and technicians. These
The freedom of the architect is limited in two special ways; first in the close relationship between himself and whoever is to make use of his creation, that is, his client; secondly between himself and the executors of his plan, that is the builders, the craftsmen, and technicians. These two factors lacking the directness, the freshness, and the rooted certainty which were the heritage of historical architecture, nevertheless enter the creative process and modify the general pattern of spontaneous construction.

In this comment, Hashimshoni stressed a connection between architecture’s qualified individual creativity (its capacity to express a cultural milieu) and its ability to attain qualities of creation and expression that he described in more organic or lively terms (“the directness, the freshness, and the rooted certainty”). These qualities resonated with the image of the autonomous, individual artist that he identified, by way of contrast, with the other plastic arts, which he distinguished from which the architect as creator.

Hashimshoni’s statement that the limitations on architects’ freedom entered into and modified the “general pattern of spontaneous construction,” implies that they became intrinsic to style. Building on the notion of a spontaneous creation that was modified by exterior constraints that he introduced in his introduction, he concluded that comprehensive planning and design, building directions, and overall straightforward practicality, phenomena he noted, was in the process of formation (“crystallization”). He described it as lacking greatness yet characterized by vitality. This observation of a style under construction, moderate yet vital in its accomplishments, provided a positive note on the possibility, albeit partially accomplished, to form a modern functionalist Israeli style.

Hashimshoni’s analysis of style responded in this respect to Benjamin Tammuz’s Introduction to the book. In it, Tammuz called for the identification of the mixture of bottom-top social strands and influences. He addressed these in ethnic terms, and noted
an expectation that they would be synthesized into a local culture. In a somewhat similar vein, though not based on an ethnic argument, Hashimshoni followed the individual approaches that have marked Jewish practices in Palestine and Israel. Seeking the establishment of “uniformity,” and a “homogeneous cultural fabric,” or still the “general pattern of spontaneous construction,” his comments examined the different contributions of architects and design approaches relative to their capacity to form a common model of practice, to set up principles of work. In this respect, his analysis bore upon the contribution of authors and design models in shaping a local professional knowledge.\textsuperscript{132}

2.2.5. Narrating the Translations from Building to Comprehensive Planning and Design

Hashimshoni’s essay construes the gradual crystallization of Israeli style, and with it the transition from functionalism to comprehensive planning and design, through a historical narrative. It opens with the early modern Jewish settlement in Palestine in 1881 and concludes in 1963, at the moment the essay was written. Hashimshoni divides this narrative into five phases: 1881-1920; 1920-30; 1930-40; 1940-50; and 1948-63 (sometimes including secondary sub-divisions within these phases).\textsuperscript{133} Restaging the nineteenth century argument on the battle of the styles, Hashimshoni noted variants of \textit{Neues Bauen} approaches affirming themselves, against 1910s and 1920s eclectic orientalism, from the 1920s onwards. He discussed these variants through the works of creative individuals—Erich Mendelsohn, Richard Kaufman, Leopold Krakauer, Yohanana.

\textsuperscript{132} Hashimshoni, 206, 207, 211. See also when discussing the contradictory nature of a contemporary civilization: “It is no wonder, then, that the contemporary architect is principally concerned with finding a \textit{modus operandi} which will allow him to weed this body of contradictory factors into a single homogeneous fabric” (217).

\textsuperscript{133} 203-204.
Ratner, and the members of Tel Aviv Chug, including Arieh Sharon, Dov Karmi, Zeev Rechter, and Joseph Neufeld. Hashimshoni described occasional alliances between these architects, their experimentation with new forms, techniques, and design tasks and commissions by co-operative settlements or institutions. Judging their work relative to the telos of a local style, he positively reviewed their contributions as leading to rational principles and allowing for higher degrees of uniformity.\textsuperscript{134}

Like Elhanani and Ratner’s views, Hashimshoni’s description of the 1920s and 1930s asserted functionalism and modernism as a design culture organically taking root in Palestine.\textsuperscript{135} This establishment of a culture of functional building finds its apex in the narrative through the description of Ratner’s 1927 winning entry for the House of the National Institutions in Jerusalem’s competition, the house that holds the administrative seats of the Jewish Agency for Israel and the Jewish National Fund (Figure 2.16):

The progress of pre-state architecture from eclecticism and the desire to create a local style based on a full understanding of the underlying principles of architecture is dramatically exemplified in the 1927 competition for the design of the National Institutions Building in Jerusalem. This building, or rather group of buildings, was to represent the headquarters of a state in the making. The judges included the Viennese

\textsuperscript{134} This cursory functionalism in the narrative is primarily attributed to the work of the Technion’s first director, architect Alexander Baerwald, and his disciples. Hashimshoni identified an initial affirmation of this value in the designs of institutional and housing programs for the rural settlements, specifically in the works of Richard Kaufman (1887-1958) and Leopold Krakauer (1890-1954), as well as in the works of Erich Mendelsohn (1887-1953). Furthermore, he saw this value accomplishing a more synthetic and less technical or simplistic result in the work of Yohanan Ratner, specifically as he analyzed his approach through his winning entry for the Jewish Agency Headquarters. In the period succeeding independence, Hashimshoni’s discussion of functionalism as a disciplinary discourse was further an issue of historicizing as he pointed to the various strands of modernism into which interwar discourse developed. Hashimshoni, 216-217.

\textsuperscript{135} This was close, as noted above, both to Elhanani’s discussion of Ratner (1996) and to Ratner essays (1992). In these essays, Ratner emphasized a programmatic and climatic rationale and efforts to adopt primarily European models to local conditions that will allow for moving beyond the original remit of individual authors and into an anonymously shared and non-fully administered culture of design. This view, that is restated in Hashimshoni’s essay consisted of an historiographical model assigning qualified agency to individual authors, viewing them as cultural mediators and synthesizers of existing threads who establish new common grounds for contemporary practice: “Mendelsohn’s architecture was essentially a compromise between the traditional building of his age and the constructivist and planning values of the new school. It is still too early to evaluate the overall importance of Mendelsohn in disseminating modern architectural ideas throughout the world. Limiting our assessment to Palestine, we may point out that here he assumed the role of co-coordinator and unifier, drawing together the efforts of many Jewish architects and setting them upon a single common path”. (211).
Jewish architect, Josef Frank. The plan chosen was that of an architect almost unknown at that time, Yohanan Ratner. Contrary to views popularly held at the time, Ratner's plan neither included any historical element, nor did it follow the monumental symmetry which characterized nineteenth-century architecture. His plan, which was analytical and functional, envisaged a group of independent structures centered around a single hub, and built with outside walls of Jerusalem stone, the constructional framework and the interior walls to be of reinforced concrete. The plan received special praise for its success in emphasizing clearly the function of architectural space as the inner content of architecture. It must be remembered that, in the period under discussion, the trend had shifted from building stylized structures to local patterns, and the influence of functionalism was gaining ground. The latter aimed at designs evolving from a sort of inner necessity, dictated by the function which any given building was required to fulfill. (208).

The description resonated with Elhanani’s notion of a moderate yet civic institutional design. It foregrounded Ratner’s combination of plastic and spatial (artistic) sensibility with clear (analytical) programmatic organization. Hashimshoni described Ratner as representing a balanced approach to functionalism, analytical and holistic, and not wholly technical.

This sequence correlated the design of the major pre-state Zionist institution, (also the central organ of co-op planning), with the consolidation of a local style. Hashimshoni’s review of the clarification of a local style under Jewish modernism—through Ratner and other protagonists working in phases 2, 3, and 4 in the narrative—described such functionalism in terms of attempts by professional agents to define design strategies and knowledge. Parallel to this narrative, Hashimshoni pointed to the gradual intervention of land-settlement institutions in the definition of functionalism as design approach. He emphasized the roles these institutions played in coordinating and scaling up planning tasks and in promoting practical, economic reasoning characterized by a

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136 This is also the case as the consolidation of a functional design approach conjures clarity of judgments effective compromise between contradictory requirements (primarily artistic and technical) as well as capacity of analysis and synthesis. Ofrat Harel commented that Hashimshoni’s professional pride was particularly based on the idea of professional moderation and budget control. Interview. December, 2015.
137 Except for the Jewish National Fund, these are left primarily unidentified.
general lack of spontaneity. This description portrayed these institutions as precursory agents of comprehensive planning:

In addition, spontaneous creation [referring back to the works of individual authors. m.h.] is almost entirely absent in the pre-State tradition, which employed rational planning as its basis. The functional approach and the desire for comprehensive planning were adapted to local conditions and adjusted to the modest scale of building of the pre-state period by the Israeli architect. Practical solutions and a lack of pretention typified that era. Together with these features, we find excitement over the very act of building, a sense of public responsibility, and a relentless search for proper solutions to the country’s unique building problems. The pre-state architect was conspicuous for his cooperative attitude toward the material requirements of building work, and sometimes identified his viewpoint with them [the material requirements, m.h.]. (205)

This description recalls the understanding, communicated in 20 Years of Building, of Israeli functional building as a product of a purely technical or economic approach to shelter provision. This practice and its products—the act of building and the building—are described here as meaningful because of their sheer existence and “practical” (sachlich) approach. More specifically, the role Hashimshoni attributes to settlement agencies’ and co-operative institutions’ practice of settlement and resource management is analogous role to that which 20 Years of Building attributes to the same agencies and institutions. He describes these institutions as parallel historical agents of Israeli modernist functionalism that operated alongside individual authors’ more intentional culture of design, specifically during the transition to statehood.139

The phase following independence is divided into two secondary periods, 1948-

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138 Another aspect of this characterization of functionalism is found in the following passage: “Most Israeli building to this day is still subject to the pressure of urgency and the need for swift planning without adequate preparation. Large-scale projects, public buildings, new towns and regional developments embracing both rural and urban areas are made in haste. Even overall plans for nation-wide building are produced under relentless pressure. It is no wonder then that given these conditions two types of architecture predominate. In one, improvisation plays a large part; the other is based on stereotyped formulas which fulfill only a small part of architectural requirements” 202-203.

139 This aspect, resulting in “practicality,” denotes another functional aspect that is less intrinsic to a culture of design, which was also in line with 20 Years of Building and a post-independence culture of comprehensive planning. This was the case, as this aspect did not result from self-proclaimed architectural intentions, but from external constraints to which design has to comply.
1955, in which new towns and large-scale housing projects defined the primary architectural programs (Figure 2.17); and 1955 onwards (to 1963). In this second phase, Hashimshoni identified an effort toward comprehensive synthesis. This notion, as discussed above, was based on Patrick Geddes’s regional planning agenda and was central to post-World War II architecture and planning cultures either through the CIAM meetings or the expert culture of development planning. It undergirded the humanistic, civic, and developmental critiques of interwar functionalist urban visions.

Hashimshoni’s description of the period beginning in 1955 emphasizes a move towards a large-scale public complex that brings together multiple programs: “From 1955 onwards there was a marked tendency to look for new forms of comprehensive planning for all the components of a city — public buildings, housing, traffic regulation, and a proper blending of working and residential areas.” Using the above-mentioned regionalist vocabulary, Hashimshoni argues that Israeli land development and planning authorities, both municipal and state based, turned at this time towards a more holistic planning approach (Figure 2.18).

Hashimshoni underscored the heuristic need to shift from the category of the individual author to that of building programs (housing [shikun] and public institutions, primarily university campuses and hospitals, Figure 2.18). This claim asserted a shift

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140 This period was preceded, according to Hashimshoni, by a more mono-functional approach focused on housing provision: “Between 1948 and 1955 particular attention was paid to apartment housing and to the problems of national planning; architectural ideas were those of the preceding phase, particularly in the influence of English satellite-town planning”. ibid, 204. Hashimshoni’s periodization scheme presupposed four relatively distinct decades preceding statehood: prior to 1920; 1920-30; 1930-39; 1939-48; and two sub-periods afterwards, 1948-1955 and 1955-1963. Ibid. 203-5.

141 Hashimshoni develops an argument similar to the one Sharon will develop a decade later through Kibbutz + Bauhaus (see chapter 3). However, none of the images Hashimshoni provides for this phase effectively depict this more holistic approach, as they are still focused on a building, i.e., a relatively isolated architectural object.

142 As we have noted, the activity of Israeli architects since independence has been energetic, extensive and continually pressed for time. The fruits of this activity may be viewed rather as a collective than an individual
from the characteristics he noted in the pre-state period, in which individual authors still served as primary historical agents and towards the culture of comprehensive planning and design after independence. He characterized pre-state architecture as a dual culture operating between author-based, bottom-top intervention and institutional influence. The discussion of building programs emphasized instead the perspective of comprehensive planning that municipal and state organizations primarily directed as major clients. It portrayed these organizations and their resulting metropolitan programs as the primary historical agents after independence.

The essay concluded that if there is a uniformity of style, it is not one based on complex or decorative formal features, but on the comprehensive practicality, relative formal simplicity, and vitality characterizing the designs of the period after independence. Here, Hashimshoni translated one notion of modernist anonymity, or cultural fabric resulting in style, into another. The first notion denoted a mitigated process of exchange between generations of architects acting as mediators of Western modernist trends and the further dissemination and simplification of their contribution through land development institutions. The second notion was more univocally directed top-to-

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See Hashimshoni’s discussion of the period succeeding the works of Krakauer and Kaufman as that of synthesis, unification, and the role of Mendelsohn as a precursor offering a new, more purged model of practice to be further followed thereupon (211). As Hashimshoni’s narrative suggested, it was a dialectical exchange between a multiplicity of individual strands and their crystallization into unity (style): “It is no wonder, then, that the contemporary architect is principally concerned with finding a \textit{modus operandi} which will allow him to weed this body of contradictory factors into a single homogeneous fabric.”
bottom, by township and state commissions. It further emphasized a lack of spontaneity. However, as noted earlier, it was not fully in conflict to what the essay sought—the establishment of a homogeneous cultural fabric and expression.

Recalling Elhanani’s praise for mediocrity, we bring to mind the metaphor of the ants’ labor—representing professional agents, architects, and artists alike—to describe the acculturation of Israeli institutional design as a culture of the place. This metaphor naturalized what his description also acknowledged and acclaimed: design characterized by simplicity, grayness, and mediocrity. In Hashimshoni’s survey, the transition from pre-state functional building to post-independence comprehensive practicality denoted a similar acculturation of Israeli institutional design. It imbued the latter culture of large-scale institutions for municipal and state anonymous publics with the organic characteristics of the preceding moment. By extension, Hashimshoni described post-independence restraints on creativity, defined by the economies of client and construction industrialization, as favorable for the emergence of a national culture. While not marked by “greatness” these restraints, and in turn the economies of state land development, effectively shaped a culture of practical directness, freshness, and vitality.

2.2.6. Reviewing Comprehensive Practicality

This acculturation of the state’s architectural fabric was also communicated through Hashimshoni’s rhetoric and imagery. These paralleled the less narrowly technical and specialized architectural debates that resulted from Elhanani’s polemics on mediocrity. Hashimshoni’s rhetoric and use of imagery defined a form of architectural cality.

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144 Benjamin Tammuz, stated a similar understanding of the type of discourse that this moment prompted: “One has to be thankful of the debate in a public, non-specifically professional arena. The matter is an issue of the lives of many and hence needs to be clarified, as was the case up to now, in the closed spheres of experts, through
judgment. This judgment conformed with Tammuz’s somewhat ambiguous call for an “unaffected and unsophisticated” view of connoisseurs who would nonetheless have the passion of art lovers.\textsuperscript{145} He communicated this through the idea of a non-polemic survey in which, acknowledging a wide range of positions (both individual and cultural/institutional), the author reverts to a balanced view of design creativity. According to this view, architectural creativity is formed in the negotiation between international and local influences and responds to a set of material constraints, both social—as per client expectations—and economic—as per construction.\textsuperscript{146}

Hashimshoni’s argument resonated with Elhanani’s point of view. This shared view characterizes these two critics’ work within frameworks that were not strictly identified professionally and politically, and involved collaborations with other art mediums. Their embrace of attenuated creativity marked a distance from the growing private sector of galleries emerging at this time in Israel, and from architects gradually responded to the private market in the year of economic prosperity (1958-1964). Such approach demonstrated a credo based on the collective that implied an alternative to the pre-state collectivist ethos and the rising interest in affiliating with liberal capitalist economies of the west.\textsuperscript{147}

\textsuperscript{145} Tammuz himself argued for the publication’s contribution to an art historical survey in civic servitude when he stressed the duality between the need to form an objective, disinterested judgment and the commitment to an erotic relation to the arts (the passion of the art lovers). In “Introduction,” ibid. 6.

\textsuperscript{146} Hashimshoni, 199-200. As discussed at the beginning of this section on Hashimshoni, he saw these constraints resulting, in the context of post-World War II welfare states, in new scales of commissions and industrialization of construction. On architecture under the welfare state see Mark Swenarton, Tom Avermaete, and Dirk van den Heuvel. “Introduction”. In Mark Swenarton, Tom Avermaete, and Dirk van den Heuvel, eds., Architecture and the Welfare State. (London: Routledge, 2015).

Similarly, Hashimshoni’s emphasis on clear design (analytic in nature), relative formal simplicity or lack of formal sophistication, and comprehensive practicality, substantiated his commitment to such a non-polemical, disinterested judgment. This judgment coupled the art historical perspective of the publication with an understanding of the specificity of the architect’s professional expertise. It corresponded with Hashimshoni’s stance on architectural pedagogy as dean at the Technion Faculty of Architecture during the 1960s. Influenced by regional discourse and the rise of environmental debates, he aimed to ground design teaching in urban geography, sociology, and studies of the environment. Such curricular orientation opposed and sought an alternative to the studio culture practiced by the architects gathered around the figure of Al Mansfeld. Hashimshoni’s notes on Ratner’s 1927 design for the House of the National Institutions provided an example of such a judgment in the text. He described the house as devoid of superfluous mannerism; it was holistic insofar as it maintained clear, analytic understanding of the organization and the program’s entities yet addressed plastic and spatial values.

Finally, Hashimshoni claimed that his survey and views could be best understood through the readers’ direct engagement with the works under discussion. The appended visual portfolio provided another version of an objective professional stance not removed from the vitality of the material at hand. Vitality could be discerned in the view from Israel’s political discourse in the context of the to Cold War cultural divisions, see Sachar, 1986, 458-464, 572-575.

This group of professors fought for the centrality of a Beaux Arts-like atelier culture that would derive its knowledge and legitimacy from an individual professional practice. See Hashimshoni’s reflections on the tensions at the Technion during the 1960s in his collected personal memories, in Ofrat Harel, private collection.

“Special notice must be given to the growing importance attached to relating a building to its surroundings, that is, the need for a bond between the architect's creation and the circumambient light, air and landscape. With this approach, natural surroundings become an integral part of the architectural creation and constitute a link
eye-level, and by images characterized by vivid tonal contrasts, material textures, and a representation of the building within its broader surroundings. This type of objective judgment and practicality was close to the Bauhaus’s culture of Basic Design, which chapter 3 will reconstruct. Hashimshoni’s essay naturalizes state institutions through its call to engage directly with the material at hand and so give expression to its vital nature. The emphasis on dispersed authorship, simplicity, and practicality communicated a nationally and state-driven design etiquette as the architectural critic, historian, or pedagogue inhabited it.¹⁵⁰

At the very moment of creating a more liberal and individually driven public discourse on architecture in the 1960s, the charges of political institutions and a collective ethos hindered an expression paralleling the one that was concurrently reclaimed in plastic arts. Like Arieh Sharon and Emmanuel Yalan’s practices, which the next chapter will analyze, Hashimshoni’s essay portrays the embedded status of the architecture profession and the architect as a social agent within the structure of state power.

2.2.7. 1960s Israeli Functional Civics

Hashimshoni’s and Elhanani’s writings manifest three aspects of knowledge that distinguish the 1960s architectural profession from earlier decades. First, they use the

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¹⁵⁰ It seems plausible that this professional decorum relied on the positive model of judgment that Hashimshoni attributed to Ratner’s Jewish Agency design. This consisted of a disciplinary stance (the full grasp of the architectural principles) and of a balance between analytic and plastic skills standing for the clarity in the definition, expression and articulation of programmatic functions. It had to do also with Hashimshoni and Tammuz rejecting what was understood by them as the prevailing commercialization of architecture and design during the 1960s.
Aramaic-derived term *Adrichalut*, meaning the slave, also founder (*adri*) of the temple (*hal* from *Heichal*) or more broadly, monument. This choice of term betrays the shift in the 1960s from conceptual, value-driven negotiations between *building* and *architecture* to a more self-contained, independent discipline. This shift paralleled and characterized the move away from the rural and towards urban settlements evident in public writings at this decade, as rural building and settlement ceased to serve as the focus of functional building (as in *20 Years of Building*) and of urban tasks of design.

Second, their writings, in both their configuration and argumentation, advanced new professional nomenclatures. They shifted from the more technical alliance with engineers and surveyors that had exclusively bracketed the writings of the previous decades to a professional alliance that was predicated upon the redefinition of architecture as *design* or as a plastic *art*, subject to review, comparison, and evaluation on its own terms. In so doing, Hashimshoni and Elhanani promoted a field of architectural criticism that seemed independent from pre-state, co-op institutions, specifically the Federation’s Union of Engineers, Architects, and Surveyors. They did so by underscoring the establishment of an ostensibly non-aligned professional and civic discourse. Their writings reflected the centrality of the Technion School of Architecture as Israel’s primary institution for professionalization. As Ratner, whose writings anticipated theirs, argued this discourse also viewed modernism as a guarantee of a

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151 This term (*adrichalut*) denoted an alternative to the Greek-derived term *architectura* and gained currency in Israeli architectural journalism during the 1960s. This word was based on the junction of two roots, the slave (and as such ‘builder of’) big halls or monuments (*Ad* and *Eichal*).

152 i.e. it was distinct from the alliance of written criticism with the institutional arsenal of the Federation.

153 “Architecture’s new role in society provides a useful frame of reference for a survey of Israeli architecture. The fifty-year-old Israeli school of architecture developed during that period when the profession of the architect took on this broader meaning of which we have written. It is an integral part of general contemporary architecture, paralleling its growth, experiments, and achievements”. Hashimshoni, “Architecture,” 201.
mutually beneficial relationship between a professional discourse and a national cultural discourse, one that was understood as overcoming commercialism.

Third, and relatedly, Hashimshoni and Elhanani understood revised functionalism as relevant to the constitution of a distinctly national collective. They envisaged this collective in terms of a relatively anonymous public and clientele. Their notions of anonymity (gray mediocrity or comprehensiveness) were not technocratic in nature. Instead, they acknowledged the new conditions of institutional commission and representation in Israeli urban centers after independence. They sought modernism not as revolutionary or avant-garde position but rather as an ongoing civilizing project that would become established through the accelerating history of a developing nation.

2.3. Conclusion

This chapter has traced changing attitudes toward modernist functionalism in the context of representative institutions and publications before and after independence. I have explored the different ways in which architects negotiated functionalist terminologies to reflect on the issue of co-operative and state development-related economies. They did so through approaches that depended on exploiting the tensions between disciplinary agendas and exogenous restraints that the institutions themselves defined. Rather than simply technocratic (and by extension homogeneous in nature), these functionalist approaches were culturally heterogeneous. This heterogeneity pertained to the juncture between disciplinary and institutional discourses and to a dual hybridization that occurred at the level of these two discourses; on the one hand, the building of the state apparatus after independence from previous co-
op institutions, and, on the other hand, in the transition from interwar New Building to post-independence comprehensive planning and design (and grayness). The chapter has surveyed these transitions based on three primary sources that promoted functional design values, to articulate typical national geographies, and institutional and individual agents.

Through the analysis of *20 Years of Building*, the chapter showed how functionalism relied on a spectrum of tasks and sites. This spectrum ranged between tasks and sites that the publication identified as ordinary, rural, and administered by the Jewish Agency, and between those more monumental, institutional, and urban in nature that were commissioned by co-ops, such as the Health Fund and the General Federation (*Kupat Holim* and *Histadrut*). The definition of a functional building depended on a dialectic between two types of rationales: the first was extraneous because it developed prior to any intentional architectural approach, and the second was intrinsic to a modernist design credo that argued for simplicity. In this manner, the acute economy of the Jewish Agency’s developmental measures served also as a foundation for the cultured economy of design for the General Federation administrative headquarters.

The emerging architectural criticism in the 1960s discussed through Elhanani and Hashimshoni furthered the second of these two rationales. In line with postwar civic and humanist revisions of modernism, it did so by thinking of the civic realm independently of the pre-state rural-urban spectrum. In this discourse, the civic realm and programs and their functional economy marginalized the rural domain and its tasks. The rural, as a domain identified with radical constraints and economy, was subsumed under the 1960s rhetoric of anonymous publics and commissioning agencies, whether city- or nation-
based. Elhanani and Hashimshoni’s writings identified the institutional powers that determined design practice with a non-aligned modernist profession, and with the Technion Faculty of Architecture as a primary site for its cultivation; on the other hand, their writings reflected on institutional power through new types of commissioners (municipal or state based), and their publics.\textsuperscript{154}

Their new terminologies, displaying a disappearance of the rural building and the rural area as a reference of Israeli architectural writing in the 1960s, reflect a shift toward a more centralized and centrist practice and discourse of planning. The chapter interpreted Hashimshoni’s use of the terminology of comprehensiveness, and Elhanani’s emphasis on grayness as a means of furthering the organic attributes of pre-state building culture. Both terms resonated with 20 Years of Building’s description of rural (and by extension, urban) buildings as organic elements of the environment. Given state and municipal production-related restraints, Hashimshoni’s comprehensive practicality can also be read as furthering the economic rationale that 20 Years of Building separated from the architectural. His conclusive comments on the ongoing crystallization of a style of comprehensive planning and design can be interpreted as a historiographic closure of the dialectic between the two seemingly discrete economic rationales that were articulated in 20 Years of Building.

\textbf{2.4. Texts Appendix}

\textsuperscript{154} In Elhanani’s case, this public was identified as city citizens. In the case of Hashimshoni, he invoked the image of an anonymous public, in which architecture, in terms reminiscent of several strands of postwar civic discourses, is called on to define an expression of smaller groups of association.

The craft of construction, with its complexity and simplicity, stood in front of us in 1918 as a miraculous kingdom, veiled by a secret mist, just as diverse agriculture stood in front of us in 1908, with the first settlers to Kineret.

The hired worker is not capable of penetrating the mysteries of his profession due to his lack of patience, the quality of the contractor. He may barely envision his own self, the very edge of which he is confined to by force. The people of the second and third immigration waves have penetrated this kingdom—through their own contractors’ means, through contractors’ offices and the workforce (Gdud Ha’avoda), through groups and collectives of contractors, through hunger and deficit and insistence of the will to conquer the pioneer economy. Afterwards construction was deciphered to its depth (lerochba uleomka) with a firm and trustful hand—the construction used in height, digging, layering, irrigation, excavation, chiseling, metal bending and concrete molding, the layering of bricks and of stone, construction of housing and institution, from bottom to top (min Ha’massad ve’ad Ha’tfachot) and into the foundation of magnificent city districts and all that they include—and, it goes without saying, settlements and farmsteads [meshakim, standing for kibbutz and farmsteads, m.h.]. And also in depth: for the construction of a jetty for Tel Aviv port, for the laying of pipes in deep sea, for diving as in a song, enormous building complexes will rise by themselves in a short time, like Reeding power station in Tel Aviv—with the same hands doing the work [ossot ba’melacha] and might be again unemployed, are not yet satiated—and so will rise and glimpse, as does the field in the agricultural farmsteads, apartment houses, production houses, and public buildings, built by the hands of the settlement members themselves. Here, a cowshed; here, a house; here, a school. Of one founded in Mizra, one of the pages [in the book, m.h.] says, “The building was begun at the time of emergency prices, but was executed in a very economical manner, in comparison with similar programs in other places, thanks to the experienced management of the kibbutz members themselves, who were well versed in construction, in technical aspects and in economic conditions.”

A person who is familiar with the execution of our settlement construction (bnyia Hitayshvutit) will see how many blessings the knowledge of the construction craft [mela’acha Banayit] has brought to our agriculture. The measure of the building and the blade of the plough are bound together!… Construction at face value - means dealing with real materials and real problems: slatted roof or concrete roof? A rectangular or fragmented form for the modest rural house? Full western orientation of the face or partial orientation? A waiting area for a health-care clinic open on both sides, or mono-oriented? etc.… The best of construction for the need of the public and people in the past twenty years in the country is in the book in front of us. It is a construction endeavor,
using public administrators and planners: settlement buildings, housing, and public institutions. The typical examples, organized by category, are a means to explain and to make known the major problems, the comments and criticism, written by every surveyor and surveyor, which are not final judgments on the wellspring [used as a metaphor referring to the totality of the Federation production, m.h.]. This volume, the first in assembling multifarious material and indicating problems and solutions, is a useful companion to the settler and dweller, to those responsible for public institution buildings, each debating his specific questions, and for the construction workers in the thousands.

Staff correspondent. “Beth Brenner Represents New Labour Achievement—Simplicity is a Dominant Keynote.” Palestine Post, Jerusalem, Thursday, August 21, 1935.

Beth Brenner [designed by Arieh Sharon, m.h.], which was formally opened in Tel Aviv on Tuesday afternoon, represents an unusual achievement on the part of urban workers of this country. Built at a cost of about LP. 20,000, it is an impressive and practical monument to organized labor. The workers of Tel Aviv themselves have contributed from their daily wages to pay for the building. Its stark simplicity, in which the only decorations are the construction elements themselves, is effective and impressive. There is a complete absence of all ornamentation and at the same time the total effect is most attractive. There is a pleasant harmony between the furnishings and the building, which is decorative without being gaudy and plain without being monotonous. The Co-operative Workers Kitchen will occupy one part of the building and will, when fully equipped, be one of the most modern and attractive restaurants in the country. About 350 people will be accommodated at a time in the main hall and on the balcony and the shaded terraces. Hidden lamps and fixtures made in this country will provide indirect lighting throughout the building, and all its equipment and materials, from the metal window frames and metal cabinets to the electrically refrigerated room in the kitchen, were manufactured locally. The building will house the offices of the various unions of the Federation, such as the Carpenters’, the Painters’, the Plasterers’, the Needle Workers’ and others. Like so many undertakings in this country, the organization has already outgrown the capacity of this building, and some of the newer sections of the Federation unfortunately will not find room there.


The last architect in the opening five [the five Jewish architects with which his narrative opens, and the fifth that in fact attests to the correct direction in which architecture should go, m.h.] is my professor and rabbi (mori ve’rabi) Yohanan
Ratner. The Jewish Agency building in Jerusalem that Ratner designed after winning a competition in 1927 is not only a building of high architectural achievement, but also and maybe primarily—a highly important didactic model whose lessons have not yet been sufficiently assessed. Yohanan Ratner, who was born in Odessa in 1891, immigrated to Israel in 1923 after he finished his studies in Germany (and even served in the Red Army). Even if Ratner respected Baerwald and appreciated his inquiries, he negated his path. He did not believe in the renewal of past styles so much as he refuted a non-critical import of present styles. He battled in both speech and writing against the adoption of modern mannerisms from foreign countries and embraced a pursuit to consolidate a local architecture. However, he did not believe in the compromise explored by Baerwald; Ratner knew that a local architecture has to assimilate the achievements of the thought of the modern movement and its human and social aspects. His revulsion for monumentality, which was characteristic of the new architecture in Europe [Elhanani’s footnote points to Siegfried Giedion’s post-war revision of this approach, m.h.], and his consistent and ardent functionalism prove that he non-reservedly belonged to the camp of the *moderna*… …Ratner, who was well versed in the history of architecture, apparently noticed that the modern movement did not inaugurate a new definite architectural style, but only created a basis on which different architects could cultivate local versions… …As he created the design for the Jewish Agency building, Ratner sought to lay the foundations for a new way that he deemed right and fitting. In this building he expressed his beliefs for a desirable direction in which Israeli architecture should march in order to mature as an authentic architecture, appropriate for its time and unique to its country. Ratner was by nature a modest person, a man of *understatement* [in English and italicized in the text, m.h.]. This personality was in line with the avowed modesty of the modern movement. Ratner understood that in the Jewish Agency building—the seat of the future government—there was a need to integrate both formality and festivity. According to Ratner this did not necessitate “outdated” monumental solutions. It seems that the curved court that he designed for the entrance of the Rechavia neighborhood [the neighborhood in which the building is located, m.h.] served for him as a court of ceremony (*COUR D’HONNEUR*) [capitalized and in English in the original, m.h.] à la Europe, and as a reminder of the oriental court—the one in front of the mosque—or the help in the synagogue. Both were meant to “create a distance,” to serve as a preparation to people coming from the “secular” street into the “sacred” atmosphere of this building, with its important national status… …With few means and impressive restraint, Ratner created a building with a measure of dignity, one for which the fact of being set in Jerusalem is part of its essence. There is no doubt that this building offers a legitimate formula for the design of modern public buildings in a country rich with history.

The interesting buildings of Haifa Technion also include the students' dormitory, the prize-winning plan of which was drawn up for a competition by Khavkin. Here the relationship of the individual to the entire building has been emphasized, and to that end some individual comforts have been sacrificed. The general result recalls Le Corbusier. This approach is more equable in its application in the smaller scale of the dormitory than in large buildings, where the end result seldom justifies such humanistic pretensions. ...In our survey of Israeli architecture we have tried to focus attention on the central problem, that of establishing a proper proportion between planning for the individual and planning for the anonymous public. In between these two extremes is an intermediate area in which the individual comes into contact with the small group. In this area relationships are subject to chance and difficult to define. The new understanding of the importance of this factor—the small social group—in architecture is expressed in various ways. On the one hand, designers try to emphasize the aesthetic qualities of building masses that avoid banality and to create centers of interest that add variety to the urban landscape. This emphasis may be criticized when it is not based on an analysis of real needs. On the other hand, a solution is posited by the creation of several types of private dwellings and public buildings in a single complex, where an attempt is made to express various group needs in the social structure. Special notice must be given to the growing importance attached to relating a building to its surroundings; that is, the need for a bond between the architect's creation and the circumambient light, air, and landscape. With this approach, natural surroundings become an integral part of the architectural creation and constitute a link between the individual and the group. In order to fully present the architectural values either of a single work or of the work of a whole country, as this survey attempted, a literal description, or even one fully documented with photographs, is insufficient and can be misleading. A proper grasp of the subject can be secured only by seeing the buildings and gaining direct impressions of their scale, their details, and their relationship to their environment.

Only in this way can the artistic merit and special attributes of Israeli architecture properly be gauged. We are prompted to ask ourselves if Israeli architecture exists on its own, as a distinct style. It is a reasonable question, since we associate the concept of style with a sureness of consistent creation, free of futile gropings. But equally, we used to associate the concept of style with such factors as special design requirements for parts of buildings, and especially with external decorative elements. The tendency to create a style by the deliberate use of decorative elements is not at all new. Ever since the Renaissance, there have been long periods of time in which superficial manifestations derived from a literary or romantic decorative approach have been accepted in the place of a true style. Therefore, when we ask ourselves whether Israeli architecture has reached a maturity of artistic style or not, we must first determine whether we mean by "style" a certain sophistication of decorative externals or comprehensive planning and design. [italics added. m.h.]. An examination of stylistic
manifestations shows that many recent works by Israelis display decorativeness. But since these Israeli architects are students of the practical modern school, this decorativeness is expressed in pseudo-constructivism in which various buildings are divorced from simplicity and directness by the almost systematic use of forms borrowed from larger, industrially-fabricated structures. This accounts for the use of rhythmical repetitions, natural to large buildings in industrial centers, on small buildings; the use of walls with huge openings for small buildings; forms derived from prefabricated techniques on ordinary buildings; dramatization of structural and spatial frames out of proportion to the building's content. In terms of the development of Israeli architecture, these manifestations, to be found also in the work of many other world-famous architects outside Israel, are undesirable and constitute a fashion destined to pass. It is to be hoped that this practice will leave behind, however, a desire for formal completeness, which is its only justification.
Chapter 3. Articulating a Comprehensive Co-op Economy

Honeycombs are composed of hexagons, which provide both living-space for the bees and storage chambers for their product. The choice of hexagons was the correct one....

The solution of hexagons adopted by the bees was the most spacious, logical, comfortable, and economic one, using beeswax as the basic building material. (Italics added) — Arieh Sharon, “Chapter 1: A Young Man’s Way to the Kibbutz 1921-1925”. In Kibbutz + Bauhaus, an Architect’s Way in a New Land. (Stuttgart & Tel Aviv, Verlage & Massada, 1976). 14.

The plots have to be laid out parallel to the contour lines because it’s best that the plough furrows run horizontally and are as long as possible.... It’s obvious to anyone who works in this field; there’s no need for any special investigation.... From that time [referring to Yalan’s first engagement in settlement planning] to the establishment of the Rural Building Research Center, and to this day, I am constantly confronted with the fact that one cannot accept routine conclusions without a fundamental and unbiased examination. In that way, essentially, began the period of my work in the planning of agricultural settlement, demanding the blazing of new trails towards unorthodox solutions by means of investigation. The work of rural planning requires one to be out of doors in all kinds of weather and in contact with the farmer, whether he is experienced or a new settler, which proved to be a never failing source of inspiration. (Italics added) — Emmanuel Yalan, The Design of Agricultural Settlements, Technological Aspects of Rural Community Development.

This chapter compares Arieh Sharon’s Kibbutz + Bauhaus, an Architect’s Way in a New Land (1976) with Emmanuel Yalan’s The Design of Agricultural Settlements — Technological Aspects of Rural Community Development (1975). Both were the authors’ final books, and both were published as the Mapai Party’s five decades of political hegemony was coming to an end.155 The Design of Agricultural Settlements had two objectives: it outlined a theory of rural design and planning, and it functioned as a manual for planners. Kibbutz + Bauhaus was an architectural monograph as well as Sharon’s

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155 The Mapai (the Party of Israeli Workers), first labor party, began to wane in 1967 as Israel shifted from welfare state politics to liberal capitalism. The country began to undertake large development projects in East Jerusalem and outside the green line more broadly at this time. In Uri Ram, The Globalization of Israel: McWorld in Tel Aviv, Jihad in Jerusalem. (Tel Aviv: Ressling, 2007). In architectural practice, vernacular orientalism began to merge with a post modernism informed by US corporate models. (On these two strands see, Alona Nizan Shifman. (2002), and Zvi Efrat (2004) and Dan Handel and Alona Nitzan-Shiftan. “Industrial Complexes, Foreign Expertise and the Imagining of a New Levant.” International Journal of Islamic Architecture. Volume 4, Number 2, 1 October 2015. 343-364 (22). See also discussion in chapters 1 and 6.
professional autobiography. This chapter follows the thread of the inquiry in chapter 2 regarding functional design vocabularies, the ways they reflected an institutional culture and matters of professional knowledge. It does so through an examination of two authors who played significant roles in defining design strategies of Israeli agricultural cooperative institutions. Both books reviewed almost three decades of practice with cooperative institutions and state planning agencies.¹⁵⁶ Like Elhanani and Hashimshoni’s writing, these two books reflected the transition from pre-state cooperative management to post-independence regional development models. As chapters 4 and 5 will discuss relative to specific designs, each book was the product of a distinct professional culture related to Israeli cooperative administrations.

The publication of *The Design of Agricultural Settlements* and *Kibbutz + Bauhaus* both marked the juncture between the consolidation of co-op institutions before independence and the beginning of their disintegration succeeding independence.¹⁵⁷ The ways in which local professional discourses and the authors’ institutional expertise were established and claimed in response to this juncture thus appears in both. This chapter examines how each author articulated this transition around functional design agendas and vocabulary that pertained to issues of optimal economy and comprehensive planning.

### 3.1 Israeli High Modernism and Economy in the Field of Settlement


We have seen how, in spite of changing geographical focuses, and professional terminologies, issues of functional design remained an ongoing architectural concern in the period following independence. Designs from the first two decades after Israeli independence were functionalist in that they reflected an industrial and technocratic architectural culture. Historians of Israeli architecture stress that functionalist assumptions (e.g. universal and scientific space standardization and minimization) were part of a progressive strategy to unify the nation’s diverse population.\(^{158}\) Existing accounts, however, do not fully explain how Israeli architects of the era understood this functionalism. By comparing Sharon and Yalan’s writings, I will reconstruct the ways they used the concept of functionalism, which they understood as an attribute of the larger project of cooperative community development, in the context of local Israeli design knowledge. The chapter argues that both authors grounded Israeli functionalism in terms of concerns common in the Global South, rather than the West.\(^{159}\)

The chapter follows, on the one hand, discussions in the history and sociology of science pertaining to place-dependent knowledge production. Specifically, it examines the ways in which Israeli architects invoked, and defined their knowledge relative to, cooperative settlements as an actual site of planning implementation, survey, and

\(^{158}\) Efrat, (2004), Kallus and Law-Yone advance a more critical cultural-social analysis of Israeli planning practices at this moment that stresses a similar understanding. (2000). A similar critical account on the gradual promotion of a modernist architecture “of the place,” being thematized after 1967 against this national heritage, appears in Alona Nitzan-Shiftan. (2009). These accounts of Israeli architecture culture in the first two decades after independence are close to James Scott’s analysis of post-World War II design culture in terms of top-down “high modernism” in *Seeing Like a State, How Certain Schemes to Improve the Human Condition Have Failed.* (New Haven: Yale University Press, 1998).

\(^{159}\) For a reorientation of architectural historiography in terms of the global south see: Lu, Duanfang, ibid. This perspective is central to current scholarship on Israeli architecture situating it in the context of cold war global development politics, see footnote 90.
cooperative settlements as an actual site of planning implementation, survey, and experimentation. ¹⁶⁰ Through this invocation they shaped local understandings of modernist design practicality in the context of development planning.⁵¹ On the other hand, the comparison of Sharon and Yalan further draws on anthropologist Mary Douglas’s arguments regarding the roles institutional agents play in shaping social values and linguistic classifications, specifically through the use of natural analogies and emblems.⁶² Sharon and Yalan asserted their relations with Zionist pre-state histories and their civic roles in the aftermath of independence through reference to these emblems.

Two phenomena are at the root of Sharon and Yalan’s articulations of functionalism: first, an intrinsically architectural culture came to influence these architects’ functionalism. This culture articulated functionalism through several notions, such as space optimization, economy and simplicity, that were central to the approach known under the term of *Existenzminimum* and that was systematized in the second half of the 1920s in Germany.⁶³ Working in the aftermath of Israeli independence, Sharon

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¹⁶² This point is central to Mary Douglas’ linguistic analysis of institutional logic in *How Institutions Think* (Syracuse: Syracuse University Press, 1986). 45-54, 91-110.

¹⁶³ Optimum economy and simplicity pertained in this context to issues of space minimization and flexibility, cost reduction, and aesthetics of simple design. They were first explored in the context of factory design and later in the design of workers’ households. In Eric Mumford, “CIAM 2, Frankfurt, 1929: The Existenzminimum.” *The CIAM Discourses on Architecture and Urbanism 1928-1969*. (2000). Various European and North American traditions converged through the 19th century towards an emphasis on simplicity and economy of architectural
and Yalan revised such notions under the frameworks of multi-use, systems theory, and regionalism.\textsuperscript{164}

Second, Sharon and Yalan are representative of the ways in which Israeli architects began to participate in institutional projects influenced by models of development planning.\textsuperscript{165} In line with their work for state development agencies, they reframed functionalist notions such as economic optimization and simplicity in terms of the stages of community and territorial development in comprehensive planning. Through analyzing their books in parallel, this chapter reconstructs their representations of a spectrum of geographies and tasks (rural, metropolitan, ordinary and monumental primarily) that framed a national project of comprehensive development.

### 3.2. A Note on Sharon’s Biography and Practice

The book \textit{Kibbutz + Bauhaus, an Architect’s Way in a New Land} summarized a

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\textsuperscript{164} Multi-use, systems theory, and regionalism were highly contested terms with historical roots that became prominent tropes of post-World War II architecture culture and revised modernism. Rather than promoting a new definition, the following explanation takes as a primary reference the usage of these terms in the sources the chapter is examining. For post-World War II revisions of modernism, see Joan Ockman and Edward Eigen, ibid, “Introduction”; and \textit{Anxious Modernism, Experimentation in Post War Architectural Culture}, Sarah Goldhagen and Réjean Legault. Eds. (Cambridge: MIT Press, 2000).

\textsuperscript{165} For a history of Israeli planning for economic development see Arieh Krampf, \textit{The National Origin of the Market Economy: Policy Paradigms in Formative Years of the Israeli Capitalism.} (in Hebrew). (Jerusalem: Magnes, 2014), and Sharon. (2012). For studies of architecture’s enrollment in development practices in Third World countries see footnote 90.
career of working for agricultural cooperatives and land-development institutions.\textsuperscript{166} Sharon was born in 1900, in Jaroslau, Galicia (historically Austro Hungary) to a bourgeois family. Little is known of his childhood, except that an early inclination to the field of building led him to study engineering in the German Technical School in Brno for one year (1919, former Czechoslovakia).\textsuperscript{167}

Informed by Zionist zeal that rose following the Balfour 1917 declaration, while in Brno Sharon joined the \textit{Ha’shomer Ha-tzair} Youth Movement.\textsuperscript{168} He immigrated to the Kibbutz Gan Shmuel (North of Israel, near Haifa), with a small youth collective of like-minded children of bourgeois European families to join Jewish productive labor. The group dealt with road making and agricultural works in its first year with the support of the Federation of Jewish Workers. This was Sharon’s initiation into the idea of design as emerging from primary development practices and related buildings. With his training in engineering, he became the collective settlement builder and designer, collaborating with engineers of the Federation and the Jewish Agency and experimenting in the erection of structures such as beehives, cowsheds, stables, and housing.\textsuperscript{169} He became acquainted with members of the Federation’s administrative circles at the time, which set the stage

\textsuperscript{166} These institutions included the Ministry of Housing, the UN Regional Planning Unit, the Company for the Development of Jerusalem, and the Rechovot Research Center on Settlement.
\textsuperscript{167} Sharon’s daughter, Yael Aloni, believes her paternal grandfather owned a factory that made building materials, which might have contributed to Sharon’s interest. Interview September, 2016.
\textsuperscript{168} \textit{Ha-shomer Ha-tzair} (the young guardian) was formed in Galicia as a youth movement based on notions of experiential self formation, the rejuvenation of Hebrew language (distinctly from the major Russian Bond movement stress on Ydish) and sharing ideals with the English Baden Powell scout movement and the German Wandervogel movement practices of return to nature and cultivating a sense of nationalism. In the 1920s the movement sent the first youth collective to form new settlements in Palestine, and the group of immigration flows united the Zion Youth, which formed the \textit{National Kibbutzim Association} in 1927. Sharon’s collective in Gan Shmuel was not called kibbutz when he first settled there, but received this nomination only at the second half of the 1920 following the establishment of the National Kibbutzim Association. More on the \textit{Ha-shomer Ha-tzair} in Henri Near, Vol 1, Chapter 1. See also \textit{Kibbutz + Bauhaus}, Chapter 1.
\textsuperscript{169} Sharon, Chapter 1.
for his later close collaboration with the organization.\textsuperscript{170} After six years at Gan Shmuel, the kibbutz paid his way to travel to Germany to gain training in architectural design. He enrolled in the Bauhaus School of Design in Dessau in early 1928, where he studied under Walter Gropius and the Swiss architect Hannes Meyer. The latter would influence Sharon significantly, as Sharon also occupied an important position in Meyer’s and Hans Wittwer’s firm from 1928 to 1931, and the two men collaborated on the design of the ADGB trade union school in Bernau.\textsuperscript{171} The Marxist ideology of Bauhaus under Meyer, and the notion of the cohort of students as an ideal commune resonated, as Sharon noted in his book, with his earlier experiences at the kibbutz. This chapter explores this resonance through the conceptual ties that the book forges, between various moments in his career, primarily the period at the kibbutz before his professional training, at the Bauhaus, and his practice after independence.

Upon his return to Palestine, in view of the growing building market in Tel Aviv (following the fourth and fifth waves of Jewish immigration) Sharon settled in Tel Aviv, where he associated himself with other young Jewish architects who had recently returned from studies in Europe and were committed to the ideals of New Building. This group established a local journal, \textit{Building in the Orient}, on which Sharon served as a board editor and contributed from time to time, as chapter 2 described.\textsuperscript{172} His

\textsuperscript{170} Sharon comments on his encounter with Avraham Herzfeld who served as the Federation and the Agricultural Union director (see discussion in chapter 5). He also became good friends with Yehuda Horin through the group of Gan Shmuel (Interview with Yael Aloni, November, 2015). Five years older than Sharon, Horin had been a member of the socialist political party Poalei Zion since 1921. Horin’s family connections likely supported his position in leading administrative roles in the Federation sub-cooperative, which would, in part, lead Sharon to begin receiving commissions in the 1930s from cooperatives such as the Agricultural Union, Yachin Hakal citrus industries, and, after independence, the Bank of Israel. On Horin, see “Yehuda Horin.” \textit{The Encyclopedia for the Pioneers and Founders of the Yeshuv}. David Tidhar Ed. (Jerusalem: Sifriat Rishonim, 1971). 262.

\textsuperscript{171} See \textit{Kibbutz + Bauhaus}, Chapter 2.

involvement in the Tel Aviv circle and in the institutional commissions for the Federation and its sub-cooperative associations helped Sharon win a wide breadth of commissions, including social housing, civic institutions, technical co-op facilities, and settlement plans. These positioned him in a first rank of practicing architects of his generation in Palestine.173 As Sharon notes in his book, Mordechai Bentov, the minister of Work and Housing in the temporary government (1948-1949), approached him a few weeks after the declaration of independence to lead the first national planning department. Sharon complied, and remained in this department, which was attached to the prime minister’s office, until 1952, developing a national plan that called for 27 new towns.174 Thereupon he devoted more time to his private firm, and the architect Benjamin Eidelsohn came in as a partner (1911-1972).175

Three major threads marked their practice between 1952 and 1964. First, Sharon maintained relationships within the national planning committee, and their firm significantly supported the development of new towns his first national plan had proposed. Second, Sharon’s position within Federation circles also generated a number of

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173 His first big commission for the Federation came as a result of his 1932 winning entry to the Fair of the Levant, Federation’s pavilion in Tel Aviv. On Sharon’s design for the Fair of the Levant, see Sharon, Chapter 3; Efrat, Vol I, “Afor”; and Sigal Davidi and Robert Oxman, “The Flight of the Camel: The Levant Fair of 1934 and the Creation of a Situated Modernism,” in Constructing a Sense of Place: Architecture and the Zionist Discourse, ed. Haim Yacobi (London: Ashgate, 2004), 52-75. According to Yael Aloni, in the circle of the Jewish architects Sharon was close to Sam Barkai, who returned to Palestine after working at the office of Le Corbusier in Paris, and Zeev Rechter, who had studied in Belgium and was also close to the more purist and spatial-driven thinking of Le Corbusier in the 1920s (Yael Aloni, interview). On Sam Barkai see Avi Mayer, The Architect of Right Measures, Sam Barkai. [in Hebrew] (Tel Aviv: Stoa, 2015); On Ze’ev Rekhter see Ran Shehori. Ze’ev Rekhter. (Tel Aviv: Ha-kibbutz Ha-mehudah, 1987).


175 Eidelsohn studied in Ghent between 1929-1934. He joined Sharon’s office in 1944 and upon Sharon’s engagement in national planning in 1949 took a leading role in the office, which led to his partnership with Sharon from 1954 to 1964. See biographical note in the Rokach Awards folders, Folder: 1954. Tel Aviv Municipality Archive.
commissions. These commissions concerned cooperative headquarters for institutions associated with the Federation (see chapter 5). The third strand of their practice was located between the first two: a variety of institutional complexes, such as hospitals and universities, both in Israel and in developing countries. Sharon conceptualized his work through writing in relation to these three strands: between national development, the regional-institutional complexes and ongoing commissions for the Federation, and finally the agricultural cooperatives from which his practice originally evolved before independence, and in close proximity with the Bauhaus experience. By engaging these strands, he solidified his impression of the potency of functional design.

3.2.1. *Kibbutz + Bauhaus, from Exhibition to Book*

*Kibbutz + Bauhaus* was the first published piece of writing he undertook of his own initiative, and he did so because of his recognition of growing interest in the history of the Bauhaus as an engine of post-World War II modernism.176 This recognition ensued from the fiftieth anniversary retrospective exhibition of the Bauhaus school, held in 1969 at its Berlin archive and curated by Hans Wigler and Walter Gropius. The exhibition and its catalogue, *50 Years Bauhaus: German Exhibition*, was the first comprehensive survey of the work of the school’s professors and students, and it included some of Sharon’s designs in Palestine, Israel, and developing countries (Figure 3.1, 3.2).177 Following this publication, Sharon contacted Gropius and Wigler with an idea for a monographic

176 Sharon’s pre-state writing experiences included, as noted in chapter 2, the journal *Building in the Orient* and *20 Years of Building*. Development-related institutions, for which Sharon wrote after independence included the Ministry of Housing, the UN Regional Planning Unit, the Company for the Development of Jerusalem, and the Rechovot Research Center on Settlement.

177 *50 Years of Bauhaus* was a traveling exhibition first inaugurated in Stuttgart. It was presented in the Tel Aviv Museum of Art in 1980 four years before Michael Levin’s exhibition and catalogue, *The White City of Tel Aviv*, which inaugurated a range of much-contested historical and preservationist practices. For an early study of the school’s dissemination, see Hans Wingler, *Bauhaus: Weimar, Dessau, Berlin, Chicago* (Cambridge: MIT Press, 1969).
exhibition, which was inaugurated in July 1976 at the archive and traveled, over the next three years, to architectural and educational centers in Europe and North America (Figure 3.3).  

Sharon’s physical presence at the exhibition’s inaugurations, the idiosyncratic language he used in his book, as well as the reception of the exhibition by architectural critics, substantiated Sharon’s self-positioning as an architect-author. These aspects testified to Sharon’s personal design signature and awareness of his professional visibility and use of medium. In the book Kibbutz + Bauhaus these aspects, framing his functional thinking, drew on the visual culture of basic design and on tensions and exchanges between words and photographic images. Through these exchanges the book

178 The exhibition was presented in the following venues: the Bauhaus archive, Berlin; Haus Industrieform, Essen; Kunsthistorisches Museum, Zurich; Technische Universität, Munich; Municipality Hall, Stuttgart; Fachhochschule, Hamburg; Auditorio Nacional (World Congress Center of the International Association of Architects), Mexico City; Michoacan University, Morelia; Center for the Nations Friendship, Guadalajara; University Museum of Sciences and Arts, Mexico City; Columbia University, New York; Y.W.H.A. Center, Philadelphia; and The Maurice Spertus Museum of Judaica, Chicago. In Yael Aloni, private collection, Kibbutz + Bauhaus folder 2.

179 The dialectics of word and image in the text relied on the relations between each chapter’s cover image and introduction, the chapter’s photo portfolios and captions and the longer textual formulations in the body of the chapters. Sharon claimed the argumentative value of visuals in Kibbutz + Bauhaus, 47, relative to his earlier intervention in exhibition design, specifically around the presentation of the first national plan in the 1958 exhibition The Blossoming of the Desert at the Tel Aviv Museum of Art. Sharon’s comments on the power of visual images read in part as a belated response to the criticism several of the founders of the Department of National Planning had made of the work he directed at the department (1949-1953), which had ultimately led to his resignation. For an analysis of Sharon’s visually-driven planning, see Karak, Ruth. “Planning, Housing, and Land Policy 1948-1952: The Formation of Concepts and Governmental Frameworks,” in The First Decade of Independence, eds. Ilan Troen and Noah Lucas (New York: SUNY, 2012). Sharon’s visual rhetoric corresponds to recent interpretations restoring Hannes Meyer’s positive approach to the role the visual arts and form-making played in the Bauhaus curriculum under his directorship. See Detlef Mertins, "Hannes Meyer, German Trade Union School, Bernau, 1928-1930," in Bauhaus Workshops of Modernity, 1919-1933, eds. Barry Bergdoll, Leah Dickermann and Benjamin Buchloch (New York: MOMA, 2009), 256-261, and Wallis Miller “Architecture, Building, and the Bauhaus,” in Bauhaus Culture, From Weimar to Cold War (Minneapolis: University of Minneapolis Press, 2006).
postulated visions of simple design. In part, he presented these visions in the context of recounting his years as a student at the Bauhaus. At the same time, the book formulated these visions retrospectively, discussing the moment that preceded his studies, and in relation to the visuals, spaces, and materials the “new” development of Israel required, positioning Israel as a testing area for “basic design” and the economy associated with it.

3.2.2. Linguistic and Visual Constructions of Simple Functionalism

Like the approach to simple rural building evident in 20 Years of Building, Sharon’s text relied on several conceptual spectra, among which rural building and urban architecture were prominent. Unlike the contributors to 20 Years of Building, however, Sharon addresses these pairs of notions from a developmental vantage point. He further articulated this duality as one between simple rural building and comprehensive urban complex. Transitioning between rural and urban design tasks, Sharon juxtaposed the two forms of design with the concepts of experiment and expertise. He presented himself as having the expertise to plan and design urban civic complexes because of his settler history; he based his primary knowledge on in-field experimentation in basic economic structures.

In formulating functionalism he makes extensive reference to his experience with experimentation, relying on a series of adjectives, nouns, conceptual instruments, and emblematic structures in its formulations.\(^{180}\) These defined a series of conceptual

\(^{180}\) Efrat identifies Sharon’s functionalism with what he terms its grayness (adrichalut afora). He explores grayness in relation to three characteristics. First, he discusses straightforward practicality and transparent representation of interior functions, disregarding site specificities, detail, or craft (contrasted for Efrat with the works of two other Bauhaus disciples that have immigrated to Palestine, Shmuel Mestechkin and Munio Gitai Weinraub and gained prominence from the 1930s onwards). Second, he attributes grayness to Sharon’s role in making the first national plan (the Sharon Plan, 1951), the scope of which exemplifies for Efrat a state-directed
translations, occurring backwards and forwards within the text, between institutional locales: first, between the kibbutz and the Bauhaus, second, between the amalgam of these two locales and the idea of a developing state.

On the one hand, adjectives and abstract nouns provide a set of analytical terms: simple, basic programmatic approach, primary and inexpensive, economical and optimal, clear, modest, unsophisticated, straightforward, logical, pragmatic, practical, homogeneous, small units, entity, and module. On the other hand, functionalism encompasses terms that pertain to the synthesis of a design process or solution: thorough, synthesis, functional sphere, architecture/civic ensemble, building/civic complex, and comprehensive design/planning.\textsuperscript{181}

Broadly, this list of nouns and adjectives framed optimal economic functions in terms of the expressive qualities of those simple arrangements. They portrayed Sharon’s qualitative and cultural approach to moderation as a sign of his creative persona and intuitive ability to express this value through design and writing.

Sharon proposed the achievement of optimal economy and simplicity through the use of at least two conceptual instruments: the \textit{survey} and the \textit{module}. The survey is a preliminary and systematic study of specific design problems or regions.\textsuperscript{182} He uses it to

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\textsuperscript{181} The book uses these terms interchangeably throughout. See for example page 186: “The apartment block forms a closely knit composition of hexagons and triangles, with deep shadows on the wide balconies and terraces…..We study every project carefully, so as to evolve an appropriate concept, to define an architectural solution and a methodical engineering and electro-mechanical system, to relate the building to its neighborhood and environment, with special care paid to scale and space relationships both outside and inside the building ensemble”. Sharon, \textit{Kibbutz + Bauhaus}, 186.

\textsuperscript{182} Sharon, 99-101. Survey in this regards captured the influence of the regional planning agenda, disseminated in Palestine and Israel primarily through Patrick Geddes, Jacob Ben-Sira Shifman, Artur Glikson and Eliezer Brutzkus.
refer both to a rigorous analysis of programmatic components and their constitutive aspects (formal, social, psychological, material) and to regional planning more broadly. The module refers to a primary unit of composition. He used it to refer to a series of standards originating from what he described as more or less vernacular or industrial precedents. The term appears throughout the book in relation to his work both before and after independence and before and after his formal architectural education.¹⁸³

The book provides a number of examples of what I refer to as “emblematic structures.” I use this term to designate structures that Sharon sees as offering optimal and simple solutions to various problems related to territorial and community development. Examples of emblematic structures include the beehive, the stables, the cowshed, and the bridge (Figures 3.4, 3.5, 3.6).¹⁸⁴ These structures evoke what Sharon dubs “first stages of development,” which also include tents, housing, and various sorts of civic and institutional ensembles (Figures 3.7, 3.8, 3.9).¹⁸⁵ They include everything from co-op rural outposts to state new towns or metropolitan frontiers. Sharon also describes these structures in terms that evoke character or affect (endowing them with the capacity to stimulate or bore). As such, they indicate both positive and negative primary gestures of colonization.

Among these structures, the beehive received special treatment in the book. This structure provided the clearest representation of Sharon’s understanding of first stages of development, which he formulated in terms of a natural analogy between the Zionist pioneer economy and the general economic nature of animal communities. Indeed,

¹⁸³ Sharon’s approach to modular composition of civic centers is further discussed in chapter 5.
¹⁸⁴ He does not present images of the bridge he discussed. Sharon. 16.
¹⁸⁵ Sharon, 15-23.
various examples of the beehive emblem appeared in the \textit{Kibbutz + Bauhaus} exhibition invitations and brochure.\textsuperscript{186} In the 1976 book, this emblem weaves through the narrative, helping to establish its cohesive structure.

Sharon uses the analytic terms simple, basic, and primary in his discussions of both emblematic structures and beehives. These terms suggest his debt to the Germanic culture of the New Building (\textit{Neues Bauen}).\textsuperscript{187} Indeed, the chapter on Sharon’s studies at the Bauhaus school at Dessau (1927-1929) and work for Meyer on the ADGB trade union school, states this linguistic and value-laden acculturation in terms of a pre-given and unquestionable agenda. Commenting on Meyer’s background, he comments:

Ideologically, Hannes Meyer belonged to the ABC group, believing in the most basic and simple approach to building problems and their functional solution…. But here [during his studies at the school, m.h.] the straightforward, anti-sophisticated and realistic but sensitive [Hans] Wittwer [a teacher at the school, m.h.] helped us find a simple and concrete method in our design projects on which we worked during these long two years.

Later he describes Meyer’s design methodology thus: “This basic programmatic approach was expressed in architectural small units, tied together into one ensemble, connected by covered passageways and integrated into the surrounding environment”\textsuperscript{188} (Figure 3.10).

Most of these terms served as the basis for what, under Meyer’s direction, the newly founded Department of Building defined as the technological, social, and psychological analysis of functions and their accommodation through an economic

\textsuperscript{186} For the various exhibition catalogues, see Yael Aloni, private collection, \textit{Kibbutz + Bauhaus} folder 2.

\textsuperscript{187} Architectural historian Bruno Zevi makes the same argument in his preface to the book. For the New Building thinking and its relation to realism and \textit{Sachlichkeit}, see Harry Fracis Mallgrave, ibid.

\textsuperscript{188} Other expressions of the same agenda follow: “simple pure cubes with well-organized plans and balanced elevations [that] had an attractive architectural character” (48), and: “One of the slogan[s] was ‘Materialgarecht’: being true and faithful to the nature of the material used,” and “Basically we were even not allowed to draw elevations, which were supposed to be only a logical sequel of the windows” Sharon, 30.
These terms stood for construction- and use-related design contents that
generally received a non-ornamental ("superfluous") or formal rendering (Figure 3.11).
They communicated the capacity to typify a configuration of functions through an
expressive form. Understood to be the result of an analytic calculation, these forms were
also dubbed non-representational, strictly presenting the technological and social
organization of programs through the material of building. In line with *Neues Bauen’s*
anti-monumental, socialist, and technology-driven rhetoric, this list of terms was
crystallized through the categories of *architecture* and *building*, the latter standing for a
modern culture of basic design. In his 1928 essay “Building,” Meyer explained this
category through the slogan “Function Times Economy,” as an envelope whose economy
was the pure sum of social activities. It represented the ideal, for Meyer, of a modern
design project.\(^{190}\)

Informed by Meyer’s and Wittwer’s teachings, Sharon considered both the parts
(functions, entities, materials) and the whole (ensemble, complex) of the design task to be
part of the simple and primary solution. From an architectural disciplinary standpoint,
this reflects the fact that the principle of economy guided both the analytic and synthetic
approaches of the architectural project on both the micro and macro scales.\(^{191}\)

This dual requirement for a functional unit and whole was the product of a new

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\(^{189}\) Also expressed in Meyer’s often cited dictum “Function times economy,” in Hannes Meyer, “Building” in
Architectural Book Publishing, 1965). With this last idea Sharon refers to the notion of *Materialgereicht*—that a
material treatment and appearance devises according to the nature of materials. While function as an aspect
pertaining to a building program is not the primary object of *Materialgereicht*, this notion is related to
functionalist programmatic considerations, including the demand that aspects of the architectural configuration
be addressed in a direct or un-veiled manner (in Sharon’s Neo-Brutalist terms, “without camouflage,” 31).

\(^{190}\) Schnait, (1965).

\(^{191}\) Such duality also implies that simplicity assigns cohesion to the architectural ensemble or composition as it
characterizes its various scales or levels of organization.
design culture and pedagogy that valued economic simplicity. In this regard, building not only provided proof of a culture’s modernist advancement, it also expressed an effort to overcome 19th century metropolitan and monumental traditions of design associated with the word architecture. Building then, denoted a culture of design historically preceding architecture. Sharon’s requirements communicated what architectural historians Harry Francis Mallgrave has argued was at the center of late 19th century discussions of architectural realism, a topic that later developed into the attitudes of *Neue Sachlichkeit* and the *Neues Bauen*. Historians such as William Jordy, David Leatherbarrow, and Moshen Mostafavi have argued that the impetus for representation and symbolic essence in functional thinking derived from concepts preceding professional design knowledge and substantiating its claims for validity and meaning by reference to “brute facts” or the “facts of life.” These approaches shared a predilection for what were considered primary, vernacular contents of design. Sharon used these concepts to naturalize and in a sense historicize modernist functionalist thinking, relating it to ideas about design that predated the twentieth century.

Sharon’s modernist values of simple, optimal, and economic designs served to stage, and were substantiated through, his engagements in co-op and national-driven practices of territorial development. Characteristic of the pre-independence Federation of Jewish Workers discourse, Sharon recurrently invoked the idea of a primary, simple, and economic approach to describe his resourcefulness in planting, developing infrastructure, and building. These activities, such a crucial part of Jewish pioneer culture, had been his

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192 As architectural historian Harry Francis Mallgrave has shown, several architects (e.g. Richard Streiter, Fritz Schumacher) who influenced dominant approaches at the German Werkbund, the Bauhaus school and New Building shared and emphasized the significance of such non-metropolitan, and non-industrial backgrounds for a modern architecture. (2005). 207-211.
focus when he first immigrated to Palestine in 1919. Sharon describes his participation in the construction of a bridge, rural production facilities (a beehive, cowshed and a multi-use building), and temporary huts in his six years at the Kibbutz of Gan Shmuel as experiments in “first buildings”—referring not only to the specific buildings settlers erected first at Gan Shmuel but also to the idea of a set of buildings that preceded others in the establishment of any rural settlement.

Referring to these structures as “experiments” endowed them with a dual status that further substantiated such functionalist characteristics. Sharon’s decision to designate them as such stems from formalist and construction-related pedagogical strands at the Bauhaus. Furthermore, Sharon’s description of these structures as experiments stresses that they were not yet based on a disciplined design. Both aspects of the experiment (disciplinary and pre-disciplinary) granted these structures the status of primary, raw, and truthful materials.

Sharon refers to the principle of economy in formal and material design in his descriptions of pioneering experiments in first buildings preceding his Bauhaus training. He describes these experiments as anticipating his professionalization in the Bauhaus and the expertise he gained through his post-independence professional practice. As such,

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193 Chapter 2 reconstructs the Federation of Jewish Laborers’ ethos of functional simplicity in 20 Years of Building.
194 There, the use of experiments substantiated the Vorkurs’ claims regarding visual, physiological effects of pure design (initiated through the teachings of Kandinsky and Itten). Experiments also grounded a pedagogy stressing learning by doing, through hands-on and in-situ experiences in construction, first initiated by Gropius in the collaborative construction of the Sommerfeld house (1920). In Marcel Franciscocono, Walter Gropius and the Creation of the Bauhaus in Weimar, the Ideals and Artistic Theories of its Founding Years (Urbana: University of Illinois Press, 1971). This second meaning of experiments at the Bauhaus was later integrated into the curriculum under Meyer’s direction. These two meanings of design education as experimental practice were more broadly rooted in late nineteenth century German educational reform and anti-idealist aesthetics. Çelik, Zeynep. Kinaesthetic Impulses: Aesthetic Experience, Bodily Knowledge, and Pedagogical Practices in Germany, 1871-1918 (MIT: Dissertation, 2007), 31-38.
195 Sharon, 15-23.
these descriptions assigned primary functions (also designated as first buildings) a role in the formation of architectural knowledge. By extension, the descriptions in *Kibbutz + Bauhaus* staged the co-op experiments in territorial development as the ideal pre-history of his subsequent thinking on modernist design. The next section will contextualize the ways in which simple economic functions were set in a chronological and retrospective narrative that connected and transferred knowledge between institutions.

### 3.2.3. Imaging and Writing an Institutional Geography of Functionalism

Sharon revised his notion of simple functions through an institutional geography that encompassed multiple sites. The plus sign in the book’s title suggested this multi-sited discourse by conveying a practice ("an Architect’s Way") that resulted from the amalgam of three institutional cultures and locales. It connected *Kibbutz + Bauhaus* with a third locale that was represented through the emblematic image of the Judea desert (Figure 3.12). The image stood for the emerging nation-state.\(^{196}\)

The tripartite institutional scheme evident on the cover develops further through the book’s narrative and chapter division (Figure 3.13). The narrative opens with Sharon’s immigration and settlement in the Kibbutz of Gan Shmuel.\(^{197}\) His years at the

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\(^{196}\) This framing of the architect as a typical and non individuated agent supports Zvi Efrat’s emphasis on Sharon as an agent of the state’s large-scale standardization, in Efrat, ibid. However, *Kibbutz + Bauhaus* provides a more nuanced understanding of individual agency. Efrat’s analysis of the book focused on the exchanges between Sharon’s years in the collective of Gan Shmuel, the Bauhaus years and practice in Tel Aviv, and kibbutz and state planning, specifically as his design of new towns housing exemplifies. see Zvi Efrat. (Efrat and Kovalski’s firm web site: Files: Bauhaus Global: “Kibbutz + Bauhaus: Modernism and Zionism as reflected in the Lifework of Arieh Sharon.” http://efrat-kowalsky.co.il/files/kb.pdf retrieved on Nov. 2nd 2016. This chapter further reconstructs the implications such institutional relations had on Sharon’s disciplinary vocabulary and the ways in which these relations forged his mature architectural terminology.

\(^{197}\) This was in line with Sharon’s direct self-positioning in a pioneer story of revival and the “blossoming of the desert”; see Ayala Levin, ibid, 55. The narrative thus omits the year Sharon studied architecture at the Technical school of Brno and his participation prior to his immigration to Palestine in the *Ha shomer Ha’atzair* collective in Czechoslovakia that was formed, according to the architect’s daughter, mostly of a group of Jewish bourgeois youth. Sharon’s father owned a brick factory in Galicia and the Ha’shomer Ha’atzair group with which he had immigrated shared a similar economic background, which translated into some of the positions they occupied in
Bauhaus in Dessau, 1927–1931 follow, and then his return to Palestine in the 1930s. Following this he worked for the Federation of Jewish Laborers and in collaboration with the Jewish circle of architects in Tel Aviv. Sharon describes kibbutz planning more broadly for the Ha’shommer Ha’tzair movement of which Kibbutz of Gan Shmuel was a part during the years of economic recession following the 1936 Arab revolt in Palestine. In 1948 he began to undertake national planning for developing countries and throughout Israel in partnership with the architect Benjamin Eidelsohn until 1964 and with his son Eldar Sharon from 1965 until his death in 1984. Their work primarily focused on programs such as hospitals, university campuses and on co-op administrative headquarters.

This narrative depicted Sharon’s functionalist approach to design as institutionally molded. This depiction, which was neither explicit nor systematic, ascribed special influence to the kibbutz, the Bauhaus school of architecture, the Federation’s arsenal of co-op associations, and Israeli national and international development agencies.

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the Federation of Jewish Laborers (Ha’histadrut) directive boards (Yael Aloni interview, November 2016). See Chapter 1 in this dissertation. Sharon mentions his early studies at the Brno school in an earlier biographical note he presented for the Rokach engineering award in 1957. In Rokach Awards Collection folders 29-125, Tel Aviv Municipality Archive.

198 For a critical perspective over this moment see Nitzan-Shiftan, (2004).

199 Sharon’s work through these partnerships and locales was not exclusive but overlapping and mutually informative. For instance, he formed his partnership with Eidelsohn when he was recruited to direct the first national plan at the Ministry of Housing. Similarly, based on his experience as director of the first national planning department, Charles Abrams and Jacqueline Tyrwhitt invited him to participate in the 1953 UN New Delhi Regional Planning Seminar. This invitation also led to his engagement in planning and expertise for development. In Yael Aloni, private collection, UN Seminars folder.

200 Each of these designations stood de facto for a heterogeneous institutional complex, identity, and history. The term kibbutz as used in the book’s title refers to Jewish-Israeli collectives in general. The chapters on Gan Shmuel and kibbutz planning use this term in reference to Ha’shommer Ha’tzair cooperative movement. In the context of the Federation sub-cooperatives, Sharon received commissions in particular from the Workers’ Bank, the Yachin Hakal Citrus Cooperative and from the Agricultural Union Cooperative (see discussion in chapter 4). He received commissions based in development planning and technical aid from the Office for International Cooperation in the Ministry of Foreign Affairs and from the Rechovot Center for the Studies of Development, a Jewish Agency research center founded in 1960 for regional surveys and planning in Israeli and Third World countries (discussed in chapter 4 and in the section on Yalan in this chapter).
specifically, the book delineates the institutional influence on Sharon’s design vocabulary as deriving from two sources: the connection between the Kibbutz and the Bauhaus and the connection between pre- and post-independence professional output. The second connection occurred, between the amalgam of the Kibbutz and the Bauhaus (the result of the first connection) and Sharon’s experience working for the Israeli state and other developing countries after Israeli independence.

*Kibbutz + Bauhaus* established this second connection through the gradual introduction of a terminology of comprehensive planning and design. This new terminology allowed Sharon to describe his post-independence designs as exhibiting an economy of simple buildings with civic and regional implications. The understanding that the economy of simple functions affected his notion of regional related qualities of construction pervaded the chapters devoted to Sharon’s experience preceding independence (in the Kibbutz of Gan Shmuel, the Bauhaus, and kibbutz planning); the chapters exploring his designs and projects after Israeli independence address simple and economic functions and their scalar, regional implications through terms related to a model of “comprehensive planning and design.” These terms included: “thorough survey,” “civic complex,” “comprehensive civic complex,” “first stages of development,” and “flexible development.”

The term “comprehensive” appears often in *Kibbutz + Bauhaus*. In line with its usage by Hashimshoni in his essay “Architecture,” the term frequently refers in Sharon’s book to large-scale commissions that he received during the years after independence:

The growing urban expansion, as a result of Israel’s population being tripled during the first ten years of independence, stimulated great building activities, especially in housing. During this decade new neighborhoods, hospitals, and
universities were planned, many of them forming comprehensive, architectural ensembles. (Italics added.)

The three central designs described under these terms, in the consecutive chapters on hospitals and universities in Israel and on planning in developing countries, are the Technion campus forum, Haifa (1958), the Soroka Pavillon Hospital, Be’er Sheva (1959), and the Ife University Campus, Nigeria (1963) (Figures, 3.9, 3.14, 3.15).

Moreover, as Sharon’s discussion of the Beer Sheva Pavillon Hospital states, “comprehensive” designates a rigorous survey and analysis preceding the design of these kinds of large-scale programmatic ensembles:

After the War of Independence, social and economic conditions changed a great deal in Israel, and so did the needs of the newly created State. The scale and scope of new projects expanded immensely. The planning of large hospitals and university centers called for a more thorough study and survey of the programmatic aspects: functional, professional, and psychological. More than ever I was convinced that some clear and basic principles had to be adopted in our future architectural work. There was our first approach to design; I was convinced we had to strive to design in a straight, modest, and simple way, which is paradoxically the most intricate and difficult of methods. Our basic assumption was that we should develop the design of a public building, hospital, university, in a logical sequence, according to the project’s elements: entrance, lobby, passages leading to the different functional spheres of the buildings—both horizontally and vertically; if possible, we had to interrupt this design sequence by open spaces, patios and courtyards, and to widen the exteriors by terraces and loggias, thus integrating indoor and outdoor spaces. (Italics added.)

These two senses of the term comprehensive (large-scale composition and preliminary survey) designate for Sharon what he argues was the design approach he and Eidelsohn

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201 Kibbutz + Bauhaus, 97. For Avia Ha’ashimshoni’s introduction of the terminology of “comprehensive planning and design” to Israeli architecture see chapter 2. Sharon also uses the term in a similar way in his description of the Trade Union school Hannes Meyer designed. As discussed in later sections of this chapter, this was a more anachronistic usage, projecting backwards Sharon’s mature professional terminology forged after independence: “It was planned as a comprehensive ensemble of building programs, groups — teacher’s dormitories, common halls, gymnasium, and classrooms all following, in a staggered sequence, the natural lines of the site and fitting into the beautiful landscape.”

202 The term also refers to hospitals in developing countries in a more theoretical model.

would take after independence “our first approach to design.” Originating, as he wrote, from the rushed nature and scope of state development during the first decade after independence, this approach communicated Sharon’s understanding that nation-building shaped his architectural signature.

More particularly, the ‘first’ approach to design mediated two conceptual frameworks in the book. Sharon’s use of the term comprehensive is inscribed, on the one hand, in the post-war revisions of functionalism as formulated in the CIAM 1951 meeting at Huddesdon entitled “the Heart of the City.” This meeting was influenced by Patrick Geddes’ thinking on regional planning. On the other hand, Sharon’s statist developmental credo reused terminology originating in Hannes Meyer’s teaching at the Bauhaus and previously (in terms of the book’s order of presentation) applied to pre-independence co-op environments. This articulation allows the terminology of comprehensive design to resonate with the functionalist values of kibbutz and Bauhaus practices. It also consists of formulating a critique of early national planning development (in which Sharon was actively involved) and functionalist thinking. As such, design comprehensiveness communicates a revised notion of inter-war functionalism.

The following discussion of the Beer Sheva hospital clarifies the implications of comprehensive analysis and synthesis not only in revising Sharon’s Bauhaus vocabulary, but also in formulating a critique of his experiences as director of the Department of National Planning (operating until 1953 under the Ministry of Housing and Labour). Commenting on Israeli new towns, 21 one of which were outlined in Sharon’s first national plan (1953), he notes:

204 The book first claims the need for a coherent and “basic, organic and comprehensive urban design” at the end of the chapter on his work in Tel Aviv, 48-9.
But housing isn’t enough to make a new town—people must have work. In this regard there were great difficulties. We had to admit that the initial development stage is always hard and difficult. Only after two years the Government agencies succeeded in inducing some industrialists to go to the new regional towns, by grants, loans, tax concessions, and providing cheap land…. We went on trying to make the public “town-planning-minded” with more or less success. The trouble was that the community leaders were totally absorbed in emergencies and short-range problems and few, if any, were aware of the importance of urban development, planning and architecture…once we tried to stimulate to contact and stimulate the interest of a small group of Parliamentary members, but without any result. (Figure 3.8)

Sharon’s critique of the segregation of housing from complementary work, in the making of new towns, alludes to Patrick Geddes’s regional planning trinity of work, place, and people.\textsuperscript{205} This fits the larger context of this statement as to his failure to promote, in front of state administrators, more holistic, speculative approaches to urban planning based on Lewis Mumford’s thinking.

Sharon describes the comprehensive design approach and civic complex as a remedy against such deficiency:

I think that the contribution of a well-functioning hospital to the development of a new town deserves special mention. Nearly all new towns — in Israel and elsewhere— undergo the “woes of childbirth” in their social, economic, and culture development. In the new town of Beersheba, the initial development crisis was overcome by the building of the new hospital. The sudden influx and cultural impact of dozens of doctors, scientists, and medical workers was the critical turning-point in the new town’s development. (Figure 3.9)

This quote further substantiates the regional and landscape effects of the Beer Sheva hospital that his first description of his approach to design had identified. This “well functioning complex,” Sharon suggests, had positive social, cultural, and economic effects.

Sharon’s description of the Beer Sheva hospital grounded his revision of his

\textsuperscript{205} The CIAM 9 discussed similar ideas in Aix en Provence under the notion of the human habitat, in Eric Mumford, (2000), 225-238.
Bauhaus vocabulary in two strands of post-war critics of functionalism. On the one hand, his discussion of it as a comprehensive civic complex invoked architecture’s social, civic, and cultural dimension. This dimension had been identified as the fifth function of architecture at the CIAM meeting *The Heart of the City* at Hoddesdon (1951), a symptom of the influence of Geddes’s ideas in CIAM discussions at that point. Asserting a need for pedestrian civic cores, this meeting challenged and complemented the four functions of housing, work, transportation, and leisure. The latter, four-function model had become a central international zoning model in reconstruction and new towns projects after World War II.

On the other hand, Sharon framed the civic complex in developmental terms, as a response to the crisis of initial development in Israel, to the economic, social, and cultural “woes of childbirth.” He argued that it defined a turning point, capable of inflecting negative development dynamics that the zoning model of the functional city had generated. These accounts posited the civic complex as an element of comprehensive and regional planning for economic, social, and physical development agendas.

The currency Geddes’s thinking gained in the aftermath of World War II was

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207 For the four functions model, see the *Charter of Athens* (New York: Grossman Publishers, 1973 [1933]). As architectural historian Joan Ockman has shown, Siegfried Giedion’s “Nine Points on Monumentality,” first presented at the conference organized by German art historian Paul Zucker at the Princeton School of Architecture (1944) was a key document in the claims for a fifth function. Joan Ockman and Edward Eigen, *ibid*, 27. See also Erik Mumford on Josep Lluis Sert’s contribution to CIAM’s post-World War II discourse in *ibid*. Van den Broek and Jan Bakema’s Lijnbahn project in Rotterdam, 1948-1953, was probably the key emblem of a civic core in the post-war era. For Sharon, describing his approach in terms of civic cores was to a large extent a rhetorical argument, as far as in distinction with this new thinking Sharon’s examples of designed civic complexes were not based on a multi-use definition of program. Architect Ram Karmi’s design for the *Negev Complex* was the major Israeli project to be claimed in these terms and it gained significant visibility in the local practice in the 1960s.

208 Sharon’s expression seems to be translated from the Hebrew *hevlei leida*, referring both to the literal difficulties in giving birth and to the struggles related to the fulfillment of an idea or a vision.
instrumental here. The Anglo-Greek architect Jacqueline Tyrwhitt was a follower of Geddes and her influence on both the CIAM in the last decade of the institution’s operation (1949-1959) and on the physical planning agendas in development projects marshaled through institutions such as the World Bank and the UN Technical Assistance Program amplified this influence. Sharon’s engagement in this discourse and practice was inscribed in a larger phenomenon of export of Israeli planning expertise for Third World.

In fact, Sharon was already using developmental vocabulary in his 1951 book *Physical Planning in Israel*. This lexicon was central to this second lens of revision of inter-war functionalism, through his work as national planner (1949-1953). In *Physical Planning in Israel*, he coupled the zoning approach in the planning of new towns with a terminology of regional planning influenced by Patrick Geddes’ work. However, he further claimed development and regionalist terminology to support a holistic stance on planning and on functionalism beginning with a lecture he gave at the New Delhi UN Regional Planning Seminar in 1953 that he revised following the comments of Jacqueline Tyrwhitt. Together with the American planner Charles Abrams, a UN consultant in its

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211 Sharon, *Physical Planning in Israel* (in Hebrew) (Jerusalem: Hamaadpis Ha-memashalti, 1951). The history of Israeli new towns and of Sharon’s contribution to this history is behind the scope of this dissertation.

212 Sharon uses the word comprehensive as what couples “physical, economic and social planning” in his paper for the UN seminar. It is followed by a long citation on the trinity of work, place and people invoking Patrick Geddes’s thinking. In “Regional Land Use and Landscape—paper presented to the UN Seminar on Housing and
Housing, Building, and Planning Department, Tyrwhitt organized the seminar and invited Sharon to present in it. The seminar introduced Sharon to the international development planners’ arena, and to other prominent figures in it, in particular the Greek planner Constantinos Doxiadis, who also participated in the 1953 seminar.\footnote{Sharon’s acquaintance with Doxiadis led to his participation in the traveling Delos seminar on human settlement (1968), which Doxiadis organized. Doxiadis Delos’s seminar is discussed in Panayiota Pyla, “Planetary Home and Garden: Ekistics and Environmental-Developmental Politics,” \textit{Grey Room} 36, Summer 2009, 6-35.}

As Sharon claimed at the opening of the chapter on his work with Eidelsohn after Israeli independence, it was to a large extent the circle of UN development experts who inspired his revised vocabulary:

I had become convinced that only a \textit{comprehensive, environmental planning approach could serve as a sound and organic basis for our future architectural activities}. My architectural ideas were also greatly influenced by my regional planning studies in South East Asia and a six-week visit to Japan…. (Italics added.)\footnote{Sharon’s acquaintance with Doxiadis led to his participation in the traveling Delos seminar on human settlement (1968), which Doxiadis organized. Doxiadis Delos’s seminar is discussed in Panayiota Pyla, “Planetary Home and Garden: Ekistics and Environmental-Developmental Politics,” \textit{Grey Room} 36, Summer 2009, 6-35.}

This purview grounded \textit{Kibbutz + Bauhaus}’s critical perspective on Sharon’s first experiences in state and new towns planning. Through this purview Sharon reframed simple functions in developmental terms, as primary measures in regional development. Such reframing echoed the ways in which modernism was formulated in the pre-state period (see discussion in chapter 2). However it also disclosed the influence of a more specialized planning discourse from the post-war period. Participating in this discourse,
Sharon defined an economy of simple design, as an issue of developmental potency. He used this definition to ascribe character and expression to initial and optimal conditions for territorial development.

3.2.4. Simple Functions as Deficient and Ideal Economic Bare Minimum

Returning to the book’s institutionally laden vocabulary, the roles simple, economic, and primary functions played in Sharon’s description of the first rural building and the civic complex testified to the ways these functionalist notions signified both an ideal and a challenge. Using lenses based on Bauhaus and development planning, Sharon emphasized an understanding of functions as primary economic requirements in the context of territorial development. His critical comment on the implementation of housing as a zoned function in Israeli new towns described this first phase as sterile, lacking in capacity to stimulate new territorial development. It defined a first stage of development that was based on a deficient economic bare minimum. Instead, Sharon used the terms first buildings and the civic comprehensive complex to suggest a sufficient and stimulating primary development.

The kibbutz and Bauhaus environments invoked the capacity of the simple function to conjure an ideal representation of an architectural program through the example of first buildings. These by extension also granted an optimal and hence effective framework for newly developed communities, be those of Jewish co-op society or the Bauhaus-designed co-op facilities. Bruno Zevi’s Preface provided the most concise and poetic formulation of this idea:

Israel is an almost unique phenomenon in this century. Even the shack had a utopian flavor for the emigrants from the ghettos. Aesthetics were nourished by ethics and founded on it. A building, before being good or bad, was great just because it existed. No
matter how it was designed, its generation drive was a messianic yearning. In the initial
decades of Sharon’s curriculum, a schism between content and image could not be
conceived: the daily content was poetry, life was so pregnant with significance that the
message did not require any expressive filter.  

The preface was formulated in the pioneering spirit of the 1944 Federation of Jewish
Workers’ *20 Years of Building* publication and its idealization of first settlement
buildings. As discussed in Chapter 2, this publication concluded with a claim regarding
the edifying role of simple shacks and tents. In Zevi’s Preface, the shack, as a primary
function, denoted what appeared to precede a disciplined act of design. The simple fact of
its existence gave it meaning and legitimacy. Zevi used this figure as a metonym standing
for Sharon’s pre-independence practice in which, by extension, no cultural or
representational schism occurred between content and image (or between ethics and
aesthetics). Close to Hannes Meyer’s understanding of building as devoid of superfluous
contents, Zevi depicted the truthfulness of basic functions in terms of their effective
representation of the establishment of settlement. Thus the shack stood for an
idealization of the economic bare minimum in initial territorial development.

Sharon’s discussion of his early experiences in the kibbutz of Gan Shmuel, and in
kibbutz planning more broadly, exemplify a range of relations to what he understood to
be the result of purely economic considerations. At times, these comments conjure a dry
descriptive tone. For instance, describing improvements in rural production facilities in
the chapter on kibbutz planning and social development, Sharon notes: “The farm

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216 Sharon, 6.
217 *20 Years of Building*. Essay by the architect engineer M. Reiner, discussed in chapter 2.
218 See also Sharon’s description of how looking at the kibbutz rural production facilities gave him a simple urge
to build: “On the following morning, going over the building shacks, stables and houses, examining and studying
the newly erected farm and residential structures, I was strongly stirred by the urge to do something, to build, to
contribute my share to my old-young kibbutz. There was an urbanite need for an additional floor to be built over
an existing house” (46). These descriptions communicate the creed of functionalism, understood as a “direct
expression” of inner contents without any mediation.
buildings underwent many changes and improvements as a result of economy advances. The cowsheds, for example, are today well-equipped with elliptical milking platforms. The poultry runs have grown from small sheds into multi-story ‘egg factories’ lit day and night, in order to double and triple eggs production.”

In contrast with Bruno Zevi’s comment, this was a procedural description. It not only framed the calculation regarding the kibbutz’s economic functions as indifferent to questions of design and form making, but also as devoid of any particular expression.

However, in line with Zevi, the kibbutz chapters also described basic economic functions in the Jewish pioneering environment as ideal representations of preliminary stages of territorial development. Economic rationale was at the center of the geometric simplicity of beehives’ structure, the rejection of Sharon’s complex and costly design for a cowshed, and the resourcefulness of a rushed construction of a bridge in stone and concrete, which was reinforced with elements stolen from a railroad near the site. As noted above, Sharon refers to these designs as experiments in first buildings: “The first structures that could be termed buildings were the stables, cowsheds, beehives, and poultry runs” (Figures 3.4, 3.5, and 3.6). The farm buildings and temporary dwelling huts were the initial acts of material assemblage corresponding to the minimal and optimal requirements of land development.

Sharon’s emphasis on their classificatory role (“first to be termed”) suggested in addition that “first” signified an ontological dimension as well as temporal precedence. Using the notion of building, Sharon retrospectively projected on these construction

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219 Sharon, 62.
220 ibid
221 This description appears on the cover page and image album of the chapter on his years at the kibbutz of Gan Shmuel. Sharon. 23.
experiences the term Bauhaus professors and students used to define a revised domain of architectural intervention. He suggested in fact the environment of the kibbutz and of pioneering activity as the primary site for such a conceptual delineation. As such, these structures and environment designated the conditions of possibility of language and attention defining the field of practice of the modern architect.

The critique of the sterility of housing without employment in Israeli new towns should be read in the context of Sharon’s designation of rural production facilities and temporary huts as first buildings. It is this deficiency in new towns’ housing that the civic complex as a developmental measure seeks to remedy. Introducing the comprehensive civic complex, through the example of the Beer Sheva hospital, argued for the need of programmatic, spatial, and modular re-articulation of functions. Sharon’s description of the complex reused the terminology of simple and economic solutions, both for the discussion of its parts and the whole. It communicated his understanding of this kind of institution (and of himself accordingly) as the bearer, after independence, of design and cultural values attributed to the kibbutz and Bauhaus amalgam (which dates prior to independence and appears earlier in the book).²²²

Sharon’s discussion of his and Eidelsohn’s risky response to the Ife campus project in Nigeria resembled their response to the hospital complex. They described a rationale concerning what defines sufficient preliminary functions of territorial development. In so doing they ignored the brief’s requirement for a first phase of a temporary huts-based campus plan. Instead, they immediately presented the client with a

²²² Chapter 2 has shown how this displacement of rural simplicity to the metropolitan realm was characteristic of Israeli architectural writings on civic monuments during the 1950s and 1960s.
fully designed and physically modeled final project. In this they expressed a belief that the clients’ definition of the campus’s provisional stage of development was deficient; this belief served Sharon’s aim to present the finalized design proposal as an optimal development phase, substituting the one that the commission has stipulated. As with the critique of housing, they assumed that this provisional stage consisted of an economic bare minimum that was devoid of representational and developmental value.

In the case of Ife campus and in relation to Israeli new towns, Sharon and Eidelsohn’s comprehensive approach stood for the modern design’s ability to devise an accomplished institutional representation. This representation evokes the simplicity of first buildings (and by extension the kibbutz and the Bauhaus amalgam) through the post-independence institution, to claim a unique developmental approach that is both basic and comprehensive.

Moreover, Sharon’s functionalist-developmental vocabulary (based on inter-war and post-World War II approaches) with which he asserted the civic complex representation of a bare minimum, supported his claim to being a cultural and institutional mediator. According to this assertion, the civic complex, as much as Sharon the architect, translated, displaced and preserved the values of optimal and ideal primary functions. This raises the issue of his understanding of professional expertise, the subject

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"According to the program, we started to prepare the first master plan. Then the Government decided suddenly to delay our work on the university: instead it decided to set up a provisional campus of wooden pavilions, to be erected in Ibadan, until the plans and buildings for Ife would be completed. We made up our minds to take a chance and to prepare parallel to the sketches for the provisional wooden campus—a detailed layout for the Ife university site, as well as preliminary plans for the faculties of humanities, the halls of residence, the library and secretariat. We tried to convince them that they would lose notice by erecting the Ife campus instead of the wooden barracks in Ibadan. The premier became very enthusiastic and asked us to present the plans on the following day. To our surprise, the decision to set up a provisional campus was never mentioned again, and our plans for the detailed campus layouts and buildings were enthusiastically accepted, it was a useful lesson in how to inflect clients and politicians by presenting attractive plans and models." (127).
of the next section.

### 3.2.5. Monumentalizing First Buildings – Experts in Experiments

Sharon’s claims regarding professional knowledge rely on an analogy that the book draws between two conceptual spectrums. The first is the spectrum ranging between first buildings and comprehensive civic ensembles or complexes. The second is the spectrum between experiments and expertise. Whereas Sharon describes the moments preceding independence and his Bauhaus training in terms of experiments with first buildings, following independence he describes his practice in terms of the challenges of expertise in comprehensive planning and design. Thus, *Kibbutz + Bauhaus* proposes an analogy between the two spectrums. First buildings and experiments characterize Sharon’s pre-professional experiences. They lead to, substantiate, and are sublimated into his mature practice, when he claims to have the expertise to design a comprehensive civic complex.

The full list of Sharon’s early experiments includes: the construction of beehives (“my first lesson in architecture”), participation in road making and swamp clearing, the design of a laundry facility, the bridge, a grain silo, and a multi-purpose structure. This last, which he described as “the first real building,” served as stable, cowshed, and dairy production facility (Figure 3.5). Sharon also described kibbutz planning through the common trope of a design without precedents. Requiring experimentation with its optimal configuration, size, and distribution suggests that this, too, represented an experiment with first buildings.\(^{224}\)

\(^{224}\) Sharon’s discussion of the resulting plan in terms of an efficient minimum reflects similar representations: “This population (referring to the 400 persons that the *Ha’shomar Ha’tazir* movement defined in the 1940s as a
Originating in Sharon’s socialization through the *Ha’shomer Hatzair* collective of Gan-Shmuel, his experiments reflect his identification with the pioneer’s (halutz) straightforward problem solving and learning-as-you-go approach. They also, as discussed above, resonate with the Bauhaus vocabulary of basic design and the first year preliminary course experimentation with form, materials, techniques, and programmatic contents.

In Sharon’s descriptions of the bridge and beehive, he assigns the simple and economic status of an unmediated nature, anonymous design preceding architectural knowledge: “On the next day, Jewish and Arab farmers from the area were already using the bridge and nobody asked who had built it. They all behaved as if it was always been there.” Similarly, he says that the bees’ “construction methods” fascinated him. He described the insects as “among nature’s most successful architects and engineers.” He concludes: “From the bees one could learn how to design, to organize, and to build so as to combine function and form in a most economical way” (Figure 3.4).

The bridge and the beehive evoke semi-natural and resourceful configuration—an artifice imbued with method and economic design. As the book’s opening sentence suggests (“My first lesson in architecture was given to me by a bee”), the beehive’s economy predates and anticipates the discipline Sharon would later acquire through the right size for a kibbutz. m.h.) is regarded as an efficient minimum for a productive economy and a social optimum for a culturally and socially flourishing collective ambiance.” Sharon. Chapter 1.

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225 “Plans for the laundry, water-tower and other simple structures were drawn up by me, applying principles of ‘do it yourself’ and ‘learn as you earn,’” and later in the same chapter: “Common sense and practical experience were my guide”. Sharon. 16-17.

226 “Honeycombs are composed of hexagons, which provide both living-space for the bees and storage chambers for their product. The choice of hexagons was the correct one. Presumably considered and rejected by the bees, might have been cubes or circles. But cubes although economical in the use of building material, would have had the advantage of sharp corners, hard for the bees to negotiate because of their wings. A composition of circles although economical and comfortable, like silos, would have been non-functional because of the left-over, unused interspaces. The solution of hexagons adopted by the bees was the most spacious, logical, comfortable, and economic one, using beewax as the basic building material” [Italics added] (14).
Bauhaus. The emphasis on the economy of these primary experiments in colonization serves both to naturalize and acculturate Sharon’s modernist and post independence architectural knowledge. It implies that a pseudo-natural wisdom regarding an ideal economy of means permeates Sharon’s various experiments in first buildings.

Experiments indeed conveyed a conjunction between the Ha’shomer Hatzair pioneer experiences, the natural or semi-natural appearance of construction, and the category of building, Meyer’s central emblem of functionalist design (Figures 3.10 and 3.11). Experiments in first buildings reflected an anachronistic projection of categories that Sharon had acquired through the Bauhaus education. They were also the means of retrospectively grounding the notion of building in the pre-professional environment of Jewish pioneering. Co-op experiments defined as a semi-natural history for the Bauhaus years and the practice to follow forged Sharon’s disciplinary categories and expertise through the foundational scene of the Gan Shmuel collective.

Sharon’s naturalization of functionalist and developmental agendas was also a way of ascribing meaning to the co-op building experiments. He stressed that experiments operated as pre-professional initiators of his architectural career (first lessons). Through them he accumulated expertise for which the Bauhaus accredited him in various ways. As such, Sharon’s descriptions of his experiments in conditions of economic bare minimum were part of a teleological narrative that gave them particular significance. They led to and informed his mature, comprehensive design.

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227 As Sharon notes, his experiments in Gan Shmuel, and the beehive construction more specifically, led to easy acceptance into the first school year as well as course credits and to Meyer’s personal respect, leading to authoritative roles in his firm. Sharon. 28-31.
3.2.6. Professional Expertise – between Co-ops and the State

The notion of comprehensive denoted the telos of an established design profession in various ways. It referred to the synthesis of disciplines in the context of the urban or regional survey. It described the combination of functions in the context of a simple, yet holistic civic-institutional complex. Moreover, it signified a balanced analytic and synthetic professional approach and, therefore, Sharon’s claim to be a leader in issues of national and urban planning.

The book’s concluding sections (“Urban Design” and “The Architect’s Call,”) commented more directly on professional knowledge by qualifying an expert-based design and planning culture (16). Sharon’s comments therein nuanced his understanding of comprehensiveness. With the intent of challenging architects’ and planning agencies’ mono-functional bracketing of design problems, his definition of the architect’s task opened with an allusion to the importance of a comprehensive approach to planning:

The metropolis grew into megalopolis, with huge slums, traffic congestion, and air and water pollution. Planning—if any—urban and regional—had only a marginal influence on the rapid rate of urban growth, in spite of the growing awareness of town-planners, economists, architects, and even politicians that only basic comprehensive planning could find remedies for this urban confusion. We architects must admit that our participation in town-planning and civic design has been minimal.\footnote{Sharon, 188.}

The comment continued, however, with a charge against the technocratic approach (dubbed “scientific”) that came to prevail in the assemblage of information in planning projects:

*Most architects devoted themselves to the design problem of single houses, or, at best, of public building, having only a marginal influence on our cities’ character and life.* Many of us forget the famous saying of Palladio, still valid today, that “a house is a tiny city, and a city is a large house,” which simply meant that the architectural design process and analytical approach are of equal importance for all projects, large or small, from a tiny house to a large city. Today planning is left
to “scientific” planners, from the first phase of surveys—economic, social, ecological, demographic—to the last phase, which concentrates mostly on traffic and transport problems. The mythos of a quasi-scientific approach has replaced the architectural spirit. The resulting master plans prepared by so many experts, with little, if any, architectural participation, are mostly traffic communication plans with huge roads, intersections and clover-cleaves. Instead of serving the people by creating lively and imaginative environments, they only try to solve the technicalities of human life—transport, traffic, sewage, and waste removal. (Italics added.)

According to Sharon, traffic experts gained dominance in such large scale planning projects as representatives of a scientific approach.229 Sharon lamented the way in which a comprehensive synthesis of knowledge was demoted to a concern with a bare-minimum (“technicalities of human life”). He argued that it failed to imbue functions, and the solutions to technical concerns, with imagination and humanity. Sharon’s image of the civic ensemble suggests that a thorough yet more intuitively holistic survey and a programmatic, spatial articulation of units of different kinds were needed to create a sense of character and life, which were ultimately the task and vocation of the architect.

Sharon’s comments owed much to post-war critiques of bureaucracy. These included Siegfried Giedion’s and Lewis Mumford’s descriptions of an expert-culture divide between thought (i.e., science) and emotion (i.e., art).230 By articulating this critique relative to his notion of comprehensive design, Sharon provided another

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229 “Today planning is left to ‘scientific’ planners, from the first phase of surveys—economic, social, ecological, demographic—to the last phase, which concentrates mostly on traffic and transport problems. The mythos of a quasi-scientific approach has replaced the architectural spirit”. Ibid.

perspective as to the ways he charged this idea, and by extension the notion of a functional economic configuration, with rhetorical or expressive qualities. For Sharon, comprehensive design maintained programmatic units, simple, legible yet interconnected. It formed spatially rich and iconographic civic ensembles through them. It more precisely translated Sharon’s interwar notions of function and experimentation with first buildings (grounded through co-op environment and the Bauhaus) into an alternative and hybrid model of comprehensive development expertise. In this he re-articulated the claim to legitimacy of an iconographic and idiosyncratic architectural judgment implicit in the book’s cover and in the sections on first buildings.

The various relations to functions and the economic bare-minimum discussed above — ranging between its idealization and critique — expressed the professional expertise of the designer in his capacity to define a fitting architectural expression. The relations exemplify the capacity to form a rational yet intuitive judgment as to the representational and developmental potency of the simple and optimal bare minimum.

3.2.7. Institutional Expertise in Simple Comprehensive Design

This section will consider these interrelated questions: In the name of what institution did Sharon claim functions, initial stages, and bare minimum? What configuration of institutional cultures and locales informed his developmental functionalist revision and its related expertise? More precisely, what distinct roles did agricultural co-ops, the state, and development agencies play in this configuration?

The judgments the book formulates regarding optimal functions in the co-op environments, Bauhaus, the nation-state, and developing countries informed one another.
The strict economy of collective settlement planning and of rural production facilities substantiated the notions of primary function and first buildings. By extension, Sharon’s model of comprehensive design carries the immediacy of these co-op experiments. This elevation from the co-op environment to the stakes of state planning also marked the beginnings of Sharon’s involvement in development-aid institutions. In turn, the entire book reflects developmental language, coded through terms such as the module, modular flexibility, initial stage of development, and phases of growth. It served the mature Sharon, who had been socialized into this disciplinary professional culture of development beginning in the mid-1950s, to criticize the less theoretically informed moment of economic driven state-development.

More than any other precedent, the beehive construction served as a binding and naturalizing institutional and functional emblem throughout the book. Its economic simplicity was a primary gesture of communal development that crisscrossed the book’s various institutional collectives. It stressed continuity and facilitated transitions from one moment to another. The construction of the beehive positioned Sharon and the Gan Shmuel collective, as well as the Ha’shomer Ha’tzair movement more broadly, relative to a pre-human natural wisdom and environment. It allowed Sharon a smooth entry into the Bauhaus milieu. Sharon’s reference to his interest in the work of Ludwig Armbruster (1886-1973), a German zoologist and apiarist, further supports a natural co-op metaphor because of the latter’s claims that Jews have expertise in apiary production in Palestine dating back to the biblical period.231 As such, Sharon’s reference to his own experiments

231 Sharon, 28.
in beehive construction was a way of stating a retrieval of a pre-modern Jewish native status.\textsuperscript{232}

The book also emphasized the ways in which the beehive’s abstracted and truncated modular units aligned with the 1960s system design culture. More specifically, Sharon refers to the beehive geometry as anticipating the space-packaging variant of this culture that Alfred Neuman (1900-1968) theorized at the Technion. The latter’s practice was central in what is understood as a Sabra generation (\textit{Dor Tashach}) of practitioners and of Israeli Brutalism.\textsuperscript{233} Neuman’s approach was integrated into Sharon’s firm primarily through his 1965 association with his son Eldar, a disciple and one of Neuman’s first associates.\textsuperscript{234} As such, the beehive rebranded the Bauhaus and Kibbutz as institutional locales that anticipated the work of the next generation.\textsuperscript{235} The beehive-like composition became a shared wisdom and a connection between father and son. It thus

\textsuperscript{232} Armbruster made these claims in a 1920s essay entitled the “The Bible and the Bee.” Sharon discusses the influence of Armbruster’s work on his own beehive constructions in the chapters: “A Young Man’s Way in the Kibbutz” and “Bauhaus, Dessau, An Architectural Workshop, Berlin 1926-1931.” Julius Poesner (editor of the Tel Aviv circle of architectural journal \textit{Ha’bynian Bamizrach}, Building in the Orient) notes in his opening remarks to Sharon’s exhibition \textit{Kibbutz + Bauhaus} that he had close relations with Armbruster from the time of his return to Berlin after World War II. In Yael Aloni, private collection, \textit{Kibbutz + Bauhaus} folders. See also in Julius Poesner, \textit{Fast so Alt Wie das Jahrhundert}. (Basel: Neuausgabe, 1993). 75. Armbruster became known in the Jewish Palestinian apiary community through the work of his disciple Israel Robert Blum (~1898-1979), a Czech Jew who immigrated to Palestine in 1924. Blum discusses Armbruster’s ideas in his 1951 book \textit{The Man and the Bee} and in an article in \textit{Davar} (December 19, 1932). It is most likely through the latter’s propagation of his teacher’s ideas among the Jewish apiary community in Palestine beginning in the 1920s that Sharon, who worked as beekeeper at the Kibbutz of Gan Shmuel, became acquainted with Armbruster’s work, as he notes in the book. On Blum’s dissemination of Armbruster’s work in Palestine, see Tamar Novick, \textit{Milk and Honey, Technologies of Plenty in the Making of a Holy Land}. (PhD diss., University of Pennsylvania, 2014), 55-6.

\textsuperscript{233} In Nitzan-Shiftan (2002), ibid, and Nitzan-Shiftan (2009), ibid.

\textsuperscript{234} As chapter 2 argues, this practice was promoted and debated on the one hand relative to formal scientific argumentation based on natural analogies and the capacity to support construction standardization purviews. On the other hand, art curator Yona Fischer and architectural critic Aba Elhanani debated this reading. They argued that this argumentation represented a new generation of practitioners that had set itself apart from a generational exchange by positing itself in terms of a vanguard, formal and intuited creativity.

\textsuperscript{235} The emblem of the beehive played a major role in weaving the generational exchange depicted through the chapter. The terms of generation and architectural vanguards were central to the last chapter discussing his partnership with Eldar. They testify to Sharon’s interpretation of his professional path from an art-historical perspective. Sharon, 184-254.
stood for a broader professional and generational exchange (17 and 18). The beehive metaphor also resonated through Sharon’s descriptions of comprehensive civic ensembles. Stressing a potentially uninterrupted gridded system based on the addition of primary modular units also recalled the functionality of the beehive cells structure.

Zionist co-op institutions provided a range of opportunities to experiment in creating buildings prior to the acquisition of professional design knowledge. Sharon conceptualized these designs and aestheticized them through the Bauhaus’ diagrammatic, yet expressively organic functionalist credo. The state and development agencies prompted, in turn, a scalar revision and an understanding of the critical limits of the spectrum of primary gestures of development. These post-war and post-independence institutions, however, provided a telos for a professional functionalist expertise based on moderated practicality.

3.3. Emmanuel Yalan – Jewish Agency Practicality Beyond Rhetorics

Emmanuel Yalan published *The Design of Agricultural Settlement: Technological Aspects of Community Development* (1975, Figure 3.19) a year before Sharon published *Kibbutz + Bauhaus*. Yalan, like Sharon, was near the end of a prolific design and planning career for cooperative settlement management, conducted for two and a half decades under the Settlement Movement and the Jewish Agency.237 *The Design of*

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236 The connection formed through the beehive between Sharon’s Gan Shmuel experience (and the impact of Armbuster) and Eldar’s practice is also noticed by Julius Poesner’s opening statement at the first *Kibbutz + Bauhaus* exhibition in Berlin, 1976. Poesner emphasized the gridded, diagonal geometry of the beehive as a leitmotif: “And in the end, through Eldar’s mediation, the influence of Arieh’s first teachers was to be felt again: the bees. The museum in the memory of the flight of a small group of men from kibbutz Yad Mordechai during the War of Independence, and in the memory of the holocaust in Europe - has been planned as a hexagonal grid. This is how the bees built in Gan Shmuel - but there may also be some influence of Albers’s basic course at the Bauhaus.” In Yael Aloni, private collection, *Kibbutz + Bauhaus* folder 1.

237 See discussion in the Introduction to this dissertation.
Agricultural Settlement compiled and interpreted findings from the author’s previous publications on designs of rural production facilities and regional planning primarily for the Israeli rural cooperative sector, and more specifically the cooperative workers’ village movement. It discussed Yalan’s applied research on community and settlement development as an architectural expert.

Like Kibbutz + Bauhaus, Yalan’s book grounded Israeli modernist design culture in a dual engagement with the cooperative agricultural sector and state institutions. Nonetheless, the book communicated another translation of interwar New Building approaches into post-World War II comprehensive planning models. Through this translation, Yalan offered a unique representation of optimal economic functions. Notwithstanding the discrete institutional frameworks and architectural approaches captured in the two books, comparing Sharon’s writing with Yalan’s clarifies their diverse strategies.

History does not record whether Yalan and Sharon ever met although it seems likely. They had a number of things in common, however: They were architects in the same period and both were part of the group that first practiced New Building credos in Palestine. They held commissions for similar institutions. They also had responsibility, in the aftermath of independence, for similar scales of planning and architecture, and both combined building design with regional development under the state agendas of development planning.

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238 The book’s first part dealt with historical and contemporary settlement patterns, regional rural planning, and the cooperative frameworks in Israel. The second part moved in scale from regional survey and infrastructure implementation to Israeli settlements’ morphology to the family farmyard, ending with a section on “minority” village modernization and the Nahalal village re-planning. The third and last section was devoted to farm structures (rural production facilities, dubbed “farm buildings”).
Yalan was born in 1903 in the city of Nikolayev (Ukraine) to a religious family. His father was an activist in the Hovevei Zion movement. Yalan immigrated to Palestine at the age of 16 to study at the Gymnasium Hertzelia in Tel Aviv, following his elder brother. A talented draftsman, he enrolled in an architectural program at the Architectural Association (1922-1923) where he completed two terms. Under the directorship of Frank Yerbury, the school has not yet undergone its 1930s turn to New Building approaches. Classes included construction drawing, detailing, drawing and rendering of the architectural orders, and the study of drawing and historical precedents. The school led museum and in-situ visits to buildings, an approach informed by the idea of survey.239

Yalan then enrolled in architectural studies at the Hessische Baugewerkschule der Technischen Lehranstalten Offenbach am Main. He received his degree in 1926. Alongside more technical skills to which his diploma testifies, the school introduced him to the progressive modernist thought common among architects who collaborated on the planning of the New Frankfurt social housing project.240

At the end of the 1920s Yalan started collaborating with Yochanan Ratner, who would later become the second dean of the Technion, and they formed a partnership during the 1930s. The projects they created together took on a more strident line of

239 See Students’ Registrar Records, 1922/1923 and Curriculum Brochure, signed by Frank Yerubry, Architectural Association Archive. The reasons that led to Yalan’s departure from the AA and enrollment in the school in Offenbach am Maine are unknown. Yerubry’s pedagogy is known to have been formed by the idea of the in-situ building study and surveys, following Nordic traditions. The AA would turn towards a more progressive modernist pedagogical agenda under Howard Robertson’s directorship, after he replaced Yerubry in the late 1920s. On the school history, see the Architectural Association Archive (“AA History”), http://www.aaschool.ac.uk/AASCHOOL/LIBRARY/aahistory.php retrieved. Nov. 02. 2016.

240 His draftsmanship and survey skills, which were central to his practice for the Jewish Agency after independence, led to an invitation for him to serve on an archeological survey mission for the Harvard School of Archeology in Iraq. See letter of recommendation based on his work signed by the Harvard department director of the research team, 1928. Yael Ben Moshe, private collection.
modernism and functionalism than Ratner’s late 1920 works. Whereas his solo projects used stone and cladding, remnants of a classical vocabulary, their joint projects displayed a strict rendering of rectilinear masses in non-washed concrete with a light definition of construction elements such as window sills or roof acroteria toppings in thin stone or metallic plates.

This collaboration might have resulted from the two architects’ participation both in circles related to the Federation of Jewish Workers and to the paramilitary organization Ha-agana. It also led the Technion to hire Yalan to teach in 1936. In this context, Yalan became familiar with the work of the Russian Jewish architect Alexander Klein (1979-1961) and his functionalist diagrammatic and climatic reflection of minimum dwelling organization (Existenzminimum). Yalan and Ratner severed their partnership towards the end of the 1940s. Following Yalan’s winning entry for a regional plan for the Ta’anach region (Jezreel Valley) in 1950, his career took on a sharp turn with respect to matters of village planning and rural building and production facilities more specifically. The functioning of the Jewish Agency exposed his practice to new problems and tasks as well as to new conceptual models evident in both his writings and his designs (discussed in chapter 4).

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241 Their projects in the 1930s included a water tower in Haifa and in the Kibbutz of Ganigor (North of Israel), the Federation health funds in Haifa 1936 and in Tel Aviv, as well as private house designs. Yalan through this period and also, to a lesser degree, after independence, also pursed several private and small-scale institutional commissions, primarily in the city of Haifa. See list of projects, Yael Ben Moshe, private collection.

242 Ratner’s and Yalan’s association might have resulted from Yalan’s elder brother, who was a building engineer holding a high administrative position at the Federation Public Department Office, an institution with which Ratner was most familiar. It could also have resulted from the two men’s positions in the Ha-agana Jewish paramilitary troops before independence. Yalan’s espionage practices for the Hebrew paramilitary group Ha-shai are documented in Lord Orde Wingate’s (1903-1944) memoirs and in the Yael Ben Moshe private collection.
3.3.1. Writing on the Margins of the Architectural Establishment

Raanan Weitz, the head of the Jewish Agency Department of Settlement, contributed a preface that stressed Yalan’s expertise and his crucial role in the Jewish Agency development project. While the book was published under the subvention of the Jewish Agency Department of Settlement and the Technion Unit for Research and Development subventions (see Chapter 4), the Jewish Agency Department of Settlement institutional project of comprehensive development planning of the Israeli rural sector came to an end with this publication. Following Weitz’s shift to focusing on industrial and non-residential village models (*Kafat*), the book’s publication coincided with the closing of the Rural Building Research Center in 1974.

The book’s absence from architectural library collections and Israeli architectural history testifies to its place at the margins of representative and civic modernism. As discussed in chapter 2, the rural sector and building, the focus of Yalan’s book, was marginalized in Israeli architectural culture and discourse after independence. As well, the book’s discrete ways of claiming relations with development planning denied it a place in the spotlight of scholarship. In contrast to the dialectics of text and images in *Kibbutz + Bauhaus*, text and linear orthographic drawings, perhaps influenced by his studies at the Architectural Association and at the Hessische Baugewerkschule der Technischen Lehranstalten Offenbach am Maine, dominate Yalan’s book. These

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243 The book is primarily referenced or serves as a visual material resource in the context of Israeli planning history. See Troen S. Ilan, *Imagining Zion: Dreams, Designs, and Realities in a Century of Jewish Settlement* (New Haven: Yale University Press, 2003) and Chyutin, Michael and Bracha, *Architecture of the Utopian Society, Kibbutz and Village* [in Hebrew] (Jerusalem: Magnes; The Hebrew University, 2010). Based on its listing in the World Catalogue of books, none of the 21 book copies in world libraries are held in architectural school collections. They primarily occupy collections of land grant institutions or civic engineering and Jewish studies collections in research universities. As Sharon’s book testified, the category of a civic or representative modernism as informing the center of attention of current Israeli architectural historiography has mainly relied on residential architecture of high-end institutional programs.
represented multiple scales of settlement organization, construction-related details, and abstract programmatic diagrams. Yalan’s mode of writing and presentation relies less on idiosyncratic, artistic-driven or rhetorical judgments as a marker of expertise than Sharon’s.

Significantly, Yalan’s approach also differed also from Artur Glikson’s. The latter was also a major Israeli architect, a contemporary of Yalan’s and Sharon’s who, like Yalan, occupied a central position at the Rechovot Research Center on Settlement. Distinctly from Glikson’s humanistic and environmental creed, Yalan’s book primarily used descriptive terms in its analysis of development planning, rarely taking a conceptual approach.

The book’s dry tone focused on economic questions such as resource and productivity-based calculations regarding rural sector work. This tone resonated with the spirit of the Jewish Agency for Israel, as chapter 2 discussed with respect to 20 Years of Building. While the edited volume depicted the Jewish Agency as an agent developing territory and buildings independently of and indifferently to architectural concerns, Yalan’s book presented the elaboration of architectural discourse from within this institutional logic. In this respect, it represented a complementary approach to Sharon’s idealization of an economic bare minimum. Whereas Sharon’s disciplinary language and built emblems of simple economy relied on the correlation of photos and rhetorical statements, Yalan’s book correlated drawn outlines with short descriptive statements.

On Glikson’s work, see Rachel Kallus, ibid. Glikson’s essays were collected into several book-length publications, the latter of which was published posthumously in 1970 by Weitz and the Rechovot Research Center for Settlement. This point alone sheds light on the role Weitz and the Rechovot Center have played in commissioning and publishing Israeli architectural discourse from the 1960s to the 1980s. The examination of this role and corpus goes beyond the scope of this research.
Such correlation shaped the book’s alternative visual emblems of optimal economy, whether at the scale of the farmstead or of regional infrastructure.

3.3.2. Institutions and Authorship in *The Design of Agricultural Settlements*

*The Design of Agricultural Settlements* used terms similar to *Kibbutz + Bauhaus* to articulate a functional design rationale formed under Israeli cooperative institutions.\(^{245}\) However, Yalan’s book did not explicitly describe institutions as shaping his personal *Bildung*. He also did not describe the institutions with which he interacted as shaping distinct cultural and ideological sites.

Institutions were nonetheless significant. As a planning manual and theory sponsored by the Jewish Agency Department of Settlement, *The Design of Agricultural Settlements* reflected the views of one of Israel’s major land development institutions.\(^{246}\) The book advanced a particular theory of development and its cooperative organizational principles that were products of the Jewish Agency Department of Settlement agenda.\(^{247}\) It implicitly represented the department and its related research institutions as sites of expertise and design knowledge. This expertise itself was the product of an articulation occurring at the level of Yalan’s practice and writings, primarily between the Rechovot Research Center for Settlement and the Rural Building Research Center.\(^{248}\) While both

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\(^{245}\) As chapter 4 of this dissertation describes, the former included the settlement movement, the Association of the Calf Breeders, the state-run agencies, the Jewish Agency for Israel, and the Office for the Productivity of Labor.

\(^{246}\) The historical role of the Jewish Agency in Israeli architectural writing and profession has been covered in Rachel Kallus, (2015), and Smadar Sharon, (2012). N. Feniger and R. Kallus, ibid; and Kon, ibid. A full and much needed reconstruction of this role is beyond the scope of this dissertation.

\(^{247}\) In the chapter on Regional Planning.

\(^{248}\) Chapter 2 addresses this articulation in detail. Briefly, the Center for the Research on Settlement was a joint initiative of the Ministry of Agriculture (headed in the early 1960s by Moshe Dayan), the Settlement and Technical Department at the Jewish Agency, and the Office for International Cooperation in the Ministry of Foreign Affairs. Two figures seem to have taken a stronger role in devising the institute’s philosophy: Raanan Weitz and the Hebrew University–based developmental sociologist Shmuel Eisenshtadt. The Rural Building Research Bureau, an applied research and standardization center focused on rural production facilities that grew
reflected the Jewish Agency Department of Settlement’s local and international mandate, the former was grounded in regional planning survey projects while the latter focused on design of rural production facilities through various interactions with settlers in Israeli cooperative villages.

The Jewish Agency Department of Settlement co-founded the Rural Building Research Center with the Ministry of Agriculture and the Settlement Movement in 1958 and the Rechovot Research Center for Settlement in 1960. Raanan Weitz headed the Rechovot Center and had significant influence on Yalan’s thinking. According to Weitz, development could unfold through a “feedback loop” between the various scales and agents of planning. To borrow Thomas Gieryn’s terms in his study of knowledge production, this corresponded to the reciprocity between what constituted the actual field of settlement development and experimentation and its conceptualization through research centers. The recursive relation between scales and modes of operation in The

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from the Technical Department in the Jewish Agency Northern Region, published most of Yalan’s research work. The bureau was defined as a support mechanism of the Israeli Settlement Movement as much as a device for export of planning expertise, following Foreign Minister Golda Meir’s 1958 foundation of the Office for International Relations (Mashav) at the Ministry of Foreign Affairs. In 1963, following Walter C. Lowdermilk’s foundation of the faculty of civic engineering at the Technion, the Rural Building Research Bureau was affiliated with the new faculty under the name of Rural Building Research Center; it operated there until 1975, the year of Yalan’s retirement. See chapter 4. On the center’s history, see the World Zionist Archive, Folder: S15/40395, and the Technion Central Archive, Technion 1963 Bulletin, Publications folder. In addition, the Rural Building Research Bureau and later Rural Building Research Center publications were sponsored through the Jewish Agency Department of Settlement, the Israeli Settlement Movement, the Shared Center for Agricultural Instruction (working under the latter institution and the Ministry of Agriculture), distinct associations of animal breeders (Cattle, Poultry, Geese) and by national and international organs such as the Bureau for Productivity of Labor, the Ministry of Foreign Affairs (Mashav, Office for International Cooperation) and the Food and Agricultural World Organization (FAO). The Center of Planning, run by the Ministry of Agriculture and by the Department of Settlement in the Jewish Agency, defined the Rural Building Research Center standardization of rural production facilities, programs and scales based on five to seven years of national programs. See Raanan Weitz, The Israeli Village in the Age of Technology (Tel Aviv: Am Oved, 1967), 229.

Weitz’s use of a model of the feedback-loop in the context of regional planning is itself expressive of his gradual adaptation of development theory throughout the 1960s. The term appears first in his 1968 textbook on regional planning, Introduction to Comprehensive Regional Planning (in Hebrew, Mavo Le‘itchun Ezori Makif). For Weitz’s gradual definition of development planning, see Smadar Sharon, ibid. Thomas Gieryn examines the relations between field laboratories and research labs specifically as part of his analysis of the works of botanists Sir Albert Howard and Gabrielle Howard in, “Three Truth Spots,” (2002). For an
Design of Agricultural Settlements suggests Yalan’s position vis-a-vis these institutions. Such relation presents Yalan as a professional agent whose work was intrinsically enmeshed in the Jewish Agency Department of Settlement research rationale. This manifested in both actual planning and design practice and in Yalan’s recurrent analysis of this practice.  

3.3.3. Functionalism between the Field of Settlement and Design Discipline

As a result of Yalan’s background and complementary institutional engagements, he developed a heterogeneous functionalist design vocabulary. Similar to Sharon’s, this vocabulary articulated issues of programmatic reflection and minimization with issues of comprehensive, regional planning. In his search for the optimal minimum measures of first stages of community planning, Yalan, like Sharon, couples references to the field of settlement with more or less disciplinary approaches to design.

Just as Sharon’s does, Yalan’s vocabulary articulates a common idea in Zionist territorial development, in particular as it was carried under the Jewish Agency for Israel. He expresses this idea in the book’s introduction:

Our slogan was, “a village a day.” We had no choice; we acted according to the words of the bible: “let us do and hear” [a translation of na’ase ve’nishma, a biblical dictum stressing that practice should precede reflection, m.h.]. We gathered together highly qualified experts in various fields who were willing to work under leaders with vision, who cooperated with the settlers and were able to achieve practical results in short time.

understanding of Gieryn’s model of scientific knowledge as dependent upon credibility contests occurring through science’s cultural sites, and more particularly his emphasis on the primary roles of the sites of the “field” and the “lab,” see Gieryn (1999). See also Kohler’s work applying this argument to the field of biology: Robert Kohler, Landscapes & Labscapes: Exploring the Lab-field Border in Biology (Chicago: University of Chicago Press, 2002).

This trait seems also to some extent particular to Yalan’s professional trajectory and distinguishes him from contemporary rural development architects such as Charles Polony.


See also discussion in chapter 2 on the Jewish Agency rationale in the 20 Years of Building publication.
We learned through doing. The feeling that we were participating in great work, building both the “man” and the country, gave us wings. (Italics added.)

That Sharon likewise stresses the imperative of action, understood in idealist and cultural terms, suggests it was central to the self-understanding of architects working for land development institutions. In this, both authors referenced the pioneering settler figure that had immense power in all walks of Israeli life at the time. In Yalan’s manual and theory, this imperative prompts non-theoretical, accumulative descriptions. It grounds Yalan’s functionalist agenda, through the notion of execution related to implementation (bitzuiyut) that typically bracketed pioneer practicality in the aftermath of Israeli independence.

Yalan claimed functionalism in operational and economic terms, as the glossary with which the book opens suggests:

- **Farm** - single agricultural enterprise, is an operational, economic production unit, the basis by which land, which includes the farmyard, fields, pastures, plantations, forests and water resources, is utilized. The place where the farm buildings necessary for the operation of the farm are situated, usually including the farmer’s house. (4) (Figure 3.20)

Without an expressive lens such as Sharon uses, this passage stresses a theorized rationale based on applied research and survey. It also included notions such as

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253 With even less direct reference to the idea of a straightforward practicality, the following quotation from the Introduction also reveals Yalan’s tacit understanding of design and planning under the constraints of field operability: “The plots have to be laid out parallel to the contour lines because it’s best that the plough furrows run horizontally and are as long as possible…. [I]t’s obvious to anyone who works in this field; there’s no need for any special investigation.” in *The Design of Agricultural Settlements Technological Aspects of Rural Community Development*, 3. Moreover, the type of rationale expressed in the citations above conjoins the rationale of bare existence encountered in Sharon’s and Zevi’s formulations (i.e. the thing whose value is predicated solely upon its existence).

254 The biblical dictum Yalan used here evolved into an idiom expression in modern Hebrew. For the place the bible occupied in Israeli popular and academic culture in the two decades after independence, see Anita Shapira, “Introduction,” in *Bible and Israeli Identity* (Jerusalem: Magnes, 2005).

255 Mitchell Cohen, ibid, chapter 1. For Raanan Weitz’s focus on settlement planning as a domain of bitzuiyut, see Weitz, ibid, 9. The Technion Polytechnique in Haifa provides a further exploration of the consolidation of this work ethos, as it is evidenced through the institution’s official publications.
components, functional unit, adequate form, organizational optimum, economic organization, and economic layout. These notions consisted of a reflection on location and layout, and combination. These terms denoted Yalan’s distributional perspective on design, as well as principles pertaining more overtly to systems design and development thinking. Such principles include dynamic and static planning and stages of development. All in all, these terms communicated a reflection on the optimum spatial distribution, implementation, and development of designed variables. It was pursued through the use of measured, geometric drawings as much as of abstract programmatic diagrams. These terms framed the notion of building as an operational unit and a component in a system of entities at various scales designed to support a variety of uses throughout the rural sector (Figure 3.21, 3.22).

Sharon’s culturally expressive approach bracketed the optimal minimum that he identified in emblematic rural production facilities and temporary shacks through notions such as simple, primary, and economic. Yalan’s technically oriented education at the Architectural Association and the Hessische Baugewerkschule der Technischen Lehranstalten Offenbach am Main, on the other hand, had not exposed him to the cultural

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256 On design as an art of distribution, pertaining to the ways that lines and angles partition a plan and define the configuration of spatial limits, rooms and sequences of spaces, see Jacques Fredet, *De l’usage de la Géométrie en Architecture – Illustre par l’étude de Quelques Tracés Urbains et Maisons de Rapport à Paris au XIX Siècle et D’autres Exemples, le Tout Accompagné de Considérations sur les Catégories Architecturales, le Code de Représentation et le Dessin d’Architecture* (Paris: I.E.R.A.U, 1977), 26-8. The idea of distribution as design’s syntactical dimension was central to French neo-classical architectural theory.

257 This second group also comprised the following terms: functional differentiation, static and dynamic planning, optimizational systems, stages of development (to be correlated with the former), agro-technical, organizational principles, location and layout.

258 This point also clarifies the change that occurs in the formulation of the task of planning cooperative villages before and after independence, specifically in comparison with the writing of Richard Kaufman and his emphasis on the need for an “organically orchestrated” design.
discourse of the *Neue Sachlichkeit*.\textsuperscript{259} This may explain his less-rhetorical use of the notions of building, construction, and economy than Sharon’s, as well as the centrality of survey and drawing in his publications.

Yalan’s operational understanding of optimal and economic outlines depended, as Sharon’s did, on the comprehensive nature of his practice. This practice consisted of surveying, designing, and coordinating the multiplicity of design scales. His operational economic vocabulary and modes of its visual codification resulted, moreover, from encounters between design knowledge and land development practices and expertise; between, on the one hand, approaches such as *Existenzminimum*, multi-use and Central Place Theory, and on the other hand, the Jewish Agency development research. The latter unfolded through in-field experiments and their analysis and conceptualization in what formed the institution’s “labs.”\textsuperscript{260} All in all, operational economy expressed a design rationale securing, preserving, and translating the logic of cooperative habitat in the aftermath of independence. More precisely, this logic resulted from the ways Yalan’s coordination of scales for Jewish Agency research institutions strategically used disciplinary tools, and distinct modes of codification – predominantly precise geometric outlines and diagrams.

Survey-based drawings and the codification of new construction became central to Yalan’s work at the smaller scales. His research at the Jewish Agency Technical

\textsuperscript{259} Little is known about Yalan’s single year at the AA (1921-1922). Yalan’s diploma certificate from the *Hessische Baugewerkschule der Technischen Lehranstalten Offenbach am Main* notes the following classes: design of buildings, building construction, building practice and construction policies, construction material practice, statics practice of form, free-style (hand) drawing, geometry, estimation of cost and construction organization, German as a business and commercial language, Mathematics, measuring and mapping, natural science, and arithmetic. In Yael Ben Moshe, private collection.

\textsuperscript{260} See discussion in chapter 4. These included the Rural Building Research Center facility in Alenby Street (affiliated with the Technion from 1959) and the research facility at the Jewish Agency campus in Rechovot.
Department and, later, the Rural Building Research Center, affected the logic of this work. Its surveys employed agro-techniques in pre-state cooperative farmsteads as well as new developments in the international professional literature (mainly west European, German, English and French) in the field described. These surveys were then synthesized into new standardized models – codified through the term of agro-techniques – that facilitated improvements in work operations in the cooperative village farmsteads.261

Yalan’s treatment of regional planning is based on a variant of Central Place Theory. This theory had been the *lingua franca* of the state’s physical and economic planning agencies. It was also the major pillar of the applied research and planning projects the Research Center for Settlement had carried out since its inception in 1960.262 The Center has used Central Place Theory to survey and analyze the distribution of cooperative and regional services in settlements.263 Central Place Theory analysis of the optimal clusters of urbanized poles organized around small sized towns provided the Research Center on Settlement calculations regarding the allocation of shared resources and settlement infrastructure. It supported a reflection on minimal yet flexible spatial

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261 The Rural Building Research Center promoted the dissemination of agro-technical improvements in Israel. Until the early 1950s, the dissemination of rural production facilities models was primarily managed through the Volcany agricultural experimentation station in Rechovot (and to a large extent by veterinarian Raanan Volcay, son of Ytzhak Elazari Volcany, who founded the station in 1921). For the history of mandate-era agricultural research preceding the establishment of the Volcany research station, see Penslar Derek, *Zionism and Technocracy: the Engineering of Jewish Settlement in Palestine, 1870-1918*. Bloomington: Indiana University Press, 1991). Other sites for knowledge dissemination in the field of production facilities were the *Journal of the Calf Breeders*, and *Ha ’sade* (the field) journal published between 1932 and the 1960s. Yalan’s own engagement in the field of rural production facilities consisted of a primary intervention as an architect in this field, and led to further dissemination of knowledge both inside and outside of Israeli. See discussion in chapter 4.

262 Smadar Sharon attributes to the Jewish German planner Joseph Tischler the introduction of this model to the planning-team-tank in the Circle for the Settlement Reform preceding the first national planning unit: “Planners, State and the Design of the National Space,” in *Theory and Criticism* 29 (2006): 31-58. As discussed also in chapter 4, Central Place Theory was used in Yalan’s plan for the Taanach (1953); it was also the basis of Raanan Weitz’s 1954 plan for the Lachish region. (Smadar Sharon, 2012, ibid).

263 Such as schools, nurseries, synagogues, grocery shops, temporal instructional agricultural gardens and in-situ instructors’ housing. Other public amenities were distributed at the level of what planners named a “dormant regional center”. These services included, tractor stations and produce distribution and collect facilities.
arrangement, and on territorial and social development and modernization. This consisted of an analysis regarding the correlation between settlement investment, phasing, and amortization and between settlers’ gradual absorption into “civilized life” or democracy.

Weitz identified these last ideals, to a large extent, with issues of social productivity and participation in the Israeli regional cooperative economy. It was under such rationales that Yalan’s large-scale diagrams, small-scale surveys, and agro-techniques sought to increase work efficiency and productivity in the rural sector. His subtitle, *Technological Aspects of Rural Community Development*, reflects this coupling of agro-technology with regional and community development.

### 3.3.4. From the Farmstead to the Cooperative Region – Rural Building as a Component in the Settlement System

Components of the Farmyard Plan: Correct planning of the farmyard must prove an efficient and economical layout, future development (dynamic planning), microclimatic conditions, traffic lanes, drainage, ventilation, and isolation of livestock. In figure 97 a farmyard plan observing dynamic principles is shown for moshav conditions. — Yalan Emmanuel, *The Design of Agricultural Settlements, Technological Aspects of Rural Community Development*. 65. (Figure 3.22)

Cooperative and collective settlements, on the other hand, composed of a larger number of farm units or a number of multifamily aggregated, constitute in their total structure age, agricultural settlement whose population of some 1,500 inhabitants is made up both of farm families and professionals. These settlements are capable of maintaining efficient local services and, as we have mentioned, of not requiring additional sub-regional centers. They can make use of large regional service centers that can be uninhabited and the property of the settlemen
t. In this manner, instead of maintaining many levels and different patterns of settlement, including the backward settlement and

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264 This developmental lens was not particular to the Jewish Agency; several state and para-state planning agencies shared it. See for instance Glikson’s use of similar terms in Artur Glikson, *Regional Planning and Development* (Leiden: A.W. Sijthoff, 1955), 9-11. See discussion in chapter 4. The Jewish Agency Department of Settlement, under the directorship of Weitz, was established following the Peel Commission in the late 1930s. In line with the perspective on the Israeli melting pot and the challenge of “integrating” the Oriental Jews, Weitz started a collaboration with the Department of Sociology at Hebrew University chaired by Professor Shmuel Eisenstadt. For Weitz’s perspective on regional planning and the melting pot, *The Israeli Village in the Age of Technology* (Tel Aviv: Am Oved, 1967), 129-130. On the Jewish Agency’s use of sociologists as field instructors, see Orit Achiob, *Foreigners in Their Homes* [in Hebrew] (Tel Aviv: Ressling, 2010), 99-101. For the place development studies occupied in post-colonial states, see Akhil Gupta, *Postcolonial Developments: Agriculture in the Making of Modern India* (Durham: Duke University Press, 1998), 8-12.
the underdeveloped town, the proposed structure is composed of large enterprises with sufficient financial, economic, and social resources to interact effectively with the larger city. This system also permits a considerable reduction in the costs of rural infrastructure and of course, expands the rural area. (Italics added.) — Yalan, *The Design of Agricultural Settlements, Technological Aspects of Rural Community Development*.

As Yalan describes it, the search for functional adequacy and optimum organizational layouts necessitated an analysis of minimum and maximum measures of rural-related components. At various scales—the production facility, farmyard, village, and region—the design utilized optimal minimum standards. It also required adapting those components for different scales and hence framing them within the larger system of regional settlement.

At the large scale, the book describes the organization of a metropolitan–rural region. This region encompassed various types of settlements, such as cooperative, single or multi unit villages, collective, and more or less urban. It reflected the Jewish Agency’s vision of a balanced regional economy and occupational diversity. As Oren Yiftachel and Smadar Sharon have shown, regional diversity imposed unequal citizenship and resource allocation paths, which also separated the social strata of pre- and post-independence settlers (what Israeli ruling elites have called first- and second- Israel) between 1950 and the 1980s. Those who defined Israeli settling institutions’ perspective on land and social development, like Yalan and Weitz, did not sensible to these issues of inequality.265

At the intermediary scale, Yalan analyzes organizational principles and measures of the unit and sub-units that formed the cooperative village, and of the single-family

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265 Smadar Sharon. Ibid. Yalan’s reflection on an optimal economic organization addressed the level of the whole region and the right distribution of village clusters. He analyzed the proximity and separation between villages in view of sufficient peripheral land for settlers’ intensive cooperative production, a project pursued during the late 1960s. The objective was to create an economic infrastructure and a distribution scheme for practical services, situating inter-regional services such that villagers could access them by a day’s journey or less.
The schemes and charts rationalizing the relation between length of infrastructure, community size, and investment reflect this (Figure 3.23). The Jewish Agency understood settlements infrastructure and the village clusters economy in terms of initial development investment in and the distribution of shared resources and services. At the smallest scale, the book analyzes the modular organization of rural production facilities. This last category alone referred to a series of programs: cow and poultry sheds in various production capacities, goose fattening facilities, hothouses, and other farm production buildings.

Working in these various capacities, Yalan developed a project analogous to inter-war architectural and urban thinking, specifically captured through the tags of *Existenzminimum* and *Functional City*. Both of these notions, central to the CIAM II and IV meetings respectively (1929, 1933), stressed that the city should be organized efficiently in its various scales. 267

For instance, in the village farmyard, the optimal minimum consisted of 3–4 Dunams. According to Yalan, the Rural Building Research Bureau had presented this

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266 At the level of the cooperative village sub-units, this regarded the model the Jewish Agency advanced from 1950 of the multi-unit village. The Jewish Agency, working from the premise that a sense of community required 60 families but might break down with more than 80 families, clustered three neighborhood units of 60–80 farmyards each, intending to provide an economy supporting the development of infrastructure. “The multi-unit moshav, as it exists in Israel, grew out of the trend to increase the number of members in the moshav. Each of its three neighborhoods, or units, consists of some 60 farming families and several professional families, thus reducing to minimum the size of the closely-knit neighborhood community. This is a very important goal in Israel, as it is easier to organize a small community and it is difficult to find groups of 180 families of the same culture, background and origin. Though communities will gradually become integrated over a period of 10-20 years through the social and other activities of the common center…. …The multi-unit village underwent gradual changes, through trial and error, until it was finally coordinated properly, and distances were reduced to a minimum. Thus, the maximum distance from the home to the unit service center is 350 meters, and the distance to the common center is 600 meters” (Yalan, 40).

267 The objective of these trends was to develop a systematic architectural thinking that would be in line with scientific managerial study of industrial production, codifying the deployment of optimal uses of spaces, from household activity to neighborhood and urban organization. The work of the Russian Jewish architect Alexander Klein, the German Ernst Neufert, and other teachers at the Bauhaus under Meyer (Hilberseimer in particular). In Eric Mumford, ibid. Yalan may have been familiar with this line of thinking through his teaching at the Technion from 1936, during the period when Klein was hired by Ratner.
measure as the minimum size necessary for a self-sustaining productive unit to the Jewish Agency Department of Settlement in 1956 (Figure 3.24). His book presented the minimum and maximum measurements for farmyards, villages, and roads, drawing a calculation on necessary workspaces and the maneuvering of workers and agricultural machinery. Yalan stressed that an optimal minimum depended, moreover, on the adaptability and possible transformation of components. This emphasis conformed to the Rechovot Research Center for Settlement System Theory as well.

The Center’s Settlement System Theory, popularized by Weitz and the center’s in-house economic geographer Israel Prion through the 1960s, states that components of the system must be capable of undergoing a redefinition of their functional inter-relations through time. Existenzminimum, in the inter-war period, as expressed for example in Ludwig Hilberseimer’s and Gropius’s works on housing and neighborhood units, centered on the analysis, organization, and form of the programmatic units. By contrast, the reframing of such an approach through the premises of Christaller’s Central Place Theory and systems thinking consisted of de-emphasizing the final geometric resolution of components. It consisted instead of the use of abstract diagrams and schemes that were only partially formalized. The precise geometries of components Yalan left for construction drawings. The functional design he sought to create would have the minimal effective physical measures to accommodate desired programs while flexibly serving the needs of a various uses and scales of equipment and building implementation. Unlike

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268 Yalan, 69. Yalan undertook a survey of local and west European precedents prior to determining the establishment of the size of the farmyard. (Interview with Levia Apelbaum [Weitz’s research assistant and secretary at the Rechovot Research Center for Settlement], November 2016).

269 Israel Prion, Development Trends of Spatial Rural Co-operation in Israel (Rechovot: Research Center on Settlement, 1964).
Sharon’s word-image dialectics, Yalan’s writing contained a dialectic based on relations between distinct forms of outlines, geometric and diagrammatic in nature.

3.3.5. Optimum of Development Stages – First Buildings and Infrastructure

Just as it does in Sharon’s book, an effort to articulate architectural thought in terms of comprehensive planning for development brackets the optimal minimum Yalan describes at the first stages of development. Yalan’s revision of inter-war functionalist terms responded, then, to the Jewish Agency’s planning engagement in these various scales. This revision stemmed more precisely from an effort to address the conflict between requirements of infrastructure and resource economy and the adaptability and growth of units of production. Framed in developmental terms, these requirements sought to preserve and enhance settlers’ initiative and opportunities to engage in different branches and economic sectors.

Indeed, the dual impetuses for economic compactness and adaptable systems, which Yalan described as equally vital, entailed a conflict. On the one hand, compact layouts would save scarce resources in regional development.\(^{270}\) Adaptability, on the other hand, required the capacity for future reuse and growth. Compactness would restrict multi-use of the sub-units.

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\(^{270}\) The Jewish Agency planners measured and judged compactness relative to several variables: the quantity of land for settlement allocated by the Jewish National Fund land (square of settlement Mishbetzet Hytyashvut), the Jewish Agency Technical Department infrastructure development (primarily roads, electricity and sewage systems) and the village and inter-regional-based services: “Infrastructure: Because of the relatively wide dispersal of population in a settlement, the infrastructure represents a large proportion of the preliminary investment and operating costs. As [an] indicator of efficient planning the road system can be used; its length influences the electricity, telephone water supply, drainage, and sewerage network, and so on. Figure 73 [in Yalan’s book, figure 3.23 in image appendix. M.h] shows various plans for roads and streets in moshavim…. Electricity: Compactness of planning improves efficiency both as regards the length of electricity lines and street lighting” (56).
Multi-use, which was central to the various post-war revisions of inter-war modernism—especially, in the work of the members of Team Ten—was for Yalan rooted in a dual perspective: field practicality, based on a gradual acknowledgement of farmers’ daily experimental and contingent practices, and the Jewish Agency’s larger-scale perspective on the developmental management of economic, social, and natural resources.271

The requirements for optimal measures grounded an understanding of functions as mediators between scales and aspects of the rural habitat. Optimal components combined attention to both rural production facilities (Sharon’s “primary functions of development”) with infrastructure development. In turn, these two mutually determined the maximum constraints for planning and developing agencies, according to Yalan.

Yalan’s chapter on Nahalal village (designed by the Jewish German architect Richard Kaufman, 1921) addressed the conflict between the compact and the adaptable.272 The schemes that analyzed differences between planning, its realization, and adaptations in the village’s phases of development referred to the cowsheds as first buildings, as did this short note on the village’s first phases of development (Figure 3.25):

The double houses, which appear in a plan for water supply and drainage in the year 1923, are located at a distance of nearly 5 meters from the road. At the intersection between the long central street and the ring road there was a kind of plaza — a broadening of the street, with the distance of the double house from the square about 10 meters. Behind the houses, 60-80 meters from the road, double cowsheds serving two neighboring farmers were built. A number of settlers of Nahalal lived in the cowsheds until temporary huts were built. Only later were permanent houses erected. (82)

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271 For the central texts and history of Team Ten’s notions of multi-use, see Joan Ockman, ibid; and Eric Mumford, ibid.
272 The village, located at the center of the Jezreel Valley, was the icon of Jewish cooperative villages originating from the third wave of Jewish immigration to Palestine.
Defining the village’s outer built limit (before the final avenue), cowsheds played a central role in settlers’ agricultural education and in the race for productivity in Yitzhak Elazari-Volcani’s diverse farming model, which he promulgated during the 1910s and 1920s. The model envisioned a cooperative village economy based upon a balanced cultivation model, comprised of field crops and livestock economy, in which milking cows would be a stable income source, a hedge against the fluctuation of crop yields and the poultry branch. In the decade following the 1921 Jaffa riots, these schemes also defined a measure of village security against hostile infiltrations. Exemplifying village preliminary development functions, cowsheds displayed both the compactness of the village and its static nature.

The point Yalan makes is that despite the cowsheds’ location and arrangement, which delimited the parcels and restricted the farmyard’s growth, Kaufman’s scheme managed to undergo small changes. However, such countering of the static nature of the village scheme required costly dismantling of facilities. Thus, the disadvantages of the scheme’s alterations overshadowed its compact distribution. As such, the iconic nature of the Nahalal scheme corresponded with an aesthetic understanding of the civic realm, hindering a developmental approach.

273 Elazari Volcani, Rational Planning of Agricultural Settlement in Palestine (Jerusalem: Keren Hayesod, 1935), 21. Volcani, a Jewish Russian agronomist, was hired in 1909 by the Jewish National Fund (see discussion in chapter 4). For Volcani’s research and planning on diverse farming, see Penslar, (1991).

274 The status of cowsheds as a key and initial role in settlement development is connected to the Jewish National Fund’s 1909 shift to the Elazari Volcani model of development based on the importance of diverse farming with security requirements. The status of cowsheds was initiated by both a family’s production moving away from dry land farming and the need of a village’s protection against hostile Palestinian incursions. See Raanan Weitz, ibid and Penslar, ibid.

275 A related issue that Yalan addresses in his discussion of static schemes (characteristic of Nahalal) is the immediate visual effect of the scheme upon realization. The dynamic scheme’s adaptability is thus deficient, as it pertains to its capacity to provide an accomplished vision of the settlement in the first phases of development. However, in view of the acknowledgment of alterations, this perfection of the static scheme is also a disadvantage as its modification weakens the primary claims of visual aesthetic completion. Yalan, ibid.
Referring to the cowsheds through the temporal accent of first buildings, Yalan’s writing further shifted this use towards a systematic calculation. This type of locational, distributional, and economic reasoning promoted a diagrammatic reflection, in writing and drawing, on the organization of the farmstead production sector (Figure 3.26). It amounted not only to precise measuring and modeling but also to latent topological principles defining built and non-built programmatic entities and spatial partitions.\textsuperscript{276}

The location of the buildings along the axis of the plot permits the gradual enlargement of the buildings. Poultry and cattle sections are isolated by alternating rows from farmyard to farmyard. The brooder house is placed close to the farmhouse to enable constant supervision; a storeroom and laundry separate it from the poultry shed. The cowyard separates the poultry cowshed from the neighbor’s poultry shed. Space is left between the poultry shed and cowyard and the farmyard boundary. All handling is carried out along non-crossing lanes. — Yalan, \textit{The Design of Agricultural Settlements, Technological Aspects of Community Development}. (69) \textsuperscript{277}

Yalan draws upon the Rechovot Center’s applied research to define a posteriori development principles. Throughout the 1960s and 1970s the Center had provided crucial insights for the functioning of the settlements founded in the 1950s. The state gradually structured regional councils based on this research (\textit{Moatzot Ezoriot}). \textsuperscript{278} The Center’s in-house geographers used Central Place Theory, which led them to state that regional

\begin{footnotesize}
\textsuperscript{276} Such principles amounted to a definition of design entities independently of shape and size. Entities instead were examined relative to their positions, proximity, and orientations. The source of this kind of thinking in Yalan’s design requires further inquiry. Rather than a precise disciplinary reference to the architectural culture of the post-war period in which a similar perspective of design and geometry was developed, in particular in the works of Aldo Van Eyck, Yalan’s resources may have been taken from Germanic precedents in the form of Ernst Neufert’s typological study. On Neufert’s notion of topology, see John Harwood, \textit{Governing by Design: Architecture, Economy, and Politics in the Twentieth Century}, eds. Aggregate (Pittsburgh: University of Pittsburgh Press, 2012). For a theoretical account on this use of the notion of topology, see Jacques Fredet, \textit{De L’Usage de la Geometrie}, ibid. Such a notion differs from the use that gained currency in digital (and parametric) inclined design discourses.

\textsuperscript{277} Weitz described this topological and economic calculation in “A Model for the Planning of New Settlement Projects” in World Development Vol. 8: “The effectiveness of the supporting system depends on the location and dispersal of its outlets throughout the project area” (708).

\textsuperscript{278} This question occupied a good part of the Research Center for Settlement’s work during the 1960s. (Prion, ibid). See also Weitz, \textit{From Peasant to Farmer} (New Haven: Yale University Press, 1972).

For more on the idea of developing the smaller scale unit first, and the portion of the regional infrastructure as a measure of risking disequilibrium in the region to the advantage of economizing preliminary costs of infrastructural development, see, Raanan Weitz, “Spatial Organization of Development and Developing Countries,” in \textit{Annals of Public and Cooperative Economics} 39, n.2 (April 1968): 179-185.
\end{footnotesize}
organization should be based on economic, social, and physical planning analysis of the location and distribution of services and infrastructures. This analysis targeted the right framing of existing rural areas (an ensemble of villages and small towns) as regional units. As Figure 3.27 suggests, this analysis, similar to the reasoning at the level of the farmstead organization, relied on topological diagrams.

3.3.6. A Comprehensive Optimum

Yalan’s holistic understanding of economic design centered on his multi-scalar analysis of the optimum as a meeting point between the requirements of compact distribution and flexibility. He believed that Israeli and global rural habitats would form and grow through development planning based on this socio-technical calculation, sought through precise and diagrammatic layouts. His time at the Rechovot Research Center for Settlement and its project of “comprehensive planning” had been formative in this understanding. Weitz’s preface to The Design of Agricultural Settlement stressed Yalan’s contribution in these terms:

Development planning is “comprehensive” or “integrative” only when the three basic faces of the development process – economic, social and physical – are merged into one coherent, logical framework. And it is only when these major themes are effectively blended that a practical, usable approach can be achieved.

Here, Yalan’s gradual acculturation into comprehensive planning is evident in his use of categories such as self-generative, self-sustaining, stages of development, and the

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279 Yalan draws this point in The Design of Agricultural Settlement primarily from the case of the Taanach region and its correlation with the pre-existing city of Afula.

280 As discussed in chapter 4, Weitz formulated his comprehensive development planning model throughout the 1960s based on his understanding of the capacity to translate Israeli local experiences in settlement planning and development into the rising agenda of international development expertise and technical aid projects. For the changing geo-political context to which Weitz’s engagement in technical aid projects throughout the Global South responded, see Smadar Sharon, ibid, Kaluss (2016) ibid and Kon, ibid.
integrative or comprehensive nature of planning.\textsuperscript{281} According to Weitz, Yalan’s contribution to the Jewish Agency comprehensive planning approach consisted of the ways his outlines coordinated the various aspects of planning (economic, social, and physical) through fixed yet potentially developing layouts.

In the book’s chapter on regional planning, Yalan stressed, in line with Weitz’s planning agenda, that the first stages of physical development should not restrict future use of the parcels or growth of the settlement and its cooperative production facilities. These first stages included parcel division, land attribution, road building, electricity installation, and drainage. At the same time, distances between inter-regional centers and the villages also defined such primary measures, as it was necessary to integrate new services in these centers. The village’s co-op peripheral lands had to be usable for future collective development. The private farmyard had to be flexible to changing family technological and productive capacities.\textsuperscript{282}

*The Design of Agricultural Settlements* designates the domain of rural production facilities as part of the historical model of development in Nahalal and, by extension, of the 1920s cooperative workers’ villages. Not explicitly termed as such, Yalan’s calculation of optimum outlines also envisioned large-scale organization of rural settlements from the perspective of first buildings and phases of territorial development. His book calls for the examination of both scales in their initial and possible future development towards their optimal organization. Yalan identifies a tension between the


\textsuperscript{282} Flexibility here refers to adaptation at the level of the farmyard envisioned as the domain of rural production and that of the dwelling, specifically around the issue of integrating what was called the “second generation” into the parcel with the construction of a second house.
irreversibility of physical outlines and the costly nature of infrastructure or rural production facilities, which required accommodation of changes within the micro and macro scales of the settlement system from their initial establishment. As such, the optimum outline of functions became a key component of Weitz’s Jewish Agency development planning. The schemes depicting these two scales presented another form of emblem (comparable to those in Sharon’s book). They exemplify Yalan’s professional capacity to intervene in the management and the representation of a co-op economy.

3.3.7. Functionalist Standardization in View of a Differentiated Habitat

Cooperative and collective settlements, on the other hand, composed of a larger number of farm units or a number of multifamily aggregated, constitute in their total structure an agricultural settlement whose population of some 1,500 inhabitants is made up both of farm families and professionals. These settlements are capable of maintaining efficient local services and, as we have mentioned, of not requiring additional sub-regional centers. They can make use of large, regional service centers that can be uninhabited and the property of the settlement. In this manner, instead of maintaining many levels and different patterns of settlement, including the backward settlement and the underdeveloped town, the proposed structure is composed of large enterprises with sufficient financial, economic, and social resources to interact effectively with the larger city. This system also permits a considerable reduction in the costs of rural infrastructure and of course, expands the rural area. (44-5)

Yalan’s future-oriented optimization and flexibility of functions conjoined Taylorist and developmental perspectives on rural management. Like Sharon’s, Yalan’s understanding of development planning was indebted to Doxiadis’s model of comprehensive environmental planning.284

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283 “The main difficulty facing development planners is the fact that all these physical elements, which play a necessary role in a process that by its very nature should be flexible and adaptable to change, are durable and lasting and therefore form rigid frameworks.” Weitz, Preface (Yalan, ibid).

284 Yalan’s knowledge of Doxiadis’s work requires further research. In his capacity as the organizer of the physical planning section on rural development in a seminar on village planning at the Afro-Asian Bureau in Tel Aviv in 1961, Yalan had contacted Doxiadis, inviting him to participate in the event. Doxiadis sent his assistant Demetrius Iatridis, with whom Yalan maintained later contact, leading to his invitation to lecture at the Ekisits research center in 1961. See “GSE lecture by Yalan E., September 1961,” Constantinos A. Doxiadis Archives. RGA 231 (Archive Files 18781). Shmuel Bickels (who worked for the Unionized Kibbutzim movement) also provided lectures at the seminar. The first seminar drew international interest, specifically from participants in...
In his section on regional planning, Yalan translates his emphasis on multi-scalar functional flexibility into an alternative to Doxiadis’s more systematic understanding of urbanization, visualized through his model of the Ecumenopolis. In Yalan’s view, the latter’s model formed a continuous and uniform scheme of settlement that would ultimately blur the differences between the rural and urban environment. As an alternative, Yalan advanced a notion of a regional differentiated habitat as a crucial part of functional flexibility (Figure 3.28, bottom image). For Yalan, a differentiated habitat defined the Jewish Agency’s contribution to large scale settlement planning. He emphasized the designation of distances and areas of cultivation or industrial activity as a means to maintain a distinction between the scales and patterns of the village, the small town, and the metropolis. He also described the Jewish Agency’s plans as integrating former patterns of development and settlement in the region and allowing settlers to define their level of cooperation.

Ultimately, flexibility and differentiation of components define Yalan’s understanding of the value of the Jewish Agency’s approach. Differentiation enabled the farmyard to sustain distinct patterns of technological and agricultural work. Thus, comprehensive planning framed technically and economically oriented calculations of functions. Comprehensiveness provided an integrative perspective on economy to explain

Doxiadis’s research group Ekistis, with whom Yalan maintained professional relations into the 1960s (Interview with Freddi Kahana, January 2014). The section on regional planning in the Design of Agricultural Settlement makes explicit reference to Doxiadis’s 1968 publication.

285 “The Israeli cooperative experience has so far withstood the test of time, but currently some people hold certain reservations concerning the nature and scale of cooperation. There is a movement among farmers in the moshavim that opposes organizational regimentation. In collective settlements there is opposition to regional and even local industrialization that stresses differentiation between social strata—that is, between managers and the managed. (This differentiation is less apparent in farming than in industrial production.) In spite of these reservations, there are indications that constructive methods of solving the problems will evolve, bringing about a durable establishment of local and regional cooperative farming and safeguarding the mode of life that can be called the present rurality” (46).
what underlies rural habitats. But what understanding of design and planning expertise did such a developmental project presuppose? And how did such functional design expertise serve as a conduit of a specific institutional culture for an Israeli cooperative ethos?

3.4. Conclusion: A Diffuse Expertise – Practicality in the Field of Settlement

Sharon presented a model of qualified expertise, based on the aesthetic, compositional challenge of bare economic facts. His expertise grew out of pre-state knowledge as it was mobilized by a new state-based and international developmental culture of design and planning. This expertise was, ultimately, predicated upon the figure of an author/artist claiming a non-technocratic vision of comprehensive design.

With regard to his career and its general practical approach, Yalan stressed the lack of tension between a political ideological background and its “nonpartisan” result:

One may assume that the secret of success lies in the cooperation between the settlers and the settlement planning teams. While the motivation for the effort was ideological in character, the approach was practical, suited to the capabilities of the settlers.

Yalan lays out two inter-related political rationales for cooperative settlement that this formulation of practicality and, by extension, of modernist design expertise, supported. The first was the substitution of pre-state cooperative villages (kibbutzim and moshavim) with a new model predicated upon moderate or horizontal cooperation, as Weitz depicted this model. This project concurred with Prime Minister David Ben Gurion’s emphasis after 1951 on nonpartisan and anti-sectorial cooperative politics. The state’s objective

was to substitute its own authority for pre-state Labor Zionist alignments (primarily identified with Ashkenazi “first Israel” in the kibbutzim). While supporting this objective, Yalan also crafted his book to position himself as a potential advisor to governments of other countries seeking to develop rural habitat. In the context of the Cold War, development planners such as Yalan saw an opportunity in their potential neutrality as experts outside of the east-west power system.287

Yalan’s understanding of expertise rests on two other emphases. The first was central settlement authority, in this case the Jewish Agency, running parallel to the state mechanism and serving as a guide to and representative of the farmer. The second was the architect-planner as an expert who worked among settlers in the field and could serve as mediator in the name of the authority.288 In keeping with this, Yalan portrays architect experts as learners, recognizing the at times superior expertise of settlers. He opens his book with a comment on his initial lack of knowledge in the field of rural planning and

terms. While paralleling European and North American agendas on development, this “horizontal” framing had to do with overcoming the identification of pre-state cooperative institutions with Ashkenazi ruling elites (on this point see also Shafir and Peled, ibid. 37-74). In the Israeli context, Weitz’s references to “Horizontal Planning” and regionalism as an horizontal model of cooperation sought the establishment of an inclusive structure of cooperation run through a non-party-based state mechanism, albeit the fact that this was a project originally promoted from within the Mapai party.287 Based on Trumann’s talk (1949), Hayter writes that the development era was based on a claim for a shift from imperialist models towards technical aid practices, which the World Bank viewed as based on apolitical expertise. In Theresa Hayter, *Aid as Imperialism* (Hammondsworth: Penguin, 1971). On a critique of the politics of an anti-partisan development approach see Fredrick Cooper and Randall, M. Packard. “Introduction.” *International Development and the Social Sciences: Essays on the History and Politics of Knowledge*. Fredrick Cooper and Randall, M. Packard. Eds. (Berkeley: University of California Press, 1997). 19. Yalan’s book subtitle, “Technological Aspects of Community Development” and the technological vocabulary he uses throughout resonate with this non-politically aligned rational, as they make it potentially applicable to other political and economic systems outside of Israeli post-independence cooperative regionalism.288 “This settlement authority is not intended to replace government institutions, each of which operates within its own sphere. Rather, it represents the farmer and by its direct connection with government bodies assists him in establishing himself on his farm and becoming a member of his community independent of the settlement agencies” (20); “It was not without tremendous effort through all these years that success was achieved. This success is reflected in the fact that the settlements exist, produce and continue to develop. The work was accompanied by many failures and disappointments. What is remarkable is that despite the limited financial resources and lack of knowledge among the settlers, as well as among the experts of the settlement agencies, development is now self-generating” (Yalan, ibid).
design and how it led to his initiative to organize a team of technical experts—hydrologists, agronomists, soil experts, engineers—in order to secure rural planning decisions. This modeling of work soon included field experimentation as well, to allow an integration of know-how gained by farmers from pre-state cooperative settlements.\footnote{These farmers, who belonged primarily to the settlement movement (responsible for the cooperative workers’ villages), commissioned research from the Rural Building Research Center and opened their farmyards for experiments on specific rural production facilities. The models the bureau codified thereafter were the product of the Jewish Agency’s experts and farmers (Interview with Gdalyaho Gal. Cowshed Archive, Kibbutz Yael, folder II).}

His modernist credo of optimal layout was thus the result of a long-term acculturation into the mechanism of planning, implementation, and trial and error through rural production.

Yalan’s expertise was thus based on a process of professionalization parallel to Sharon’s claim for a comprehensive expertise after independence. It was defined by the actual implementation and development of settlements. In \textit{Kibbutz + Bauhaus} Sharon claims an elemental and mythical connection with the field of settlement. On the basis of this connection he displays experiments as a final product, codified through the visual emblems of “first buildings.” These serve both to support the acculturation of his Bauhaus modernism, to imbue the new scales of state production with the traits of optimal simplicity, and to claim a non-scientific leading authority in matters of large scale planning. It also posits that by creating the optimum economic construction of a naturalized co-op environment, Sharon achieved a situation in which truthfulness overcomes rational judgments. It legitimizes the suggestive, spatial, and material nature of his developmental institutional designs.

Similarly, Yalan makes recurrent references to the field to stress his service in
terms of the Jewish Agency in-situ–based instruction for new settlers. The book’s displays of the survey and actual experimentation with settlers further substantiate this emphasis. While modestly claiming a lack of knowledge, *The Design of Agricultural Settlements* conjures a scientific, objective credo that was central to the two research institutions from which he operated. In this, Yalan suggests, on the one hand, the existence of a practical truth able to overcome site contingencies through optimal layout and experimentation pictures. On the other hand, the book represents such optimal surveys and standards as embedded precisely in a contingent historical territory. In this distinct manner, functionalism served to vernacularize a culture of cooperation through design. In Yalan’s book, such culture codified possible modes of the implementation of and settlers’ enrollment into the system of cooperative habitat.

This chapter has explored two variants of the mutual acculturation of land development institutions and modernist architectural thinking that affected Israel’s design culture between independence and the mid 1970s. It traced the various manners by which the co-op habitat and the challenges of post independence development expertise inflected the credos of Arieh Sharon and Emanuel Yalan pertaining to New Building and optimal spaces (*Existezminimum*). As the chapter has shown, both of these leading architects identify the agricultural cooperative as a field of primary experience in

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290 Stressing the non-partisan position, he omitted the fact of a historical inflection of the roles carried by the Rural Building Research Center, as through the 1960s it was primarily concerned with production improvement in pre-state cooperative settlements. See discussion in chapter 4.

291 In Thomas Gieryn’s terms, this represents a mode of knowledge production, in which knowledge, credibility and authority are being validated through the display of the sites of knowledge production (central to Gieryn’s analysis of agricultural research stations). Whereas Sharon’s display operates via the finalized built emblems through which the field is being fetishized, Yalan’s representations of the field display the applied research of post-World War development expertise. These representations assume a scientific etiquette of a disinterested research operating “in the field.” See Gieryn, *Cultural Boundaries of Science*, ibid. 245-253.
territorial development under conditions of resource scarcity. Through their two variants of functionalism, the cooperative environment marked both a model under construction and a field through which professional knowledge was shaped.

The opening and closing statements in 20 Years of Building posit a dialogue between modernism and the land-development institutions that implemented the modernist project in Palestine. This dialogue has shaped both Kibbutz + Bauhaus and The Design of Agricultural Settlements. They portray the modernist architect as an agent capable of addressing and mastering scarce economic resources and rushed development and doing so towards the collective missions of leading co-op and national institutions. While Sharon’s book does so via text-image expression and an aesthetic judgment as to the potency of economic optimum, Yalan’s book does so via calculated outlines, between precise measures, contingent social and technological conditions, and future possibilities of cooperative regional growth.

By examining the architectural formulations of optimum comprehensive design, this chapter reviewed the ways in which agricultural cooperative institutions shaped Israeli architectural knowledge. The two architects’ writings demonstrate their use of design tools and vocabulary to define physical and symbolic emblems by which a cooperative habitat could be translated and re-invoked after independence. While the writings of the 1960s subsumed the rural territory within a more centrist, metropolitan vision of the state, Sharon and Yalan’s functional credos and professional knowledge relied once again on a more heterogeneous vision of the national geography, affected by their engagements in state planning. As this chapter has suggested, the institutions Sharon
and Yalan represented polarized and hybridized the semantics of the local professional knowledge. Sharon’s book made them discursively visible and civic; through Yalan’s book they became marginal and rural. Yet both developed a semantics of a comprehensive functionality and economy that bifurcated along the lines of the polity’s metropolitan and rural environments.
Chapter 4: The Jewish Agency Cowsheds — Rural Building Functionalisms

We need to see the farmer not as a worker but as a business owner, similar to a factory owner in the city. His income depends, hence, to a large extent on the right management of the factory – that is the agricultural farmstead (meshek Ha-chklai). Raanan Weitz, with Avshalom Rokach (Rechovot: The Department of Publications and the Jewish Agency, 1962). 19

This chapter examines cowsheds designed for cooperative workers’ villages, focusing on models that were developed between 1956 and 1961. It addresses the introduction of the open-cowshed model for this cooperative sector, which involved several inter-related developments regarding modernist functionalist thinking, design knowledge, and the conception of rural cooperation under the Israeli state. Through these designs, Israeli settling institutions, and specifically the Rural Building Research Center under the directorship of architect Emmanuel Yalan, have developed a new way to conceptualize flexible rural standards and systems of building and production.292

Yalan and his research center envisioned functional and flexible standards as means of establishing new farmers’ communities. To this end they defined standards in terms of low-scale and user-oriented technologies (“agro-techniques”). The Rural Building Research Center standards also created a common regional framework of rural knowledge exchange and cooperation to bring together settlers who immigrated after independence and older settler communities. While situated within a longer history of

292 Little evidence of the Jewish Agency approach to the design of rural production facilities prior to the 1950s remains. According to rural architect and planner Jacob Maos, Yalan’s foundation of the Rural Building Bureau within the Jewish Agency Northern Technical Department was a first initiative to respond to the question of standardization and adaptability in the cooperative workers settlement sector. Interview, December 2013. Uriel Ha’levi’s account regarding the changing models of milking calf facilities depicts the early 1950s as a period in which the institution relied primarily on a pre-fabricated non-adaptable system. The History of the Calve for Milk Sector in Israel. [in Hebrew]. (Tel Aviv: The Union of the Clave Breeders, 1983). Chapter 3. The Zionist Archive contains no information about the manufacturing and decision-making that preceded this model.
intensification of rural production facilities, which began in the Israeli collective village movement (*kibbutzim*) prior to independence, these standards conveyed a more unique institutional perspective on modernization, rather than the one that occurred in the kibbutzim.

In part, this perspective, advanced through the Jewish Agency territorial development practice, envisioned the Israeli village as a product of industrialization predicated upon western principles of standardization of design. Nonetheless, the heterogeneity of the system and the history of different settlements put a check on this standardization. These resonated both with the pre-state cooperative settlement experiences and with histories of modernization in third world countries.

Analyzing these rural designs, the chapter reconstructs another venue of Israeli functional thinking that was based on experimentation and knowledge exchange within the field of rural settlement. The Jewish Agency rural design culture gradually replaced inter-war Jewish modernism between 1950 and the early 1970s. This culture was predicated on experimentation with light structures, the exchange of knowledge and technologies among settlers and experts and the institution’s evolving development discourse. The agency’s designs began to avoid formal, expressive, or rhetorical measures of civic design that had been typical of pre-state architecture. Its architects began to seek the establishment of regional and institutional frameworks of cooperation, operating throughout Israeli rural settlements. In addition to a practical plan for cooperation, the agency, (as also read through chapter 3) sought to create a theory of territorial development based on the enactment of the plan.
Section 4.1 provides a general background on the dairy sector in Jewish and Israeli settlements, and the transition in cooperative village cowshed models that occurred after the Jewish Agency turned towards cultivation specialization in 1956. Section 4.2. describes the events preceding this transition, addressing the longer course of Jewish architects’ and engineers’ interventions in the design of the village and its production facilities in the two major cooperative movements (the collective and the cooperative workers’ village). Section 4.3. addresses the cooperative village planning reform after independence. Sections 4.4.1 - 4.4.4. analyze several aspects in Yalan’s designs: their formal and technical configuration, their institutional context and the user communities they engaged in exchanges of agricultural knowledge and technology. The conclusion reviews how these aspects relate to issues of modern design knowledge and civic representation.

Through the model of the open cowshed, the chapter asks what role architects and cooperative and land-development institutions ascribed to architectural design in the reformation of Israeli cooperative rural environment. It also examines the role of cowsheds in institutional and civic representation in the period, and the discourse of rural and social modernization that framed this representation. By extension, the chapter interprets the revision of the concepts of rural cooperation after independence.

Before independence, cowshed and rural production facility designs were the first structures most settlements erected and hence became among the most prominent signals of land development by Jewish settlers. The design of these structures, while not reflecting architectural principles, nonetheless became the foundation of architectural
discourse that followed, as chapter 2 has described. Through the writings of two of the major architects working in Israel in the pre- and immediate post-independence periods, chapter 3 reveals the ongoing role of these structures in shaping architects’ claims regarding economies in construction. Yalan’s *The Design of Agricultural Settlements* posited rural buildings, as part of a set of conditions that allow the emergence of a differentiated rural region. This term encompassed distinct settlement schemes, types of farming and equipment needs. The current chapter will scrutinize the impact, after independence, of making rural production facilities the focus of architectural efforts. This emphasis generated a functional design thinking that reflected changing architectural and institutional horizons in the period.

### 4.1. Jewish Dairy Sector and Cowshed Designs from the Late Ottoman Period to Israeli Independence

Beginning in 1908, the Jewish National Fund and its chief agronomist Yitzhak Elazari Volcani promoted the dairy sector as a basis for diverse farming in pre-state Israel and as the major tool for developing modern Jewish agriculture.\(^{293}\) He did so in part because he considered livestock, and the dairy sector in particular, to be a source of reliable annual output, in contrast to the fluctuation of field crops.\(^{294}\) Rural engineers and architects, following German Templers’ models, designed cowshed facilities, which became a starting point in the race for rural development within the cooperative workers’

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293 For the history of the Palestine Colonization Office agricultural engineering expertise and particularly the mixed farming model, see Penslar Derek, ibid. 111-127. For a perspective on the elaboration of the Jewish milking industry and cooperative system during the British Mandate period, see: Yaacov Shavit and Dan Gif'adi, “The Cowshed and the Agricultural Economy in Eretz Israel: The Place and Role of the Dairy Farming in the Jewish Settlement Program in Eretz Israel during the Mandate Period,” *Catedra* 18 (1981): 178-193.

294 Building and planning for cooperative rural settlement underwent significant revisions both in terms of settlement models and modes of organization in the decades preceding and succeeding independence. Cooperative rural planning in the 1920s and 30s was geographically centered in the upper Jezreel Valley and the coastal Sharon region.
villages as they began to form in the early 1910s. Because of this, they became emblems of Jewish labor autonomy and productivity.295

In the following decades—before independence and in the first two decades after independence—two major trajectories, which were tied to Jewish cooperative settlement movements, defined cowshed designs, their production rate, their size and relation with a village configuration.296 They also created discrete paths of expertise in rural building design.

The level of cooperation that defined each cooperative village movement distinguished these design trajectories. These designs ranged from collective villages (kibbutz), which initially turned to specialization in various agricultural sectors, to cooperative workers’ villages (moshav ovdim shitufi). The latter was organized under the Settlement Movement and was predicated upon Volcani’s emphasis on dairy production in diverse farming. Both movements grew out of Eastern European socialist thinking that

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296 Cooperation in this context refers to the variety of cooperative settlement movements, which included: the collective villages (kibbutzim), the cooperative workers villages (moshavei ovdim shitufi) and the cooperative village (moshav shitufi). The first model was based on full cooperation in the use of land, means of production, and labor as well as over issues of credit and purchase and distribution of goods. This movement itself also consisted of sub-movements tied to different conceptions, primarily regarding the village size and character and the religious or secular character of the village. The cooperative workers’ villages were based on small farmholders, who individually leased the land. They were individually responsible for labor and cooperated in the village services (social, educative, cultural and religious facilities, as well as in matters of produce purchase, distribution, and credit). On the third settlement movement see the comprehensive analysis in Chyutin and Chyutin, ibid.
settlers disseminated in the course of the second wave of Jewish immigration (1904-1914) through Zionist youth work organizations.\textsuperscript{297}

In the first movement, production and labor were collectivized and resulted from 1912 in larger-scale facilities. Early on, cowsheds in this movement were based on specialization and, accordingly, intensification of milk production. In comparison, in the cooperative workers’ village movement, farm holders managed production and labor individually. Accordingly, this village movement gave place to smaller-scale facilities. Due to the high cost of cows, average facilities in the cooperative workers’ village movement housed two milking cows at the most.\textsuperscript{298}

The cowsheds of the kibbutzim movements in the 1920s housed 20-30 milking cows per facility, suitable to provide dairy output for collective villages of 120–500 members. Their produce was also purchased and distributed through the Tnuva dairy cooperative.\textsuperscript{299} Beginning in the 1930s further intensification of the dairy branch in the collective village movement was accompanied by the specialization of structures, such

\textsuperscript{297} For the ideological thinking of East European Jewry and its influence on the Jewish Settlement in Palestine during the 1910s see, Shmuel Ettinger, “The Ideology of the Second Aliya in the context of the social and statist thinking of East European Jewry.” In The Second Aliyah — Studies, Vol I [in Hebrew] Israel Bar-Tal. Ed. (Jerusalem: Yad Ben Zvi, 1998), 3-11. The objectives of East European settlers also led in 1920 to the founding of the Work Force (Gidud Ha’avoda) which was the strongest of the workers’ organizations. It intensified (irrigated) cultivation, improved a physical proximity of work to the rural habitat, and increased the number of farm workers. This last point meant a reduction in taxes and stronger social organization Haim Gevti, ibid, Vol I.

\textsuperscript{298} Cows were expensive compared to chickens, which were the other primary form of livestock in pre-state diverse farming. Chicken farming from the 1920s onwards was characterized in the cooperative workers sector by facilities housing larger livestock herds. In the case of milking cows, often, up until the mid 1950s, two different families who settled on adjacent land and milked their cows by hand might share together a single cow which each would milk in its respective facility (this note is based on an interview with rural architect and planner Jacob Maos, December 2013). In Shalom Drori, The Influence of the Size of the Unit on the Economic Efficiency of Existing Cowshed Farmsteads in the Moshavim. [in Hebrew]. (Rechovot: The Joint Office for Agricultural Planning, 1967).

\textsuperscript{299} The planning literature of the 1960s commonly referred to collective village (kibbutz) as “big farm,” and hence from the perspective of the Jewish Agency these villages designated after independence a target of development that in its collective mode assimilated a capitalist logic. In Emmanuel Yalan, Jacob Maos and Lipa Kam. Rationalization of Farm Parcels in the Cooperative Agricultural Village. [in Hebrew]. (Haifa, Rural Building Research Center, 1963).
that housing and milking occurred in separate facilities.\textsuperscript{300} By the early 1940s, most collective villages had cowsheds that accommodated up to 100 milking cows per facility, such that it served in the bigger pre-state kibbutzim as many as 1000-1200 members.

The cowsheds of the cooperative workers’ settlement sector (organized under the Settlement Movement), which began in 1921 with the village of Nahalal, were smaller because the move from diverse farming to specialization before independence was more sporadic. These villages, which were based on the single-family privately owned farmsteads, with independent management of production, cooperated at the level of public amenities and institutions. These included cultural, social, and religious amenities as well as the purchase, distribution, and credit mechanism related to agricultural production. These settlements were physically compact, and the average farmstead during the 1920s was around 28 Dunams. This size allowed a sufficient number of settlers to access collective infrastructure and facilities; to justify the investment in these resources and lower taxes. After independence, farmstead sizes expanded, while overall settlement schemes contracted to allow settlers to walk to the services such as schools and medical care and to allow settlers to create a second housing unit for the next generation, once a child was grown.

4.2. Rural Building Design and Expertise in the Pre-state Period

4.2.1. Cowsheds in the Collective Village (\textit{Kibbutz})

A few case studies from both movements provide a better understanding of the ways village planning; facilities design, and rural design expertise were historically configured prior to Israeli independence. The collective settlement of Merchavia, founded

in 1911, was initiatory and became iconic in this historical sequence (figure 4.1). Architect Alexander Baerwald was unusual in that in addition to designing the layout of the village, he designed the rural production facilities, including the cowsheds. The cowshed Baerwald designed used an internal organization found in Templiers’ communities (Sarona and Vilehelma) in the first decade of the twentieth century. In that, agronomist Yitzhak Elazari-Volcani’s promotion of diverse farming influenced Baerwald, and more specifically as Volcani based his agricultural reform upon surveys of cultivation practices carried in these communities.

The longitudinal shed in Merchavia was made of stone, originally with a flat roof and from the 1920s with an addition low double-pitched roof in tiles (figure 4.2). The ground floor consisted of a central alley and two lateral strips, which were separated from it by troughs and low metallic grids. Hay storage was in the upper level, and the central alley was accessible from the lateral facades to allow the passage of a worker with wheelbarrow, the disposal and removal of hay (from a long opening at the upper level), and the feeding and washing of the cows. Milking would take place behind the two rows of cows, as they were set perpendicular to the alley.

In line with the centrality of the dairy sector as an emblem of the settlement economy and of cooperative work, Baerwald positioned the cowshed perpendicular to the court’s axis. This issue was also based on his use of a 19th century Prussian rural settlements model. These were compact and rectangular and organized resident and work

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301 See for example the discussion of Baerwald’s plan in Freddi Kahana, (2011). and in Chyutin and Chyutin, ibid.
302 Volcani’s first experiments with the model of diverse farming took place in the experimental farm Ben Shemen. For Volcani’s role at the JNF and scientific ideology see Derek Penslar, ibid. For Volcani’s exchanges with the German Templers in Palestine regarding agricultural cultivation models, and the dairy economy see Plezental, ibid. For the role dairy production played in the late Ottoman and British Mandate periods in Palestine, see Shavit and Gildai, ibid.
facilities around a central court in which the production facility was a focal point. The cowshed was also the first building to be erected on the site. Two identical wings, each consisting of two linear housing units for the members of the collective, were extended from the cowshed extremities. The shed thus formed the central built component in the symmetrical organization of the court. Its prominence as a visible symbol of collective work and productivity was made even more legible through the use of ornaments.

In the Merchavia cowshed, ornaments included distinct stone drafts marking the facility’s windows’ and doors’ lintels and sills. These ornaments had some kinship with the ones in the Jewish agricultural school of Mikve Israel (founded in 1861) and in the collective village (kibbutz) cowshed designs in use until the early 1920s, before construction in reinforced-concrete and machine aesthetics took over construction in stone. They were made in the style of Baerwald’s eclectic modernism. It combined rational plan distribution with crafted features that he adopted from surveys in local building practices and oriental arts.

The situation changed in both settlement movements after 1919 with the enrollment of the Jewish architect Richard Kaufman as the head planner of the Zionist World Organization. This development involved specialization in the fields of rural

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303 It differed from Baerwald’s more mature eclectic and orientalist functionalism from the 1920s. Baerwald sought, through rational eclecticism, to found a local Jewish building culture in Palestine. See Ben-Artzi, ibid. See also Alexander Baerwald. 1877-1930. The Architect and the Artist. Lilian Richter, ed. [in Hebrew]. (Tel Aviv: Tel Aviv Museum of Art, 1990).

304 These designs also included stone inscriptions above the entrances indicating the names of the founding cooperative.

planning and design, mutually affecting the roles of architect-planners and engineers. In his new role, Kaufman promulgated ideals of rational and scientific planning. He was also, most likely, responsible for advancing commissions for village plans and designs from architects committed to New Building approaches (which consisted of an emphasis on functionalism, environmental considerations, and machine-, purist aesthetics).  

In the following period, architects assumed responsibility for the physical planning of entire villages as well as small clusters of settlements, village public institutions, and the design of rural housing. Kaufman’s own designs for the collective village movement followed, in part, the enclosed rectilinear logic of Baerwald’s plan for Merchavia. Kaufman also pursued plans that were based on more progressive spatial vocabulary characterized by an open-ended orthogonal organization. (Figure 4.3, 4.4). All in all, whatever the precise configuration was, architects, in most cases, left rural production facilities to engineers who specialized in the field.

Jewish settling institutions began to acknowledge the importance of technical considerations and constraints in such designs. Accordingly, and as chapter 2’s analysis of 20 Years of Building reveals, these facilities defined a limit on the dominance of the rural architect-planners in the pre-state period. This was the limit on the imposition of design intentions on rural labor.

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306 Among these were Leopold Krakauer (1890-1954), Zeev Rechter (1899-1960), Joseph Munio Neufeld (1899-1990) and Arieh Sharon.

307 The first type of configuration served Kaufman initially in the designs of kibbutzim developed under the sub-movement of the National Kibbutzim Association, promulgating an idea of the small and intimate collective group. The second model, early on, was typical of the sub-movement of the Unionized Kibbutzim, promulgating an idea of a big (urban in nature), industrial-agricultural rural community. In Freddy Kahana, ibid.

308 The prominence of technical consideration in this field of design is typically recognized by various architects who specialized in the field, see S. A. Witzel. “Layout and Organization of Farms, Their Influence on Regional Planning.” Zucker Ed. Ibid. 514-529.
Until independence, with the exception of the design for Merchavia, rural production facilities and cowsheds design were the provenance of engineers. Some of these engineers operated from technically tailored cooperative or research institutions, which offered services to cooperative villages across the different settlement movements. Others offered services from within a specific settlement movement. The technical departments (machlakot techniot, standing for a planning department) established in the 1930s and 40s in the largest collective village organizations began hiring in-house engineers.

The engineer Mordehai Kasselman (1856-1974) worked for the Israeli Workers’ Fund (KAFI, Kupat Poalei Israel). He joined the institution as the head of its technical department soon after his immigration to Palestine in 1919. Financed by the American Zionist Organization, KAFI took major responsibility for rural production designs in both the collective village and the cooperative workers’ village sector. In this capacity Kasselman worked on renovations and alternations of cowsheds, as well as designs for new rural production facilities and machinery for both collective and cooperative workers settlements (Figure 4.5).

309 Under the direction of sociologist Artur Ruppin and Raanan Volcani, the Jewish National Fund separated planners from rural buildings even more emphatically. For the role social and agronomical engineering played in pre-state Jewish settlement and its “august” status in leading a political process of nation building, see Derek Penslar, ibid. and Israel in History – the Jewish State in Comparative Perspective. (London: Routledge, 2007). 154.


311 KAFI sought to promote an economic and lucrative dairy sector. Its main source of funding consisted of Zionist American funds and subventions. Zionist American organizations also provided the bulk of the knowledge and technology dissemination for KAFI. With respect to farm machinery, KAFI would commission a machine from the Mississippi Agricultural and Mechanical College and use it as a prototype for farmsteads in Palestine. In Shlomo Dori, ibid. 121-123 Another important figure shaping the field of rural production facilities before and after independence was agronomist Raanan Volcani (son of Ytzhak Elazari Volcani), who worked at the Rechovot Agricultural Research Center from the early 1930s and after 1956 in the Volcani Research Center.
independence, Kasselman always designed these workspaces for settlements after the planning stage, rather than in its opening phase.

The two major collective village movements, the Unionized Kibbutzim Association and the National Kibbutzim Association, created technical departments similar to the one that employed Kasselman in 1936 and 1942 respectively. The division of design labor between rural engineers and architect-planners hardened in these departments. In keeping with this division, architect-planners of new collective villages who were working for these departments defined the overall position of work-areas within a village scheme but left rural production facilities to engineers. The housing area was separated from the work area in most designs by a big lawn, adjacent to which lay the collective public amenities (dining facility and social and cultural center). In-house engineers in these respective technical departments had primary responsibility for the facility designs.

In line with such division of labor, the architect Shmuel Bickels, for example, addressed the design of rural buildings from a compositional and holistic point of view, similar to that chapter 2 described. Bickels served as the head of the technical department in the Unionized Kibbutzim. In his account of kibbutz physical planning, the different areas of the village should harmonize. Rural buildings were peripheral compared to the kibbutz’s cultural and social center (the *dominanta*). He argued the formal composition of

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312 The custom became to orient these two areas according to the direction of prevailing winds, to reduce pollution and smell in the housing area. See discussion of this configuration in Freddi Kahana, (2011) “The Productive-Economic Sector”. See Bickels ibid. I found little evidence on the design of rural production facilities in the archives of these movements. According to historian Freddi Kahana, scant evidence remains in firm A.B. Planning (Alef Beit Tichun), which was founded upon the abolition of the Unionized Kibbutzim Technical Department (interview with Freddi Kahana, January, 2014).

313 To judge from the lack of any publication by engineers working in these departments, they had little intention of claiming a position as a professional expert affecting the field of village design and planning more broadly.
the village would lose its sense of visual focus in the work area.\textsuperscript{314} The engineer Israel Feinmesser, who led the technical department at the National Kibbutzim Association, showed little interest in the aesthetics that interested Bickels. He employed a technical and administrative language of labor optimization.\textsuperscript{315} However, his writings also communicated little attention to the formalization of the kibbutz workplace.

4.2.2. Cowsheds in the Cooperative Workers. Village (\textit{moshav ovdim shitufi})

Kaufman’s understanding of the cooperative worker’s village was in part, similar to Bickels’s. He saw the village’s functional components as, ideally, coming together to create a cohesive, balanced ensemble. As the World Zionist Administration architect, Kaufman also brought this vision to bear on the cooperative workers’ villages, the sector in which, after independence, Yalan would initially intervene. Kaufman’s writings on these villages combined his scientific planning vocabulary, which likely reflected his knowledge of the English town-planning approach, inter-war functionalism, and a visual and symbolic emphasis on design. The latter aspect resonated with his training in Munich under Theodor Fischer (1862-1938).\textsuperscript{316} In Kaufman’s work for this village movement, Fischer’s thinking translated into an understanding of the balance of function and form through organic metaphors. Kaufman articulated these metaphors in his description of the village in terms of living and “harmonic organisms.” These metaphors communicated

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\textsuperscript{315} Israel Feinmesser, \textit{The Kibbutz in its Planning}. [in Hebrew]. (Givat Haviva: Yad Tabenkin. 1984).
\textsuperscript{316} In Levin, Feinholtz and Epstein, (2016). Ibid.
\end{flushright}
Kaufman’s effort to seek a clear and iconic formal configuration for the village as a whole.\textsuperscript{317}

Kaufman’s design for Nahalal best realized his vision. In turn, the geometric perfection of the village plan helped convey the sense of a foundational moment in the cooperative settlement movement (Figures 4.6, 4.7).\textsuperscript{318} Its concentric pattern expressed the village’s self-sufficiency, communicating a balance and mutual dependence that the movement sought to create between the individual and the collective.\textsuperscript{319} The village cooperative center in Nahalal, and following this example in the cooperative workers villages more broadly, consisted of produce collection and distribution facilities as well as of cultural, social, and health amenities.\textsuperscript{320} Individual farmstead slices radiated from this center. They incorporated separate sections for the house, livestock facilities, and crop fields. Creating a spatial crowning with a radiating effect, the production facilities articulated and resolved the relationship between the shared cooperative amenities and the individual organization of work.\textsuperscript{321}

The cowsheds formed the outermost ring of built structures delimiting and holding the village composition. Their position responded to the conception of the village as necessarily defensible, as did the fact that they were built first—often before housing

\textsuperscript{317} Richard Kaufman, “Planning of Jewish Settlements in Palestine.”. \textit{The Town Planning Review, Vol XII} (1926), nu. 2. The metaphors also conjoined thoughts about the village as a living biological entity with musical notions similar to those communicated by Bickel’s of harmony and orchestration. Levin, Feinholtz and Epshtein, ibid.

\textsuperscript{318} Most accounts of Jewish rural planning describe the plan as unique because its formal clarity matched a moment of initiation within the cooperative village sector. In Kahana, ibid. and Chyutin and Chyutin, ibid. Official brochures for regional planning courses in Israel in 1960 featured it as well. Ginzach Ha’medina Archive, in MASHAV course folders.

\textsuperscript{319} In Gevti, ibid, Vol 1.

\textsuperscript{320} Architectural historian Freddy Kahana has argued that this centric and topographically elevated organization was reminiscent of Bruno Taut’s notion of the city crown. Kahana, ibid, chapter 2.

for people—because of their importance to the villages.\textsuperscript{322} Visually, this ring reinforced the village’s concentric layout. It defined a decrease in its density, moving from the center towards the periphery, which consisted of the private fields. In this manner the cowsheds ring expressed a component of the privatization of labor and its recurrent visual and programmatic articulation with the cooperative center of the village.

However, Kaufman’s plan for Nahalal did not include cowshed facilities; nor did his plans for other cooperative workers’ villages in the 1920s. He saw these structures as outside of architectural conceptions. As a result, his plans did not parallel contemporary visions in inter-war modernism on the modernization of the countryside in terms of scope.

Hugo Häring’s 1922-1925 design of Gut Garkau and Le Corbusier’s 1933-1937 project of the Ferme Radieuse illuminates the particularity of Kaufman’s work, as well as the changes in design approach and models that Yalan would introduce after independence. In Häring’s designs the cowshed served to articulate notions of function and flexibly. It was symbolically reflective of work process and hierarchies between the family of the cows (figures: 4.8, 4.9, 4.10, 4.11).\textsuperscript{323} Through the design, and what he viewed as its functional expression, Häring foregrounded the vernacular, rural rootedness of a modern built ensemble of rural labor. The use of traditional materials and techniques, and the ensemble spatial “organic” and non-systematic composition enhanced the effect.


Le Corbusier’s design of the *Ferme Radieuse* originated from the architect’s engagement in rural and regional planning. It followed from his interest in the French syndicalist movement, and its commission responded to the growing crisis in rural work organization and productivity during the early 1930s. On the one hand, the project communicated an adherence to a linear, factory-like organization of functions, informed by the primacy of rationalizing the village interior and exterior relation to mechanized transportation (figures: 4.12, 4.13). On the other hand, as historian Mary McLeod suggests, the project undermined Le Corbusier’s biological thinking through its more formalized and concrete design. He did not achieve his ideal of creating a form that conveyed organic processes such as growth. Nonetheless, despite the project’s lack of materialization, it served as an occasion for Le Corbusier to test his ideas on rational and factory-like organization, which he had earlier advanced through his more diagrammatic urban vision for the *Ville Radieuse*. In this respect, the rural production facility and countryside by extension became, like the *Ferme Radieuse* project, ideal sites for claiming the reformative capacity of modernism.

Unlike these two interventions, Kaufman’s architectural conception of the village stipulated the building lines and density (of the settler’s house and facility), as well as the design of institutions such as the school and the health clinic. In these designs, white-washed, purist and rectilinear treatment of volumes communicated the arrival of machine aesthetics to the rural countryside (Figure 4.14, 4.15). Modernism and farmers’ modernization were thus matched at the level of the rural house and institution rather than in the field of rural labor.

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4.2.3. The Universal Cowshed in the Cooperative Workers’ Settlement

The dairy sector continued to be a core component of farm production in the cooperative workers’ villages until 1955. Accordingly cowsheds were part of the foundation of this village type economy, which prompted the creation of several models the Jewish Agency referred to as the “universal cowshed.” This title resonated with the role the cowshed played in establishing diverse farming in the cooperative village farmsteads. In view of this status, these structures formed a component of the initial settlement subsidy-aid package that the Jewish Agency provided to new settlers as part of a program to promote cooperative settlements. These sheds used pre-cast reinforced-concrete walls, most likely because they were simple to erect and offered significant protection from insurgent attack.

Two or three windows perforated the cowsheds’ longitudinal façade. In the more developed models, a narrow window topped the façade, separating it from the asbestos roof (Figures 4.16, 4.17). As such, the façade testified to an inside-out reasoning, emphasizing its interior organization and use requirements; specifically, the cows facing

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325 In Raanan Weitz and Avshalom Rokach. *Agriculture and Rural Development in Israel: Projection and Planning*. (Rehovot: Division of Publications, 1963). 75. In the decade following independence individual farmstead plots in this settlement type ranged from 2.5 to four dunams (0.25-0.4 acres) in size. The average settler’s plot also accommodated agricultural lands extending further beyond the house (habitat), and a livestock facilities area that was 28-30 Dunams. In Yalan, *Private and Cooperative Agricultural Settlement, International Seminar in Rural Planning* (Haifa: Rural Building Research Bureau. 1961). 36.

326 Ha’levi, ibid. Ha’levi’s account of the changing models of milking calf facilities claims that in the early 1950s the Jewish Agency generally purchased a pre-fabricated non-adaptable facility. I have found little evidence in the Central Zionist Archive and in the Cowshed Archive regarding the manufacturing and decision-making preceding this model. The Jewish Agency in-house technical department engineers most likely conceived this model.

327 These subsidies also included funds to purchase milking cows – which were often shared at initial stages between two settlers’ families – as well as chickens, machinery, and grains. The Jewish Agency subsidy programs was based on a several years period of amortization. See Smadar Sharon, (2012). In the 1960s these programs would define the core of Weitz’s approach to comprehensive planning of regional cooperation (shitat Ha-ashrai ha-mudrach).

328 Rural architect and planner Jacob Maos referred to this reasoning in an interview. January, 2014. Ha’levi (1983) and Dori include stories of loss or injury to the cattle of the collective settlement movement during the war of independence. Ibid.
the front during milking, views for the working personnel, and interior ventilation. The
building’s unique entrance, either at the major façade or located on the left side of the
lateral façade facing the settler’s house, led to a small room of roughly 2.5 by 3.5 meters.
Its edge parallel and adjacent to the longitudinal façade was made of an in-situ poured
cement trough.\(^{329}\)

While the building’s interior conformed to a rationale of linear organization, its
realization in reinforced concrete defined them as finished units of production. It made
future changes difficult and restricted revisions in the production functions of the
farmstead more generally.\(^{330}\) Accordingly these facilities hampered possibilities for the
specialization of agricultural production, including in the dairy sector.

4.3. The Cooperative Workers’ Village after Independence

4.3.1. Specialization in the Dairy Sector and Cowshed Models in the 1950s

Soon after independence, Israeli land development and agricultural planning
institutions have revised their understanding of cowsheds and their design, as well as
more broadly, of cooperative village planning. In the early 1950s, Raanan Weitz,
agricultural economist and planner, and the head of the Jewish Agency’s Settlement
Department, advocated for less emphasis on dairy production in the Jewish rural

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\(^{329}\) Little evidence remains of the decision or design-related choices that led to the adaptation of this model. It was in keeping with the logic of development by shacks described in chapter 2, which continued after independence in the field of hospital developments. Historian Idit Zartal’s comments on the debate between Haim Shiba and Moshe Soroka in 1962 regarding the right measures of preliminary hospital development testifies that this approach was central to the developmental logic that guided Shiba from the 1930s, and at least until the early 1960s. *Days and Deeds, the Life-Story of Moshe Soroka* (in Hebrew) (Tel Aviv: Notebooks for Literature, 1975).

\(^{330}\) They no longer conformed to the 1920s defensive reasoning of a village barrier, which was set against hostile infiltrations or theft. Accordingly, unlike the facility in the 1920s villages that had been oriented defensively, the universal cowshed was oriented parallel to the parcel contour lines.
economy and settlement broadly.\textsuperscript{331} Instead he promulgated specialization in various sectors, dairy among others, in villages with optimal land and climate conditions.\textsuperscript{332}

As cooperative workers’ villages began to specialize in particular types of farming, the effects of specialization in dairy differed from the effects of specialization in other sectors. Specialization in sectors such as beet sugar and nuts and grains that were also promoted within this village movement relied, from the late 1950s into the 1960s, on the foundation of processing facilities at the level and scale of the region or of groups of several villages. As such, the design of these facilities did not have to comply with given farmstead or village physical patterns. Distinctly, designs for cowshed intensification consisted of revising pre-state cowshed models and adapting them within given cooperative workers’ village structures.\textsuperscript{333}

This more unique path of specialization, together with the role that the dairy sector played in founding the historical cultivation model (diverse farming) of cooperative workers’ villages have defined the context in which the Jewish Agency revisited cowshed designs.\textsuperscript{334} This specialization path also characterized cowshed designs relative to the Jewish Agency’s broader revision of Israeli rural and cooperative village planning. Architecturally speaking, with specialization in the dairy sector, a transition

\textsuperscript{331} This was first stipulated through a five year development program devised in 1953 by the Joint Center for Agricultural Planning, operating under the Ministry of Agriculture and the Jewish Agency Settlement Department. In Weitz and Rokach. On the Joint Center see also Haim Gevti, 100 Years of Settlement, Vol I.\textsuperscript{332} Weitz and Rokach. Ibid, 75.\textsuperscript{333} As discussed later in this chapter, as the services the Rural Building Research Center provided gained larger users’ communities, designs were disseminated later in the 1960s throughout pre-state cooperative villages and in the kibbutzim.\textsuperscript{334} In Haim Gevti, ibid, Vol II. see also Raanan Weitz, “Integrative Planning for Israeli Rural Cooperatives (Moshavim): a New Model.”, \textit{Israel Journal of Development}, No. 6 (1975), Vol 2. No. 2. 3-4. On the roles of the Jewish Agency and the Ministry of Agriculture in re-orienting the national agricultural production in the two decades after independence, see Raanan Weitz and Avshalom Rokach, \textit{Agricultural Development: Planning and Implementation.} (New York: Praeger, 1968). 371-384. 

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occurred between two models, and the compact, fully enclosed pre-state cowshed facility, referred to as a “universal cowshed” gave way to open-shed, skeletal facilities.

The Jewish Agency revision of cooperative planning after independence formed significant context for the transition Yalan and the Rural Building Research Center would engender. Weitz’s work in the Jewish Agency Settlement Department was based on an economic planning rationale regarding national-, regional-, and village-based production rates and quotas. Moreover, Weitz’s approach addressed issues of social and community planning. This helped define the conditions in which Yalan and the Rural Building Research Center revisited cowshed designs in the cooperative workers’ village sector.

4.3.2 Reforming Cooperation and Village Planning

In the aftermath of independence, Jewish settlement objectives shifted to consolidate and secure national borders and address issues of economic and social planning. New regional plans served both objectives, assuring continuous Jewish presence and the limitation of future growth of Palestinian settlements between the Gaza strip and Judea and Samaria. The state’s agricultural planning turned to securing and regulating production rates to protect Jewish settlements. Israeli agricultural development plans treated rural and urban settlements as a single system. They devised quotas dedicated to the reduction of surplus production in internal consumption rates and sought

335 The Lachish region that stretched between two national borders in the interior of the Negev responded to this second rationale in its shift to regional planning. See Elisha Efrat, ibid, and Ilan Troen, (2003). Ibid, The idea of limiting future extension of Palestinian settlements and forming a southern limit of Jewish presence was, according to planning historian Smadar Sharon, the objective of the Lachish region development, the major settlement project after independence.

to foster an export economy. These changes challenged the independent economic planning of pre-state collective settlements (kibbutzim) on a national scale; they also involved a new understanding of the correlation of regional planning with social issues.

American modernization theory became prevalent as a form of social thinking in the state rural planning. This prevalence signaled a move away from the dominance that the kibbutzim model had exerted before independence. Supplanting the planning of singular cooperative settlements with regional settlement plans, the Jewish Agency and the Ministry of Housing directed waves of immigrants from North Africa and Asia to the newly established frontier regions. There the state provided them housing and land, either within the new towns or in the cooperative workers’ villages. This plan reflected the assumption that Jewish immigrants who came after independence differed from their predecessors, kibbutz settlers primarily.

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337 As planning historian Ilan Troen notes, agricultural planning provisions intended to assure a sufficient market for agricultural produce, did not fully succeed. Troen attributes this to negative rural immigration flows in the first two decades after independence. In Troen, ibid, 222. According to Raanan Weitz, the primary focus of agricultural planners concerned the maintenance of consumptions quotas, a gradual decrease in the markets’ reliance on import, and, therefore, an increase in the rural sector average income such that it would surpass average urban incomes. The joint rural planning, directed by the Jewish Agency, the Ministry of Agriculture, and the Office for General Planning, envisioned equalizing the average income of the rural sector with that of the Israeli urban sector workers, from 1955. In Weitz and Rokach, (1963). 75.


339 See also discussion in chapter 2 and 3.

340 Such geographic allocation was based on a preliminary population survey of the character of their habitat and work practices in their states of origin by Jewish Agency representatives. See discussion in Smadar Sharon, ibid.

341 Sociologist Gil Eyal has claimed that the notion of development shifted in this context, and that national planning authorities no longer considered it a designation of economic and territorial approaches but rather a designation based on modernization theory. Hence, rather than indicating progress, the term development became an indication of a “retarded” modernization and westernization. By extension, Eyal views the use of this terminology as part of a discourse allowing Israelis to separate themselves from Arab Jews as well as local Palestinians, as modernization and westernization stigmatized these groups. Gil Eyal. The Disenchantment of the Orient: Expertise in Arab Affairs and the Israeli State. (Stanford: Stanford University Press, 2006). 152-185.
The newly arriving Jews largely originated from rural areas in North Africa and Asia, where cooperative movements were not as broadly organized prior to independence as they were in East and West Europe.\(^{342}\) Settling institutions viewed this group as unable to adhere fully to collective rural life and the stern model of the kibbutzim. They understood this group’s settlement, social integration, and productivity as contingent on guidance as to issues of work, economic discipline, personal hygiene, and cooperative ideals such as had existed in pre-state settling communities.\(^{343}\)

In contrast to the single village that defined pre-state rural settlements, groups of three clusters around a regional center comprised the new cooperative workers’ village, now called a multi-unit-village. Yalan’s plan for the Ta’anach region, devised between 1950 and 1953, was the first to give shape to this new model. It was implemented throughout the 1950s across the Lachish region, which was the largest post-independence settlement project. The model envisioned the regional center as a meeting point and a mechanism allowing economic, cultural, and social cooperation among the rural settlements and neighboring small towns.\(^{344}\)

Each of the three clusters in the cooperative workers’ village consisted of 80–100 farmsteads, considered the maximal size that would promote comfortable pedestrian activities. They were defined in terms of the globally used model of the neighboring

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342 In line with this distinction, the Jewish Agency would send instructors and administrators to countries in North Africa to make preliminary selections of Jewish populations seen as “fit” for a rural lifestyle (i.e. capable of agricultural work and obedient to rules and exterior authorities). See discussion in Sharon, (2012). Chapter 2.

343 Land Settlement authorities and Israeli elites assumed such a change existed in part because Zionist cooperation organizations had begun to set up an infrastructure of youth preparation organizations across east and west Europe in 1910 that socialized Jewish immigrants towards these ideals and practices. The general reluctance of the major kibbutzim movements to absorb new immigration waves from these new destinations after independence also prevented them from having significant power in rural settlement. Near, (2008). Chapter 17.

344 In the Taanach region, the city of Afula was the small town that functioned as the region’s urban center. For discussions of the regional centers see Arieh Sharon, (1951). 8-9 and Weitz, (1967). 128-129.
unit. Planning cooperation on the basis of a gradient system of settlements—including three neighborhood units, 3–5 multi-unit villages, and a small town—Yalan’s plan responded to what Jewish Agency Settlement Department leadership understood as an attenuated mechanism of blending immigrants in the classic “melting pot.” It involved both separation and connection between ethnic groups from a single country. The farmstead clusters (neighborhood units) allowed separation (Figure 4.18). The collective facilities at the various scales of settlements sought connections within the multi-unit system, among 3–5 such villages, and between the regional system of villages and the region’s small “development” towns (Figure 4.19).

In this new regional approach, the cooperative workers’ village, with the single-family unit as the basis of labor, became dominant. Settling institutions have understood the single-family’s primary relation to the land, organization of production, and consumption as more propitious for the post-independence settlers’ profile than the more fully cooperative model of the kibbutz.

The cooperation model that ensued envisioned the Israeli rural environment at two scales. On the one hand, the state treated it in diffusive terms. It considered the new regions (ezorim or chavalim) a major component of the country, consisting of a series of settlement types and scales that were complementary sites of agricultural-industrial production. On the other hand, agricultural and physical rural planning focused on the

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345 The dissemination of the neighborhood unit in Israeli planning models exceeds the scope of this research. The model became from the late 1940s central to the first national plan’s concept of the new towns.

346 As chapter 2 discusses, the model of the neighborhood unit became an accepted pattern both for new towns and for rural settlements in the aftermath of independence.

347 These terms were no longer based, as they had been in the pre-state era, upon the level of the rural settlements as a single territorial unit (what Israeli rural planning commonly referred to as “settlement points” nekuda). As discussed in chapter 1, the kibbutzim vision of an industrial-agricultural unit of production originated in utopic Marxist thinking that influenced the ideological founding father of the kibbutz movement, in particular of the
family unit. The Jewish Agency’s investment in rural design and buildings and its promotion of a cooperative village model predicated on the family unit sought to articulate these two levels.

The Jewish Agency’s transition to regional rural planning and design roughly paralleled the shift to post-World War II development-planning practices. As historian Nicole Sackley argued with respect to development planning around the globe, the village became a laboratory for development policies and practices in the Cold War era. Its technical and scientific agenda regarding community development sought instruments of appeasing peasant unrest. Nonetheless, this approach, as historian Daniel Immerwahr claimed in his discussion of US development discourse in the second half of the 20th century, was also instrumental in defining what he identified as a “thinking small” agenda in community development. This agenda put the small-scale interactions and attachments within the rural place and community at the forefront of modernization and development thinking.

Unionized kibbutzim. This vision was re-conceptualized at a regional level in the period succeeding independence.

Planning around the family unit consisted of what agricultural planners would commonly name micro-planning, see in Raanan Weitz, Introduction to Regional Comprehensive Planning. [in Hebrew]. (Rechovot: The Center for the Research on Settlement, 1967).

Sackley Nicole. “The Village as Cold War Site: Experts, Development, and the History of Rural Reconstruction.” Journal of Global History 6, no. 3 (2011): 481-504. This issue was in part also at stake in the Israeli context as historians have noted that the Settlement Department had to deal with recurrent village desertion in the first decade of independence. This issue made necessary a high investment in support and stabilization mechanism in the form of community development programs, regional agricultural instruction and credit mechanisms. Historian Daniel Immerwahr’s study on US development discourse and practices in the second half of the 20th century emphasizes the focus such projects articulated and promoted regarding the village community. He argues that this defined a central sub-trend of modernization theory and development practices as they met rural areas in the Third World. According to Immerwahr, bottom-to-top community development, local networks, and attachment to the smaller scale of rural social interactions and places were as significant as the grand regional development schemes on which the first wave of post World War II planning history has focused. Daniel Immerwahr. Thinking Small: the United States and the Lure of Community Development. (Cambridge: Harvard University Press, 2015). Immerwahr’s reference to the notion of high-modernism in relation to the historiography of postworld War II relies on the primacy that James Scott’s Seeing Like a State played in the early scholarship on this period.

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The hold the institutional and conceptual frameworks that rose following independence had on the state’s planning was short-lived. This was primarily due to the course of agricultural specialization and industrialization. Nonetheless these frameworks set the terms on which Yalan’s work intervened in rural production facilities and cooperative village planning. The new attention to community development and empowerment became central to the Jewish Agency local planning experience and therefore informed Yalan’s work on the new cowshed designs. This attention led to field studies and experiments which his perspective framed through a technical and practical approach. Agro-technical reflection, combined with an experimental approach to design and planning, were congruent with a bottom-to-top understanding of state planning as a mechanism in community development (Figures 4.20, 4.21).

4.4.1. From the Universal Cowshed to the Open Shed

The transition of cowshed models in the cooperative workers’ village after independence roughly consisted of shifting from the fully enclosed “universal cowshed” to an open-shed model. The latter model displayed a new type of functionalist approach to standards.

The open shed was predicated upon the rationalization of the physical structure and the labor processes it accommodated. It also borrowed principles that had been adopted from California farming practices during the 1930s. These disseminated, in

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350 Sackley’s and Immerwahr’s historical accounts of the involvement of international agencies and experts in local planning institutions also had impact. Analyzing this issue goes beyond the scope of this study. The Food Agriculture Organization (FAO) and the soil conservationist Walter Lowdermilk also played a central role among the international institutions and figures that influenced the Israeli 1950s planning experience. See Weitz, (2002).

351 This Jewish Agency planning culture reflected both its experience directing new settlers and founding new settlements with the aid of field instructors and its gradual exposure to American and South American models of development planning.
Palestine, primarily in the collective village and cooperative workers’ villages that were founded in the 1920s (Figure 4.22). These principles were not prevalent in new cooperative workers’ villages established from the 1940s and in the immediate aftermath of independence.\textsuperscript{352} Hence the Jewish Agency’s new promotion of this US-driven principle sought putting new cooperative workers’ villages on par with the older ones.

Yalan’s design for the cooperative workers’ village involved the arrangement of the shed as a series of parallel functional strips (“non-crossing lanes”) that could be extended as needed, primarily in the longitudinal dimension (figure 4.23, 4.24). These strips consisted of an exterior non-covered pasture area, a covered pasture and feeding strip delimited by a manure ditch, a central alley for the provision of manure and hay by the farmer and tractor circulation, and a peripheral strip for the storage of hay, farm utensils, and equipment. In addition to issues of functional flexibility and growth, the skeletal structures provided ventilation that the concrete walls of the early 1950s had sharply curtailed.\textsuperscript{353}

By promoting Yalan’s designs, the Jewish Agency sought to support the transition from diverse farming to specialization within the sector of the cooperative workers’ village. These designs initially targeted cooperative workers’ villages that were founded

\textsuperscript{352} Agronomist and veterinary Ranaan Volcani (son of Ytzhak Elazari Volcani) was among the major protagonists who were responsible for the earliest dissemination of the open shed system, which he encountered on farmsteads in California in the late 1930s. Through the Volcani research center. Volcani, ibid.

\textsuperscript{353} Yalan’s intervention in the field of climate design dates at least to the mid 1940s; it may have began when he taught at the Technion, when Alexander Klein, who wrote extensively about climate in apartment buildings, was among his colleagues. See Yalan (under his pre-Israeli or non Hebraic name of Wilensky) essay Wilensky, Imanuel, 1946. “LiV'ayat Kivun Batey-HaMgurim BeMifratz Ḥeifa.” (The Orientation of Houses in the Haifa Bay), Journal of the Association of Engineers and Architects in Palestine, vol. 7, no. 5, p. 18. While the 1960 and 1961 models did not specify the columns material, profile sections could be built either in metal or wood. Cowsheds built in this period according to the Rural Building Research Center designs relied in many cases on in-situ available, and sometimes stolen, materials. In the case of low-fences, infill and cladding materials were made of wooden stunts. Walls were realized either with a metallic grille or light asbestos panels.
after independence, and were less established in their economy and cultivation knowledge than those villages originating during the 1920s and 30s. Accordingly, the various measures of systematization these new designs defined were restrained. Their skeletal system, modules, and relatively independent components (strips) presupposed self-built practices.

Parsimony in these designs resulted also from their elaboration through survey and experimentation, testing the flexible standards that they modeled in pre-state cooperative workers villages’ farmsteads. Survey, experimentation, and their use towards the shaping of new standards thus defined an instrument by which settling authorities facilitated cooperation within the rural region in terms of knowledge exchange. This occurred between experts and settlers and between distinct communities of settlers, primarily those partaking in the cooperative workers’ movement.

4.4.2. Designing for Cowshed Functional Flexibility

The flexibility of physical planning layouts was central to the effort to design cowsheds for changing production models as the country moved from subsistence to mixed and then to specialized farming. Indeed, the series of cowshed models Yalan designed in 1956, 1960, 1961, and 1964 represented a progression from the cowsheds that had accommodated 1-2 cows, to providing space for 5-8, 8-15, and 15-30 cows, respectively.

In addition to their expandability, Yalan’s open cowshed designs provided a systematic and relatively independent design of the facility as a whole and as a set of components. Central here was an effort to envision the capacities of an agricultural
development that could be pursued within a single-family land plot. Yalan also sought an ideal and economic configuration of the village and plot patterns in view of the efficient distribution of village- and region-based services that would cooperate with the family production unit.\footnote{An issue discussed in greater detail in chapter 3. Efficiency here refers to compact in size, relative to development investment and to daily settlers’ comfortable practices.}

The 1960s designs’ emphasis on multi-use shaped the relations between the components of the facility and its structure as a whole as well as the complementarity of adjacent functions.\footnote{Yalan purpose-related vocabulary made use of \textit{rav shimushiat}, \textit{rav matratiut}. Yalan, (1975), 12.} Principles acknowledging both the possibility of future adaptation by the farmers and the inter-relations among parts of the facility were central to Yalan’s version of an open shed that would sustain the transition between economic production phases.

These principles permeated the design at various levels. As the plan drawings reflected, the models promoted a definition of a preliminary spacious shed that would be based on a grid of square modules. These would be realized through foundations for columns invisible above the ground (Figures 4.25 – the Rural Building Research Bureau plan, 4.26 – an English farm model from which the principle was adopted). Similar to the idea of the open, structurally gridded plan in a reinforced concrete skeleton, this solution sought a preliminary arrangement of a dormant structure in view of the changing functions and growth of the shed. In this way they conformed to the major issues of post-World War II revised functionalist thinking. They adopted these issues to respond to constrained land development conditions under the Jewish Agency.\footnote{In this respect it differed from the more expressive and “organic” reasoning with respect to the parts and whole relations that Blundell Jones interpreted as central to Hugo Haring’s cowshed design. Ibid. This aspect of Yalan’s facility design bespoke his broader interest to define an economic configuration of the village and plot production.}

\footnotetext[354]{An issue discussed in greater detail in chapter 3. Efficiency here refers to compact in size, relative to development investment and to daily settlers’ comfortable practices.}

\footnotetext[355]{Yalan purpose-related vocabulary made use of \textit{rav shimushiat}, \textit{rav matratiut}. Yalan, (1975), 12.}

\footnotetext[356]{In this respect it differed from the more expressive and “organic” reasoning with respect to the parts and whole relations that Blundell Jones interpreted as central to Hugo Haring’s cowshed design. Ibid. This aspect of Yalan’s facility design bespoke his broader interest to define an economic configuration of the village and plot production.}
neutral grid privileged a linear expansion of its major functional strips in the longitudinal direction of the plot (roughly a 30 by 100 meter parcel).

The models displayed various other ways of altering or provisionally forming components in view of alterations. These included the basic programmatic components of the shed, such as the elaboration of a milking parlor and the displacement or extension of the covered and non-covered pasture areas and storage area (Figure 4.27). The 1960 and the 1964 models described the integration under the new shed’s roof of a new structure of milking parlor, supplanting the older structure (Figure 4.28). Similarly, the peripheral functional strips of the shed, serving as storage and as a covered pasture area for the cows, defined alternative solutions. The storage section demonstrated its optional allocations to varying adjacent farmstead functions.

Alterations also included smaller scale components such as the arrangement of the trough, the roof, ors the feeding and manure collection and removal areas. The 1960 model included a survey of local and international trough systems on the basis of which it advanced an optimal solution for the cooperative village (Figure 4.29). As presented in the survey, the kibbutzim’s in-situ poured trough system, embedded in the ground or in a larger concrete floor, did not permit alterations of function for a gradual intensification of labor. Instead, the model included preliminary tests and standardization of two trough patterns. In this he sought an efficient distribution of village- and region-based services that would cooperate with the family production unit. Chapter 3 discusses this in greater detail. Efficiency here refers to compact in size, relative to development investment and to daily settlers’ prior practices.

The publication notes possibilities such as housing a poultry run, areas for drying of different crops, and future development such as a shed housing calves, sheep, or goats for meat. Ibid.

The 1960 and 1964 models envisioned the integration under the new shed’s roof and re-use of the historical universal cowshed as the milking parlor. I noted the use of this solution when I visited several farmsteads in the Taanach region in December 2014. The peripheral functional strips of the shed, which served as storage (on the right) and a covered pasture area for the cows, defined alternative solutions. Adjacent to the central alley from which the farmer fed the cows, the storage was well-placed for hay but could also fulfill other functions.

The flexibility of the shed was more thoroughly addressed in the 1961 model, a 3-phases shed unit (in International Seminar on Rural Planning) that was in part a more theoretical model than that of 1960.
solutions, a concrete pre-fab version or a self-built version using available farm materials (figure 4.30, 4.31). In contrast to the surveyed troughs units created at the scale of the facility as a whole (common in the Kibbutzim and in Europe), these smaller-scale units facilitated an individual process of construction at the farmstead level. They permitted easy extension of the components and the facility as needed, as well as the repurposing of sections of the shed or its general function.

In a similar vein, the roof solution for the sheltered pasture area, which was made of asbestos or corrugated iron, was to be partially demountable (Figures 4.32, 4.33). This allowed for the removal of one of its strips during the summer months to improve ventilation and simulate the cows’ natural habitat. Self-deployable and maintenance solutions for the suspended rafters in the covered feeding area and the organic waste removal (from the sunken container beneath the suspended rafters) both permitted adaptation to specific situations.

All in all, the sub-units of the 1956-1964 shed models responded to changing conditions of use due to multiple circumstances. The user could tailor them to the farmstead’s land type, the availability of funds and machinery, and the presence of

360 This second solution was most likely known to Yalan’s team through a survey of American farmsteads in the 1930s that appeared in the Jewish calf breeders’ journal. Ha’sade, 1936. See discussion in Volcani, ibid.
361 Cowshed for 5-8 Milking Cows, 6. The publication referred to surveys conducted at the Zvuluni Farmstead in the village of Kfar Hasidim in the Jezreel Valley in which the farmers defined two shadowed and better-ventilated open strips for recumbence. The open-shed models reviewed in this chapter differ from the contemporary open-sheds that emerged in the 1990s as a means to reduce methane emissions. While contemporary open-sheds emphasize a sheltered open space intended to simulate cows’ natural habitat, until the 1980s open-sheds were based on a rational distribution of functions and work flows through designated areas under the shed. These areas were delimited by more or less massive limits. The Corrals shed that gradually substituted for the 1960s Rural Building Research Center designs after 1975 increasingly resembled contemporary open-sheds in erasing interior functional differentiation. This approach was furthered in the 1970s and 80s through the works of rural engineers and architects, Hai Evron, Uri Kofman and Yehuda Shprecher.
tractors. Finally, alterations had to reckon with changing climate conditions. The flexibility of this system of parts demonstrated an economy of means in view of the farmstead’s fluctuating systems of production and distribution.

4.4.3. Standards and Rationales of Modernization

Yalan’s designs for the Rural Building Research Center were based mainly on a survey of rural production facilities and the development of standards for them. The center promoted these standards to increase rural labor and building efficiency and the ability to adapt to the variety of circumstances farmers faced in the field. To this end, the center’s surveyors documented work processes, technical solutions, and existing facilities as a whole in various farmsteads throughout the cooperative village sector in Israel, and in international professional literature (Figure 4.20, 4.21, 4.29). They also compiled small-scale solutions into a new facility model.

Through standardization, the Rural Building Research Center replaced the pre-state universal cowshed strategy with an arrangement of components based upon growth and development. This new model consisted of several approaches. On the one hand, it

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362 Primarily, as it regarded the cowshed, in view of the collect of manure and distribution of hay. During the phase of transition to specialization, this last issue was primarily provided and managed through the village or region cooperative amenities.

363 The notes on the model drawings indicate that the Rural Building Research Center was not responsible for design implementation in the villages. Yalan criticized the RBRC for this omission; see Proceedings of the Rechovot Research Center for Settlement. [in Hebrew]. (Rechovot: Research Center for Settlement, 1964).

364 In this respect, as Mordechai Kasselman noted in the add published in The Field, at stake were farmers needs for standards that would be flexible enough to accommodate to different sites. Because of this, the models reflected on issues such as topography, plot structures, and economic resources. Mordechai Kasselman. “Notes for Cowshed Buildings.” Ha-asade, (The Field), Vol. 3 (1923). 223-225.

365 The two journals that dominated this research were the British journal Farm Building and the German journal Bauen auf dem Lande. Minnesota farmstead structures designs note similar concerns to those advanced by the Rural Building Research Center designs. In this state farm buildings were not bound to conditions of standardized manufacturing in the 1940s, a phenomenon that became widespread in the American context only after World War II. Instead, into the late 1940s practices of the self-built, experimental, yet cautious, were observed and reclaimed within farm building literature. In Susan Granger; Scott Kelly; Michelle M Terrell, Historic context study of Minnesota farms, 1820-1960. Vol I. (Minnesota, Department of Transportation, 2006). 2-3.
used a form of scientific reflection on workflows. On the other hand, it integrated principles of the self-built ideal. Both before and after World War II, these principles were informed by multiple cultures of rural development.366

The emphasis on scientific work management was embedded in the history of Jewish labor productivity in pre-state cooperative settlements.367 In the case of the Rural Building Research Center this emphasis conformed to a newly adopted discourse on manufacturing process management that gradually took over the different sectors of labor during the first decade after independence.368 Thus it was part of the modernization that was the state’s main objective in the first few decades after independence.369

Technical departments in the collective village movements pursued labor optimization in parallel with the Rural Building Research Center’s efforts. The establishment of the Rural Building Research Center led collective villages to turn to the center for help.370 However, the center had been formed as part of the revision of cooperative settlement planning and national social integration policies after 1948, and therefore the center’s labor and building optimization endeavors had a dual purpose. Experiments in the field of rural settlement provided a measurement of the program’s flexibility and economy.

366 These cultures originated both from western sources and from sources that originated from encounters between western planning models and rural cultures in the global south in the aftermath of World War II. Sutcliff, ibid, Immewahr, ibid. and Witzel, ibid.
367 For more on agricultural labor research in the pre-state period, see Katz, Saul. Sociological Aspects in the Development (and Replacement) of Agricultural Knowledge in Israel: The Emergence of Ex-Scientific Systems for the Production of Agricultural Knowledge, 1880-1940. (PhD Dissertation, Hebrew University, 1986).
368 National agencies played a crucial role in the dissemination of the new modes of manufacturing process management, with the newly created Office for Labor Productivity under the Ministry of Labor and the journal Hamifal (the factory) the most influential. Officially founded in 1956, the Office for Labor Productivity was part of the sponsoring mechanism commissioning research and designs from the Rural Building Research Center.
369 Reference is required to Pinchas Sapir and Levi Eshol concurrent projects in new town industries and in the water infrastructure.
370 Another department that was instrumental in this context is SHAHAM (Instruction Services Department in the Ministry of Agriculture, that would from the late 1960s also contribute to facility designs).
The open-shed’s use of the structural grid, more than any other component, illustrates the center’s dual approach to optimization. On the one hand, replacing the universal cowshed with a grid based on a uniform span envisioned a more simplified design. On the other hand, the new shed’s structural grid envisioned flexibility and adaptation, first to the linear structure of the plot defined by the parcel lines. This served the physical and historical context of Israeli farmstead patterns. The grid’s adaptation also involved Yalan’s conception of the grid as a potentially non-systematic structure. Yalan envisioned that the farmers’ individual capacities and resources would dictate the ways they implement equipment and building within the contours of his new shed design. Thus, Yalan believed, farmers’ actual needs and preferences would determine the shed’s structural grid.

4.4.4. Standards of Institutions and Rural Communities

The following comments examine the institutional affiliations of the Rural Building Research Center in order to shed light on the ways in which the center’s functional system of standards engaged user communities. Indeed, the relative dependency and autonomy between the various scales and components of the design resulted from the institutional setting in which Yalan conceived the open cowshed. This, in turn, responded to and reflected various user communities.

On the Israeli national level, functional flexible standards and their definition as partially inter-dependent components within a larger whole reflected the Rural Building Research Bureau’s collaboration within the new, post-independence, cooperative

371 This logic is evident in the English model that the systematic grid of Yalan’s design described as exemplary. See discussion in Yalan, (1975).
372 Such use of a modernization instrument, the grid, within a more complex logic is typical of Immerwahr argument regarding “thinking small” strands in post-World War II development agendas. Ibid.
workers’ villages. Israeli settling institutions worked under a widely shared understanding, which stigmatized ethnic groups presupposing a cultural developmental delay among Mizrahi Jews.\(^{373}\)

The documentation for the cowshed models did not evidence value judgments about their users. Nonetheless, the standardization of components in various scales suggests the role these models played in relation to the cultural split between Ashkenazi elites and Mizrachi immigrants. The center’s models first full-scale cowshed models of dairy production intensification (1959, 1960) that were based on five to eight milking cows were evidently meant for farmers in villages that were established after independence and in which an Oriental provenance was dominant.\(^{374}\) As such, the 1960 model was geared towards new settlements, not old settlements.

Nonetheless, the model’s smaller scale agro-technical improvements, while responding in their flexibility to cultivation capacities within the new settlements, were relevant for both new and old settlements. Their flexibility allowed diverse modes of intensification and optimization of the farmstead economy.\(^{375}\) Flexibility allowed the center’s rural standards to become a component in the cooperative workers villages’ shared yet varied path towards specialization. It also permitted the transfer of smaller scale equipment improvements between cooperative villages from the pre-state and post-independence period. The center’s rural building standards can thus be understood as

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\(^{373}\) Official publications often used pejorative designations for Oriental immigrants in this period, such as “second Israel,” based on the idea that pre-state Ashkenazi settlement comprised the “first Israel.” See sociologist Gil Eyal’s discussion of Israeli 1950s modernization sociology, ibid.

\(^{374}\) The histories of dairy production in Palestine and Israel before and after independence reveal that in the 1940s the cooperative workers’ villages that had formed in the early 1920s had begun to shift towards specialization in terms of production rates. Dori, (1967).

\(^{375}\) They were de-facto tested and studied within the old (pre-state) cooperative Jewish Settlement, either due to the anterior dissemination of specific solutions with this public, or due to commissions and collaborations with specific farmers in this sector.
implicitly joining two generations (pre- and post- independence settlers) that together shaped the national history of cooperative settlement under the state.

This issue of standards dependency and autonomy was slightly revised following the center’s 1963 affiliation with the Technion.\textsuperscript{376} This affiliation was one outcome of almost a decade of reorganization of Israeli agricultural research institutions and growing Israeli involvement in the export of technical aid through rural development projects to third world countries.\textsuperscript{377} In this regard the affiliation with the Technion testified to a rebranding of these institutions, and by extension the scientific, expert-based roles that the Jewish Agency could play on the global stage.\textsuperscript{378}

On a local level the affiliation with the Technion was another expression of the national purview of the Rural Building Research Center within the Israeli agricultural sector. It ceased to be identified primarily with the sector of the cooperative workers’ village. Instead, the center’s smaller-scale experiments and developments conjured a neutral identification that was based on the applied research agenda of the Technion Unit for Research and Development. This agenda defined these developments as part of

\textsuperscript{376} As noted above, the center was affiliated with the newly founded Faculty of Agricultural Engineering and with the Technion Unit for Research and Development, at which point it changed its name from Rural Building Research Bureau to Rural Building Research Center. This new affiliation also secured funding from MASHAV (the office for international cooperation in development) for the center. The National Office for Agricultural Planning, the National Council for Agricultural Research at the Weitzman Institute of Science, and the Volcani Research Center at Beit Dagan collaborated with the new Technion faculty in the 1950s and 1960s on matters of rural production and design (in Haim Gevti, \textit{100 Years of Settlement, Vol I.})

\textsuperscript{377} Such export projects occurred under diverse titles, chiefly that of “technical aid” and “cooperative assistance.”

\textsuperscript{378} This was true of Weitz’s foundation of the Research Center for Settlement in the Jerusalem University Campus of Rechovot. Formed in 1962, on lands owned by the Jewish Agency Technical Department, this center and its campus were conceived in proximity to the historical research center of Volcani, the first agricultural experimental station in Palestine – which became a national research center in 1954. As such they were part of reclaiming scientific status for the Jewish Agency’s regionally based development approach.
nationally applied research, in view of privatization, such that it could be offered on the basis of private initiative and commission.\textsuperscript{379}

The affiliation with the Technion also led to a more privatized approach to the larger designs of the Rural Building Research, than the approach that the center practiced prior to this affiliation. These were undertaken at a time when the Jewish Agency Settlement Department had gradually retreated from its investment in field instruction and subventions for cultivation in the cooperative workers’ settlements that were founded after independence. The Jewish Agency’s gradual retreat could be explained by its assumption that farmsteads in the cooperative workers’ villages had by then developed to the point of clarifying the strengths of their rural economy, and reached specialization.

In fact, beginning in 1964, the Jewish Agency initiative withdrew from the large-scale facility research and designs undertaken by the Rural Building Research Center. The new scale and introduction of automated work processes of these designs fulfilled the prospect of agricultural specialization that the agency had begun to push in the beginning of the previous decade. However, at this point in time, associations of livestock breeders or ad-hoc village associations, not only the Jewish Agency and the Settlement Movement, were commissioning them.\textsuperscript{380} In this last period of operation of the Rural Building Research Center (before its 1974 closure), its response to a less sectorial rural public was manifest in its collaborations with collective settlements as well. This fact, ironically, testifies to the gradual diminishment in the clear pursuit across Israeli rural

\textsuperscript{379} According to Yalan’s assistant, Jacob Maos, this unit was responsible primarily for applied research, which included research that was partially sponsored and aligned with commissions promoted by the private sector. Interview January 2014.

settlements of cooperative village ideals.\textsuperscript{381} In the case of the Rural Building Research Center, no longer a structural mechanism of cooperation under the state, it became a public agency functioning as a semi-private institutional mechanism.\textsuperscript{382}

These new developments elucidate the transitional moment in which the 1956-1964 designs occurred, as they still responded to farmstead patterns that had been established in prior decades in the cooperative workers’ village. The move towards larger scale facility designs and automation in the second half of the 1960s also paralleled a gradual separation between rural habitat and the work area, similar to the one stipulated in collective village (kibbutz) planning from the 1920s, only resulting in the cooperative workers settlement (moshav) in a more suburbuen village pattern. The 1960s developments in the cooperative workers’ village sector took place in various stages, with cooperative village settlers and planning institutions initiating larger production units further away from their farmhouse plot.\textsuperscript{383}

In the early 1970s Weitz had promoted a new village model separating habitat and labor with the aid of the rural architect and physical planner Jacob Maos (1924-), who served as a researcher at the Rural Building Research Center until 1964 (Figure 4.34).\textsuperscript{384} This separation resulted from the larger size of the herd and the facility and the evolving

\textsuperscript{381} in Henri Near, \textit{The Kibbutz, Vol II.}
\textsuperscript{382} This retreat of the Jewish Agency was most probably also what led in 1974 to a final closure of the Rural Building Research Center.
\textsuperscript{384} The plan disregarded the actual design of the facilities. It addressed their position in the overall scheme of the village in view of specialization. Maos was Yalan’s student at the Technion in the early 1950s and assistant in the Rural Building Research Center from 1959-1964. Maos’s plans served both for new rural settlements in the Syrian occupied territory of Ramat Ha’golan and in several plans Maos pursued in Latin America (Venezuela and Brazil). See also Jacob Maos, \textit{The Physical Planning of the Village in the Age of Specialization}. (Rechovot: The Research Center for the Study of Rural and Urban Settlement. 1980).
expectations for hygienic improvements at the farmstead (such as minimizing the problem of odor). Further, Maos’s plans for the specialized phase addressed the idea of arranging production in a more or less collective manner, in a proximate satellite village extension.

Through these developments the cooperative workers village approached Weitz’s vision of the cooperative workers village as an economic model between socialism and capitalism. These new villages avoided the full collectivization of labor and production of the collective village movement (kibbutz). However, the erection of these privately owned production facilities in a satellite area of the village, where at times they formed a continuous structure, made it possible to overcome the physical constraints of the single-family farmstead parcel, creating new economies of scale. In so doing these new village plans sought, while maintaining partial cooperation, to also achieve the production rates of, in Yalan’s words, a “big (privately owned) farm.”

4.5. Conclusion: Modern Systems of Value in Cowshed Functionalism

The models of rural development studied throughout this chapter had further implications in terms of modernism and modernization. The replacement of rural production models and design rationales communicated changing design paradigms regarding the nature of Jewish and Israeli rural publics and subjects. These changes in models also evidenced shifts in the terms by which the modernity of the Israeli rural environment was envisioned from an architectural vantage point. By extension, these

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385 The point in these new plans was economizing in the development of infrastructure and sharing equipment such as tractors.
386 This issue of defining the cooperative workers’ village work and ownership model between the two major economic models was already articulated in terms of physical planning thinking in Yalan, Maos, and Kam, (1963).
changing assumptions about rural modernization also defined the contours of Israeli rural design culture between the 1950s and the beginning of the 1970s.

The cowshed designs promoted through the Jewish Agency after independence communicated a technical understanding of the modern. They envisioned it in the context of the modernization of rural production and economies. As this chapter has discussed, the designs’ modernization rationale was dual in nature. It assumed a universalist agenda regarding agro-technical solutions, their systematization or optimization. It also followed an alternative approach based on user adaptation and parsimony. Yalan construed this approach relative to Jewish and Israeli surveyed farming practices and to the post-war development-planning agendas. Thus these designs differed from Richard Kaufman’s village plans and the housing and institutional designs that he created in the 1920s and 1930s, which relied on machine aesthetics and modern town planning as instruments that promoted Jewish rural modernity. Other pre-independence statements by architectural critic Julius Poesner on the effects modernism would play in the formation of Jewish subjects matched Kaufman’s approach.

In the 1936 journal publication Ha’bynian Ba’mizrach, architectural critic Julius Posener discussed such subjects in terms of the establishment of a Jewish modern man in Palestine.\textsuperscript{387} As historian Alona Nitzan-Shiftan argues, Posener characterized this new man through the rational scientific approach he identified with architectural modernism.

\textsuperscript{387} Posener’s position relative to Jewish Zionist politics, as well as his understanding of the role architectural modernism was to play in Palestine, is beyond the scope of this research. Given the date of publication, Poesner’s call implicitly resonated with the Federation of the Jewish Workers and the Jewish Agency, which gained institutional power in leading Jewish settlement in the 1920s and 1930s. It was only in the next decade through the publication of 20 Years of Building that architects advocated alliances between modernism and agricultural cooperatives.
Modernism permitted him to assert a Jewish culture negating the diaspora heritage, the orient, and the urban bourgeoisie.\textsuperscript{388}

As chapter 2 described through analysis of 20 Years of Building, modernist architects in the 1930s and 1940s sought to define the character of rural modernism relative to coop institutional agendas. They did so through deliberations on the fitting architectural expression and representation of Jewish rural and urban sectors. According to the authors of 20 Years of Building (1940), modernism was not only an issue of rational scientific calculation; it was also a negotiation regarding functionalist values of frugality. Through these values, architects’ writings advanced a modest, stern, and seemingly natural character for rural modernism and coop institutions. In this respect, functional design values also sought to vernacularize Jewish settlers, positing their practices vis-à-vis the frugal construction they identified with native Palestinians, while at the same time marking their own self-distinction as modernly frugal and rooted. They also saw it as constituting a correlating Jewish psyche (an “interior soul”) that such values and institutional character would edify.\textsuperscript{389}

Yalan described his farm building improvements in terms of the modernization and the modern nature of the facilities and of the rural habitat more broadly. However, in the post-independence context, as New Building functionalism ceased to serve as a model for design, issues of character, decorum, and aesthetic representation receded in favor of another rationale. The institutional approach to which Yalan responded defined strategies

\textsuperscript{388} In Alona Nitzan Shiftan (2004). The journal was the first to advocate in Jewish media for the relevance of a turn towards the New Building approaches, which it claimed were vital in the rural sector. Poesner’s note was close in spirit, not only to Kaufman, but also to Le Corbusier’s thinking regarding rural planning, according to which the reformation of the French rural countryside in the 1930s would create the modern man. Ref to Tzafrir Feinholtz and Epstein discussion of Le Corbusier contact with Jewish architects in the 1930s.

\textsuperscript{389} See discussion in chapter 2.1.
that would facilitate a transition from a traditional heritage to a modern one. These strategies included improvements in farm equipment and regional organization, which addressed both settlers’ daily work routines, and planning knowledge and coordination.

A schematic chronology of farmyards and cowshed structure from the pre-state era to the period after independence, appearing in a 1961 seminar on rural planning, reflected on this way of life (Figure 4.35: “Historical Development of the Family Farmyard in Israel”).\(^{390}\) It discussed village farmstead patterns and their work areas he had surveyed in Nahalal and pre-state Palestinian villages in terms of “traditional” villages. Such captions challenged Nahalal’s position in the thinking of planners and settlers as the epitome of rural modernity. In this chronology of designs, cowshed models did not simply survey changing patterns of land-use and agricultural cultivation. They also claimed a new definition of a modern cooperative habitat.

The chronology of Yalan’s designs was in line with Raanan Weitz’s description of the early cooperative workers’ diverse farming, specifically referring to Nahalal, as hindering economic development and venues of rural modernization.\(^{391}\) Weitz’s account also compared Nahalal’s layout to the Arab village. Both Yalan and Weitz’s descriptions thus assigned a role in agricultural planning to the Jewish Agency after independence—to

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\(^{390}\) The chronology schemes presented changes in rural plots and farm building structures through paradigmatic models: a mid-century Arab village farmstead in Pkein (1856); a Jewish farmstead in the village of Tabor (1896, based on private land ownership); Nahalal (1921); the first cooperative workers’ village by Richard Kaufman; the village of Tal Shachar (1949); and, finally, two examples designed by the Technical Department of the Jewish Agency (1950, 1956). The lack of a designation of a specific locale indicates that Yalan conceived of these schemes as representing a principle of farmstead organization.

\(^{391}\) Weitz, (1975).
promote farming specialization and modernization as well as an ethnic-cultural difference with the native farming methods.\textsuperscript{392}

The 1950 farmstead design and its 1956 “modern” revision in Yalan’s chronological study depicted the shift to the model of the open shed. The 1950 design showed a structure implemented from its inception to its full length. The 1956 design introduced phasing, dividing the structure into two modules (each six meters long).\textsuperscript{393}

The scheme presented another example of what this chapter has described as a dual logic of modernization. According to this logic, local, individually tailored measures would undergird the Jewish Agency’s prospects for promoting agricultural specialization. Through the Rural Building Research Center, the Jewish Agency nonetheless disciplined these measures through flexible standards and the ideals of make-do.

The individual hybridization of principles of development implied that the Jewish Agency and Yalan’s designs were acculturated into principles of work in the field of agricultural settlement.\textsuperscript{394} However, their frugal approach, which was shaped through survey of and experimentation with Jewish farming practices, did not seek an establishment of modest building and human character (ofi amok) parallel to those proponents of inter-war modernist functionalism had sought. Nor did the approach sublimate its notions of economy into an idealized figure of functionalism, such as the one articulated through writings and buildings relative to co-op monumental design. Nonetheless the Jewish Agency cowshed models evidenced another mode of modernist development.

\textsuperscript{392} Weitz’s use of the terminology of stages of economic growth and development seems to be based on the American economist Walt Whitman Rostow’s modernization theory, to which Weitz was most likely exposed through his development projects commissioned by MASHAV and in which he interacted regularly with American economic planners.

\textsuperscript{393} This also applied to the ways these two models defined the poultry structures.

\textsuperscript{394} To use historian James Scott’s terminology, these designs acknowledged metis, what Scott viewed as the negated other of high modernist planning. Ibid, 309-341.
functionalism. It was inscribed in physical layouts, surveys, and standard provisions. Through these projects and plans the rural field economy became a disciplinary foundation for an institutional culture of design, one that was located between a developing state and its pre-state cooperative heritage.
Chapter 5: The Agricultural Civic Center in Tel Aviv

All changed more and more as the centralistic political principle subordinated the de-centralistic social principle. The crucial thing here was not that the State, particularly in its more or less totalitarian forms, weakened and gradually displaced the free association, but that the political principle with all its centralist features percolated into the associations themselves, modifying their structure and their whole inner life, and this politicized society to an ever increasing extent…. But the more a human group lets itself be represented in the management of its common affairs, and the more it lets itself be represented from the outside, the less communal life there is in it and the more impoverished it becomes as a community. — Martin Buber, “In the Midst of Crisis.” *Paths in Utopia* 395

5.1. Representing the Contradictions of an Interior Frontier

The Jewish philosopher Martin Buber’s concluding notes in his political essay *Paths in Utopia* provide another vantage on the issue of the formation and representation of cooperative agricultural institutions after independence.396 Buber’s critical reflections directly bore on the dangers that the establishment of a Jewish commonwealth presented to the utopian ideals of collective Jewish settlement.397 Indirectly, they also touched upon the conflicted ways in which new administrative headquarters represented these

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395 Ann Arbor, University of Michigan, 1949. 131-133.
396 Its publication shortly succeeded Buber’s organized conference at the Hebrew University, in which philosophers, political leaders, and planners debated on the future of the Jewish rural settlement. Troen, (2003). 220-224. According to Troen, Buber defended his view of the exemplary form of utopian life, the kibbutz movement, as “an experiment that has not failed.” In his book *Paths in Utopia*, Buber’s reflections on forms of utopian thinking in the 20th century, he warned against the substitution of national forms of governance for this model of social organization. Buber Martin. Ibid.
397 Buber served as the Chair of the Hebrew University Department of Sociology from 1930 until the early 1950s. His reflections were in line with the Zionist association *Brith Shalom* in that they were critical of what they considered the separatist ethnic agenda in relation to local Palestinian communities of Labor Zionism and political Zionism. In Steven Aschheim, *Beyond the Border: German Jewish Legacy Abroad*. (Princeton: Princeton University Press, 2007). 5-45. On the affiliation between the architect Erich Mendelsohn and Brith Shalom see Nitzan Shifman (2004).
settlements and their developing institutions in Israeli urban centers, particularly Tel Aviv, after independence.\textsuperscript{398}

To follow Buber’s reasoning, headquarters had to reconcile one form of organization, which was based on collectivity and consensus and correlated with concrete modes of rural habitation, with a form of organization defined from the exterior, foreign to collective ideals and ways of life. From an architectural standpoint, as discussed throughout chapter 2, this issue concerned the definition of a fitting representation, character, and spatial frameworks for the directing members of agricultural cooperative institutions.

References to headquarters in daily newspaper reveal that from the time of their establishment starting in the 1930s the urban administrative headquarters this chapter will discuss were more than simple bureaucratic organs. They housed workers’ reunions, exhibitions of produce and technology, and more or less formal administrative and cultural meetings. They also occasionally served for the display of the coffins of workers’ leaders and as a starting point for a funeral procession.\textsuperscript{399} These events communicated the status of these buildings as emblems of the institution’s role in creating an institutional family membership with the figures of earlier pioneers serving as fathers. This status extended outside of the city and towards the historical origins of Jewish settlements in Palestine.

This chapter analyzes a series of administrative headquarters for agricultural

\textsuperscript{398} The General Federation of Labor maintained its health care facilities, workers’ houses and centers, and convalescence centers after independence. The firm of Leitsdorf and Gvrizman received several of the major administrative commissions for intermediary urban centers such as Raanana, Rishon Lezion, and Petach Tikva.

\textsuperscript{399} Agricultural cooperative leaders honored in this fashion include Avraham Hertzfeld, Ytzhak Shapira, and Moshe Dayan, as reported in the daily journal of the Mapai party \textit{Davar}. See also chapter 2, text appendix.
cooperatives and land development institutions that were designed in Tel Aviv Civic Center (Hakirya) in the two and a half decades after independence. These headquarters epitomized the conflict between different types of institutions. While its urban plan was only partially accomplished and its architectural design non-systematic, the Kirya was the largest city administrative center and housed many agricultural cooperative headquarters after independence. The designs for these headquarters manifested a notion of the agricultural cooperative functional economy quite different from the one that was analyzed in chapter 4. The Kirya formalized this notion through the vast size of buildings and the fulfillment of new levels of standardization in construction and optimization of programmatic envelops. These designs were distinct from the efficiency of rural production facilities, which was predicated on flexible assemblage accommodating farmers’ changing needs (as discussed in chapter 4). Functional economy in the Kirya designs amounted to a marriage of organizational simplification and representation of the field of settlement. In this context, flexibility had various dimensions: metaphoric spatial arrangements resonating with ideal-type spaces related to cooperative rural habitation, the use of ornament, artwork, and signage. These representations, which were more spatial- and art- based than those of the rural buildings, communicated-public expectations that this built work would be associated with a foundational pre-state settlement project.

This chapter asks: What functional approaches emerged through the design practices in this urban site? How were these approaches representative of the cooperative social ideal and its transformation after independence? How did these designs sought to establish relations between an administrative urban program and cooperative social
organization? Finally, what reciprocities existed between these designs and changing architectural understandings of the notion of the civic center?

Sections 5.1.1-5.1.2 discuss the transformation of Tel Aviv civic center after independence and the context in which the Kirya district became a seat for agricultural cooperative headquarters. Sections 5.2-5.4 focus on three moments in the designs of these administrations through five case studies: 5.2 the Agricultural Bank and the Farmers House, 5.3 the Jewish Agency Headquarters, 5.4. the National Kibbutzim headquarters and the Agricultural Civic Center commission. Section 5.5. reflects on the implications of this history for the historiographical understanding of modernist architecture in Tel Aviv.

5.1.1. Tel Aviv’s Eastern Expansion and its Administrative Headquarters

The Kirya district developed over the historic lands of the German Templers Colony S’arona (figures 5.1). The colony inhabited a plateau; it was delimited in the late 1940s to the east by the Ajuha river, to the south by a slope rising slowly to the southern crossroads of Alenby Street and Petach Tikva Road, and to the west by the limits of Patrick Geddes’ 1925 plan for Tel Aviv (which had the Ibn Gabirol street as its boundary). The Jewish presence in this site informally evolved through the mid 1940s as Jewish paramilitary troops (Ha’agana) gradually received permission through the British Mandate to use what became during World War II deserted German properties.400 The East Plan for Tel Aviv (Ha-tochnit lemizrach Tel Aviv) elaborated under Mayor Israel Rokach (1896-1956) and the city’s engineer, Jacob Ben-Sira Shifman (1899-1994),

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officially claimed and formalized this Jewish presence in 1949 (figure 5.2). The plan sought the annexation of the non-Jewish territories to the east of Geddes’ plan to allow the integration of some 100,000 inhabitants. 

The East plan could not mold the Kirya district as completely as it molded other districts. The German Templers colony in the district had developed the area a good deal; the East plan’s design for it reflected this history in its plans for new roads, urban blocks, and parcel structure. In spite of this partial resolution of its design, the district became emblematic of the East Plan’s major thrust.

The major thrust of the East Plan consisted of a revision of the city’s 1920s Geddes-driven regionalist and garden-city agenda. A series of new east-west urban entrance arteries connecting Tel-Aviv to the adjacent Jewish cities to the east were among the main features of this urban plan. Extending and enlarging Geddes’ transversal roads, this series of roads created an efficient territorial connectivity between

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401 The plan was elaborated over the course of 18 years beginning in 1931. For the history of this plan see: Catherine Weill-Rochant, L’Atlas de Tel-Aviv, 1908-2008 (Paris: CNRS, 2004). 117-124 and Nathan Marom, City of Concept: Planning Tel-Aviv (Tel Aviv: Babel, 2009). 92-176.

402 Of the 6,500 dunams (the land measure used in Israel, equaling 1,000 square meters) that belonged to the S’arona colony, the Ben Sira city plan envisioned the annexation of 4,400 dunams. Together with the annexation of the territories of the Palestinian villages to the east of the Geddes plan, this would have doubled Tel Aviv’s pre-independence municipal territory, which mounted to 6,635 dunams in 1942. Nir Mann, 25.

403 The southern section of the plan (the wholesale market and the northern section above the Kirya) were more clearly outlined in terms of the roads, parcelization, and land use. In this latter and more consequential portion of the plan, Ben Sira reworked an enlarged and denser version of Geddes’s picturesque residential grid, which was based on mega urban-blocks. Geddes’s mega-block consisted of an assemblage of three to four urban blocks around an interior garden and local institution operating at the scale of the neighborhood. On Geddes’s idea of the Tel Aviv mega-block, see, Volker, M. Welter, “The 1925 Master Plan for Tel Aviv by Patrick Geddes,” in Tel-Aviv, the First Century: Visions, Designs, Actualités. Maos Azaryahu and S. Ilan Troen. Eds (Bloomington: Indiana University Press, 2012), 299-326. See also Sabai Anouk Ramedhan-Levi. Réalisations de Proposition de Patrick Geddes pour Tel-Aviv, 1925: Permanences, Détournements. (master's thesis École d'Architecture Paris-Belleville, 2001).

404 This issue had to do with the fact that with the desertion and expulsion of the inhabitants of these villages during the 1948 war and with the appropriation of their lands by the JNF. From Geddes’s north-south longitudinal direction of growth, Ben-Sira’s 1949 plan shifted inland to an eastern orientation along the city’s larger frontier.
Tel Aviv and its hinterland affirming the city’s metropolitan status (figures 5.3, 5.4). City planners’ emphasis on inward and outward circulation led to the enlargement and privilege of the outer east-west arteries that have extended eastward from Geddes’s mega-block grid.

The high presence of state and cooperative institutions along the new east-west arteries of the Ben-Sira plan further confirmed this new status, making them an important site for the design of civic institutions (figures 5.5, 5.6, 5.7). In the Kirya district, these institutions formed a dense cluster centered on the margins of a military base (Yehoshua) that developed after independence and which also served as Israel’s seat of government from independence until 1952 (figures 5.8-5.14).

In his role as chief architect in the planning committee that was put in charge at the Prime Minister Office for the development of the site, Arieh Sharon offered an extensive development plan for the district in September 1949 (figure 5.15). It was based on long serpentine housing blocks, oriented north south and placed in a continuous garden that were similar to the elevated social classes housing scheme in Le Corbusier’s

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405 This status is, moreover, characteristic of the urban fringe located further to the east, along the roads of Menachem Begin and the Ayalon highway, which defined the outer edges of the 1949 eastern plan. For the importance city planners accorded to the question of a more efficient circulation between Tel Aviv and its hinterland, see Nati Marom. ibid.

406 Geddes’s plan sought the integrations of agricultural gardens within the interior of the mega-blocks, both at the level of parcel and of the public green areas inside the block and along the system of boulevards. With the development and densification of the Geddes parcel structure this idea was gradually abandoned. In the eastern plan, the Geddes mega-block was superseded by a more leisure-based conception of its central green spaces. In Sabai Ramdan Levi. Ibid.

Plan Voisin for Paris (1925). Sharon’s conservation of only one historic monument also resembled the Swiss architect’s approach. He envisioned the clearance of all historically built residues of the Templers Colony except for the building, which served as the seat of the Prime Minster office and the first temporary government, at the northern eastern section of the Yehoshua military camp.408

However, because of conflicts between the Tel Aviv municipality (represented by the engineer and city planner Jacob Ben Sira and the major Israel Rokach) and the planning committee for the Kirya, the district was gradually divided (figure 5.4).409 The portion of the military camp Yehoshua included new governmental buildings next to the German colony stone houses, bordering the wholesale market to the south of the site and the Ayalon river and Shaul Hamelech Boulevard to the north. A second portion that was allocated to the Tel Aviv municipality by the Jewish National Fund became an extension of the Geddes plan civic center. It housed both civic institutions (including the journals and the writers association) and a series of agricultural cooperative and land-development institutional headquarters.

Kirya district’s block (outside the Yehoshua military camp) and parcel structure determined and reshaped the series of institutional headquarters it would house. This conveyed an effort to retrieve some of the measure of large-scale planning and building span that Sharon’s plan had envisioned. The towers covered a parcel span two to three times larger than the residential parcels in the Geddes and the Ben Sira plans area. Some

408 Mann, ibid.
409 Military historian Nir Mann has discussed the hesitancy of the Ministry of the Interior to develop the Kirya as the state’s first governmental center, and the decision to relocate the governmental offices to Jerusalem after 1952. These finally put a halt to Arieh Sharon’s larger scale schemes that were discussed for the Kirya district between 1949 and 1951. As Mann stresses, Sharon and Ben-Sira were both underestimating the unruly nature of the development of the site, but the expropriation of portions of the district and its built fabric by the Ministry of Defense in order to develop the military base of Yehoshua had caused significant disorder. Mann, 101.
had façades spanning the length an urban block. They conformed to Arieh Sharon’s push for architectural solutions and building scales allowing a better support of the urban figure and rationalization of parcelization scheme. These issues were, according to Sharon, hindered by the parcel structure of the 1925 Geddes plan.\textsuperscript{410}

Ultimately, the higher density that characterized new institutional headquarters in the Ben-Sira plan area enhanced the effect of these towers on the urban-block structure. Their development on Jewish National Fund property, which allowed for unique building rights and higher densities, had made this possible.\textsuperscript{411} The fact that the area of the Kirya that developed outside the Yehoshua camp followed, ultimately, a series of smaller-scale urban plans (Taba) that were legislated between 1948 and 1968 also drove the impact of the towers. Specifically, Jewish National Fund building rights and the area’s ad-hoc urban plans allowed a gradual increase in building heights and setbacks in relation to the street alignment. As the district developed towards the north and northeast, further away from the area surveyed in this chapter, the size of entrance squares increased to accommodate the larger heights and broader setbacks.

In its dense institutional presence, the Kirya district represented the ways state and cooperative powers revised the city’s fabric, by virtue of both their sheer density and their actual designs. As such the district exemplified the larger phenomena visible

\textsuperscript{410} \textit{Kibbutz + Bauhaus}, Chapter 3.

\textsuperscript{411} As such these seats manifested an institutional state-and para-state presence affected by specific regulation accorded to national land. Talya Margalit: “Public Assets Versus Public Interest- Fifty Years of High-Rise Building in Tel Aviv, Geography Research Forum- Planning and the Public Interest, Vol. 29, (2009). pp. 48-82. See also Central Zionist Archive, Kirya Planning Folders, indicating the Jewish National Fund ownership on the lands in proximity to the historical military camp of Yehushua). Negotiations over the commissions are also making recurrent reference to the leasing of the land from the Jewish National Fund, Givat Haviva Archive, Collection Israel Feinmesser, National Kibbutzim Headquarters Folder, letter claiming attribution of another parcel for the National Kibbutzim Headquarters.
through the Ben Sira plan’s west-east arteries. It manifested the shift Tel Aviv underwent from a small-scale garden city (as Geddes had envisioned) to a state metropolitan center.

5.1.2. Revising Geddes’s Civic Center in the Kirya District

In its position to the east of the Geddes’ plan civic center, the Kirya programmatically and morphologically transformed the city core. Delimited by rectilinear residential urban-blocks and housing the city’s cultural institutions, the 1925 center (fully realized only between 1952 and 1959) was envisioned as a civic crown (or acropolis) from which Geddes’ urban boulevards radiated (figures: 5.16, 5.17).\(^4\) By contrast, the Kirya was a loosely delimited institutional ensemble. Its major road structure was transversal, directed both outwards (to the east) and inwards (to the west and to the interior of the S’arona colony). It juxtaposed the smaller scale of built fabric and road system originating from the Templers Colony and formed a flimsy support for an institutional setting.\(^5\)

Sharon’s original plan for the Kirya district, similar to that he conceived for Jerusalem after 1952 (figures 5.18), envisioned this urban site as a pedestrian center, in which large portions will be strictly pedestrian. In both cases, an overall scheme coordinated the institutional scenography. Distinctly, the siting, approach, and visibility of the Kirya’s institutions were ultimately defined in an ad-hoc manner for each building.\(^6\) The lack of distinct public spaces in the realization of the district until the

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\(^4\) Weill-Rochant, 109-110.
\(^5\) Mann, 49-51.
\(^6\) Moreover, because the Kirya district lacked a clear pedestrian center, people encountered these institutions at the speed of a car, undermining their effect. As such, the district was at odds with dominant conceptions of urban cores and civic centers that were forged both in postwar architectural culture and in the more holistic visions of the Jewish architects who were responsible for the civic cores and campuses designed in the first two decades after independence. Apart from Arieh Sharon, Joseph Werner Wittckover, who designed the Tel Aviv University Campus and Dov Karmi who was in charge of the design of the Givat Ram campus, were prominent.
mid 1960s, as well as the dominance of wide streets for vehicle transportation, have enhanced these conditions of a weak, building-based, civic representation.\footnote{Moreover, because the Kirya district lacked a clear pedestrian center, people encountered these institutions at the speed of a car, undermining their effect. As such, the district was at odds with dominant conceptions of urban cores and civic centers that were forged both in postwar architectural culture and in the more holistic visions of the Jewish architects who were responsible for the civic cores and campuses designed in the first two decades after independence. Apart from Arieh Sharon, Joseph Werner Wittckover, who designed the Tel Aviv University Campus and Dov Karmi who was in charge of the design of the Givat Ram campus, were prominent.}

Developed in the two decades after 1949 in parallel to postwar CIAM (Congrès Internationaux D'architecture Moderne) humanist revisions of the notion of the civic center and of urban monumentality, the Kirya differed from the more monumental spatial composition of Le Corbusier’s Saint Die or Chandigarh or the small scale pedestrian intimacy of the Rotterdam Lijnbann center designed by Johannes Hendrik van den Broek and Jacob Bakema.\footnote{For two of the more characteristics expressions of postwar humanist revision of the concept of monumentality, see: Giedion, Sert and Léger “Nine Points on Monumentality.” and Paul Zucker’s Princeton conference (1944). See Joan Ockman (1996) “Introduction” and preface to “Nine Points on Monumentality.”} The district ended up producing an urban form with unclear sense of scale. In this respect, it represented an understanding of institutions primarily devised at an architectural scale rather than within a coherent conception of their urban display.\footnote{Outside the scope of this chapter, the district’s later realized sections, in which the city promoted the development of cultural and private institutions, represent a synthesis of the lessons derived from post-war discussions of new “urban-cores” and mega-structural thinking not present in the buildings built between 1951-1965.}

5.2. Transitioning From International Style to Brutalism

5.2.1 Agricultural Cooperative Headquarters, from Functional Frugality to Abundance

Among the first headquarters to be erected in the Kirya and its immediate vicinity, the Farmers’ House was designed by architects Shmuel Rosoff (1900-1975) and the Agricultural Bank of Israel by Shulamit Nadler (1923-2016) and Michael Nadler (1921-1993) between 1949 and 1952. Similarly to other administrative and civic institutions
designed in this transitional moment between the 1940s and the early 1950s, the architects’ designs represented two versions of a transition from international style modernism to brutalism, a hybrid expression related to a transitional moment. In terms of their urban configuration, the two buildings portrayed relative conformity to a given urban grid, façade alignment, and simplicity of mass configuration. Architecturally speaking, functional simplicity also characterized their system of construction, their standards, and in part their prefabricated modules. However, in contrast to these shared characteristics with a wider body of work from this period, the designs also displayed a high-level of idiosyncrasy and experimentation in their rendition of these elements.

In these two buildings, experimentation and unique adaptation of repetitive modules and programmatic sequences also represented the architects’ efforts to meet the demands of agricultural cooperatives in the space of the city. To varying degrees the buildings’ reception and the architects’ reflections on their design also reflected this issue. Through broader use of décor and artwork and through playful experimentation with building solutions, these designs invoked rural pioneering. The inclusion of agricultural iconography made an analogy, through architectural ingenuity, between the

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418 This body of work was either built by Jewish architects who had studied abroad and immigrated to British Mandate Palestine in the 1930s, such as Joseph Klarwein, Alexander Klein, and Smuel Rozov. It was also in part formed by architects who, like the Nadlers and Avraham Yaski, had studied under Yohanan Ratner’s modernist pedagogical revision at the Technion and graduated during the first half of the 1940s. On the cohort of architects immigrating or returning to Palestine after architectural studies in Europe see Myra Warhaftig. The Laid the Foundation, Lives and the Works of German-Speaking Jewish Architects in Palestien 1918-1948, Berlin: Ernst Wasmuth Verlag, 2007). See also Gilbert Herbert, and Ita Heinze-Greenberg “Anatomy of a Profession, Architects in Palestine during the British Mandate The Search for Synthesis, Selected Writings on Architecture and Planning. Gilbert Herbert (Haifa: Architectural Heritage Research Centre, 1997). 75-85.

419 This aspect located these designs in a trajectory that historically led to what historian Zvi Efrat characterized as the highly systematic nature of the 1950s architecture. Efrat. Volume I. 88.

420 Information on the Nadlers’ commission is scant as the firm Nadler-Nadler-Bikson closed down in 2010 and its administrative folders and drawings have been lost. The late Shulamit Nadler’s private collection retained only photographs of the buildings. However, records suggest the commission of the bank from the Nadlers was in line with their professional trajectory, as by the late 1950s they had established a high-end institutional practice.
headquarters’ position in the urban environment and the pioneers’ position in the rural one. Likewise they challenged and revised the frugal credo that was articulated through the 1940s.

The designs for both the Farmers’ House and the Agricultural Bank of Israel reflected the transition, over the course of the 1940s, from the white-washed or plaster exterior typical of the 1930s International Style to marble and concrete paneling, which was often used on entire façades. The 1930s proportioning of envelope perforation and balconies, which served as a second skin, had given way to experimentation with the configuration of fenestration and with shading and brise-soleil systems, aimed at providing a cooler environment. During the 1940s and 50s, these elements were set within physical structures, which increasingly used skeletal structural systems and infill elements. Characterized by these general conditions of a transitional moment, the designs of the Agricultural Bank of Israel and the Farmers’ House also comprised a series of motifs, expressed in the forms of metal-work, paneling, or unique artworks that were applied to the surface and structure of the buildings. These motifs complemented a series of unique programmatic components—elaborate entrance sequences, gathering and dining halls—through which the buildings displayed the rural frontier.

The Farmers’ Union and the Agricultural Bank of Israel represented distinct types of institutions. The former, directed by Zvi Isekson (1889-1974), represented private

421 To apply these elements, the designs used one of the three strategies of integration of artworks analyzed by Jose Luis Sert’s writings. The two designs comprised of the “application” of commissioned works, punctuating given spatial intervals in a architectural design that was conceived independently of them. In other respects, the architects clearly devised synthesis of these elements themselves. On Sert’s discussion of strategies of artwork integration see, Mary McLeod. “The Chimbote Civic Center. ‘A Meeting Place for the People, ...A Meeting Place for the Arts.’”. Walls of Color: the Murals of Hans Hofmann. Kenneth E. Silver, Hans Hofmann, Mary McLeod. Authors. (Greenwich: Bruce Museum, 2015), 85.
farmsteads based in the old bourgeois towns (*moshavot*, meaning colonies). As such, the building represented a network that tied Tel Aviv with these old towns and their private cooperatives — Pardes, Pardes Syndical, the Farmers’ Syndical Bank, Paza, Adir, and the Hertzelya Citrus Growers. All of these associations used the Farmers’ Union headquarters, which was known as the Farmers’ House, in the Kirya as their urban base of operations.

The union was formed in 1920 and retained continuous operations after independence through two name changes. The union had ties to the Jewish right wing movement, Revisionism, and promoted capitalist activity in the field of agriculture and settlement. This cooperative differed from the Federation of Jewish Workers in its emphasis on the legitimacy of hired labor (against the latter’s ideology of Jewish self employment). Unlike the Farmers’ Union, the Agricultural Bank of Israel was a governmental agency, whose foundation in 1951 was promoted by economic agronomist and labor activist Haim Halperin (1895-1973, figure: 5.19). It was designed as a subsidy mechanism for new agricultural settlements of all political factions and for agricultural related industries in Israeli new industrial towns. The Bank’s foundation was paralleled by Halperin’s writing on and promotion of policies related to regional cooperation, which emphasized state subventions and credit for local and inter-regional cooperation.

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422 Founded in 1878, during the first and second waves of Jewish immigration (i.e., until 1914) the majority of members resided in the *Ha’Sharon* coastal region.

423 Within the setting of the Kirya district, the Farmers’ Union Headquarters affiliation was similar to Zionist institutions such as the Bnei Brith Covenant Center and the American Zionist House. These two institutions were located across the street on Kaplan Street and at the western edge of the district on Iven Gebirol Street respectively.

424 Halperin served in the 1940s as the director of the Agricultural Union Cooperative, which was closely related to the circles of the governing labor movement (*Mapai*) and the General Federation of Workers (*Ha’hystadrut*). He leveraged this position to become of the first general director of the Ministry of Agriculture (1948-1950) and, later, in a key role in the Agricultural Bank.

425 It collaborated in this capacity with the Jewish Agency and the Ministry of Housing regional cooperation and development project. See discussion in chapter 3 and 4.
agricultural industries (figures 5.20, 5.21). Accordingly, it promoted a neutral anti-class based or sectorial approach.⁴²⁶

### 5.2.2 The Farmers’ House: Staging a Civic and Bounteous Pioneering

Just as the Nadlers’ bank design had been, Rosoff’s design of the Farmer’s House was clearly distant from the credos Sharon invoked in his discussion of cooperative urban institutions in *20 Years of Building*.⁴²⁷ Blunt simplicity evoking frugality or arduous beginnings was not discernible. Sharon’s ideas about functional design had no noticeable influence. Rosoff’s design, as well as the Nadlers’, displayed an affinity with the architectures of Josef Hoffmann, Otto Wagner, and Jože Plečnik. This affinity was evident in the articulation of cladding, structure, and program and a stricter adherence to a given urban structure (figures 5.22-5.26, 5.27-5.32, respectively).

The Farmers’ House constituted a symmetric cubic mass organized around a central court and extending over five floors.⁴²⁸ Its façades alternated between concealed and revealed interior programmatic components. Rather than an inside-out display of interior functions (e.g. aspect proclaimed by Sharon’s 1930s-40s functionalism) the façades of the Farmers’ Union headquarters were determined by the demands of a building set in an urban condition: the establishment and relative neutrality of street

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⁴²⁶ While of distinct institutional affiliations — more private and the public (statist vs. socialist) sectors respectively — these two institutions were sharing facilities and were attached to interconnected personal-administrative networks. For instance the former directorship of the Farmers’ Union was physically based in the Agricultural Cooperative Union, which was the Federation major Agricultural Cooperative organization, under Halperin’s direction during the 1930s.

⁴²⁷ Born in Saint Petersburg and trained as an architect and engineer from 1917-1922 in the University College of London, Rosoff immigrated to Palestine in 1924 where he established a private practice in 1930 in Haifa. Unlike the Nadlers (and Sharon and Eidelshon), who built for the Federation’s and the state sub-organizations, Rosoff’s family ideological alliance with the right wing revisionist movement resulted in a series of commissions that he received; among these were the headquarters of the federation of the citrus marketing board in Tel Aviv (*Hitachdut Ha’pardesanim*, 1956-1959) and its open market in Haifa.

⁴²⁸ The use of an enclosed court itself testifies to a turn away from aspects identified with the functionalist city (closer to the repertoire of the Federation) as it was codified in the 1933 Charter of Athenes. Such a feature would emerge in Sharon’s Mediterranean climatic approach only in the second half of the 1950s.
fronts, and legible entrance and parking sequences. Against these more neutral features, the design featured decorative elements and art works. These characterized specific programmatic components as reminiscent of a rural territory.

Bank and office spaces were the major elements of both the Farmers’ House and the Agricultural Bank. The Farmers’ House also provided an assembly hall, library, and a restaurant. Using a solution that Otto Wagner had used for his postal savings bank in Vienna (1906), the Farmers’ Syndical Bank occupied the central portion of the building at ground level. Above the bank, covered with a translucent roof that allowed natural light into its front-desk hall was empty space, an open court. Along the ground level western façade that faced the interior, quieter portion of the urban-block, Rosoff located the syndical assembly hall for 142 men (figure 5.33). It was concealed behind a wall made of concrete octagonal hollow tiles. The farmers’ restaurant was located along the eastern façade, facing the street so it would have better light (figure 5.34). These two public functions were made more visible to the outside, in their distinction from the repetitive office areas, by their similar treatment in concrete hollow tiles. Similarly to the treatment of the syndicate bank, the farmers’ library located on the second floor between court and the main façade, was concealed behind the same system of fenestration serving the office spaces (figure 5.35). The representative aspect of these programmatic components was predicated on decorative features—wooden cladding, and orange tiles and wall paint—located at the core of the composition and unseen at the level of the street (5.33, 5.34, 5.34).

This shading and visual filtering device was a Jewish version of the North African and Mediterranean typology and motif of them (mashrabya). Usually made of light lattice-like fabric it separated the public realm from the intimate domain of the Muslim residency. In its multiple concrete versions it became a common feature of 1950s residential architecture in east Tel Aviv.
Rosoff understood the task of rural representation, primarily through aspects of décor and ornamentation. He viewed these as operating at the level of the street façade, which resonated with surface treatment in the major interior spaces. Unlike the shading systems that characterize the subject of the next case study, Rosoff’s work on the Farmer’s House took a tailored experimental approach to climatic issues. These solutions were reflected in the use of a central court, hollow-brick façades, vertical concrete tiles cladding the opaque portions of the façades, and the eastern and western façades. These façades had a folded surface, enclosing interior personal office niches (figure 5.37). They turned diagonally to north, east, and west winds and incorporated adjustable wooden curtain. This atypical approach to solar protection served to make the façade into a representational device of both urban order and climatic efficiency. It also toned down the major sections of the façade, and framed the more unique moments that incorporated iconographic markers of the frontier (5.24, 5.25, 5.26). While in itself, Rosoff’s concern with experimental solutions to solar protection pertained to his longer-term interest in this matter, Rosoff’s reflections on the design (discussed further down), emphasized an holistic approach according to which these solutions became part of the display of a pioneering spirit in the city.

On the eastern and western façades, the vertical concrete tiles coated opaque edge strips running the entire building height (figure 5.22-5.24). These correlated with and complemented the edge conditions at the ground levels of the northern and southern façades. They shaped pillar-like building corners, solidly seated on the urban ground and strengthening adherence of the building mass to urban alignment regulation. These pillars

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430 Rosoff would later register this solution as a patent. See discussion in Efrat, Volume I. “Shatters”.

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also framed an entrance alcove at the main Northern façade (and parking area at the opposite façade, figures: 5.37-5.41).

From this front façade alcove and into the lobby, more visible features evoked the frontier. Originally colored in light green, the alcove was set adjacent to the main entrance lobby that was originally painted in an orange pigment. Wheat motifs in the fences delimiting the alcove’s low flowerbeds and window grates complemented this color scheme. They developed a similar motif to the colored golden reinforced-concrete windowsills in the Agricultural Bank ground level. In both designs these motifs were inserted in regular intervals and created from metal or concrete (5.31-5.32, 5.37-5.39). They featured the agricultural image in the interface between the building and the urban ground, giving the impression of rootedness.\textsuperscript{431} The refinement of these motifs further distanced these designs from frugality and hardship. Instead they portrayed pioneering as civilized mission, extravagantly depicted in the civic realm.

The Farmers’ House interior lobby, which led to the bank, assembly hall, restaurant, and main vertical circulation contrasted with the opulence of the exterior lobby and front alcove. Its vivid orange evoked the fruit that, like dairy production, was a major emblem of the conquest of Jewish agricultural labor in Palestine during the second wave of immigration (1904-1914). It also resonated with the major citrus economy of the Jewish capitalist settlements’ (moshavot) that were represented through the Farmers’ Union association.

\textsuperscript{431} The administrative section of the architect Joseph Klarwein design for the Dagon Wheat processing plant in Haifa, inaugurated in 1952, exhibits similar use of agricultural figures at the ground level, albeit in a rougher rendition.
The imagery of rootedness culminated in the interior lobby with a wall mosaic framed by and decorating the first landing of the principle staircase (figures 5.42, 5.43). The mosaic depicted an olive tree bounded by a homothetic amorphous framework of an organic wave-like motif. The bottom of the mosaic included a quotation by Moshe Smilansky, a Russian-Jew Zionist leader who was identified with the federation of the capitalist settlements: “In the place where agriculture is, homeland is.”

5.2.3. Reception and Reflections on the Farmer’s House Design

The Agricultural Bank appeared on the front cover of the bank’s annual reports (figure 5.44); Rosoff’s design for the Farmers’ Union appeared in the Journal of the Farmers Association and reviewed in daily newspapers, where it touched off more spirited accounts (figure 5.45). However, the professional architectural literature of the day ignored both. The license both designs exercised in matters of civic representation may have prompted this lack of interest.

The Farmers’ Association journal announced the inauguration of the Farmers’ Union headquarters in September 1952, displaying a photo of the structure with a caption from the Bible and a technical description of the building. The caption read: “And they planted Vineyards and drank their wine, and made gardens [ganot. archaic plural form for garden. m.h.] and ate their fruits, and I [God. m.h.] have planted them on their land.” This religious framing, as well as the suggestion of abundance through agricultural labor, resonated with the artwork and décor that adorned the building’s entrance alcove and exterior lobby.

__432 Applied mosaic was not foreign to administrative headquarters built in this period; for example the two neighboring administrations for the journalist and the writers associations had applied mosaic that was less figural in nature.__
The daily newspaper *Ma’ariv* reported on the inauguration of the Farmers’ Union headquarters in September 1952. Appraising the design, the report highlighted figuration and formal measures: the elegant entrance alcove with planters and wheat motifs, the “surprising” orange-like features of the dual inside/outside paint coating (here the journal used the Aramaic expression *Malber...Malgo*...). These indications of the figuration, mythical, and metaphorical representation and formality of the design were at odds with functionalist values of organizational transparency. Agreeing with Rosoff’s own description of the design, the journal distanced the building from the functional credo Sharon asserted for urban cooperative public institutions. The newspaper comments also testify how distinct was the design from the logic of crude functional standardization and transparency that characterized historian Zvi Efrat’s notion of the 1950s architectural grayness.

**5.2.4. Farmers between Civic Centers**

Two letters Rosoff wrote during the design and execution phases of the Farmers’ House suggest that he saw the atypical design, decorative, and climatic approach as part of the unique territorial and cultural expression of the Union. More specifically, he understood the coordination of these elements, as part of the building’s position in relation to overlapping frameworks of reference that were based on distinct urban and rural centers and the institution’s task of civic representation. These letters reveal that Rosoff and the Farmers’ Union design commission concurred as to the overall theme the

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Farmers’ House should project, but that they did not agree as to the means and level of expression of this theme.

In a letter dated April, 14, 1953 addressed to the city municipality, Rosoff requested additional rights for construction on the building’s roof (figure: 5.46). His attached elevation scheme acknowledged the legibility of the building’s symmetrical configuration within the scope of Tel Aviv’s two urban cores—the Ha’bima cultural center (defined in the Geddes plan and indicated by: “to the right”) and the Kirya governmental district (“to the left”). While formulated within a pragmatic context of negotiations over construction rights, the scheme captured the dual setting of the building as an administrative cultural institution.

In a letter dated December 5, 1953 addressed to the Farmer’s Union commission committee directed by Eliahoo Izekson, Rosoff disagreed with the committee’s decision, after long hours of negotiations with him, to substitute the concrete panel cladding for a simple plaster finish. Rosoff further questioned the institution’s judgment with respect to a holistic bracketing of the building’s material details and technical solutions:

I am convinced that this cladding is well formed (mutzlach betzurato), gives a character to the slick and solid mass of the house and creates a fabric that is pleasant to the eye, something that is particularly fitting to the climate of our country, as smooth surface area is tiresome to the vision. [figure 5.24, my translation] Rosoff describes the climatic rationale and a version of machinist functionalist aesthetics (the “slick and solid mass”) as congruent with representational implications as well as the building’s character and visual effects. In this description, character is associated with a

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434 The building according to the preservation survey included 4017 prefabricated concrete cladding panel, in 9 models. These were fabricated in the Merzafia factory. The commission minutes indicate deliberation on the origin of the sand used for the façade (the southern city of Eilat or international export) and raise also a question as to their original color. While the Ma’ariv report on the inauguration indicates a light grey color, and the actual building is characterized by a light pink.
partial aspect of the building, with its climatic cladding, and experiential effects of finish materials.

Rosoff also argued for the acceptance of standardized yet tailored details by pledging the significance of realization of the architect’s vision of the building as a coherent unity (“all forms into a single unit in the architect’s imagination”, “Hakol mitchaber le’yehida ahat be’dimiono shel ha’architect”). As the letter continues, this last term stands, on the one hand, for a modernist assumption as to the determining effects of the plan on “the elevation, length, height, width, color and material – all forming one unity.” These statements, which pertain to technical aspects of design (e.g. correspondences between architectural drawings), also betray traditional assumptions as to the organic or gestalt-like quality of the architectural configuration. As Rosoff further indicated, these comments relied on a seed-like metaphor regarding the sources of design-intentions. In this respect the standardization of construction materials and modules were still related to an understanding of the building as a complex yet unitary system of relationships. These relationships connected and mutually determined subcomponents, rather than a technicality or functionality of an envelope solution and rationalization.

More precisely, Rosoff claimed that the way the design fostered a relationship between Tel Aviv’s urban façades and physiognomy (associated with the extension of the Kirya street into the city’s major commercial artery Dizingoff) and a frontier-based pioneer spirit ascribed meaning to this structure as a whole:

What are you willing to build – just another house on Dizingoff street that one will have to search by the street number – as it resembles in its external form “every house,” that does not call for pedestrian attention, that lacks character and self
esteem – or, you that wish to build the “farmer-house” that is the fruit of original thought that dares move in the path of experimentation and novelty – an aspect that is fitting precisely for men of the pioneering initiative. Do not bear in mind any external and temporary factor and take into account only the value of the building as the place of your work, your meetings – as a part of a city that is being built around you and your building is a contribution to the design of its physiognomy. [dmut ha’yir, literally “city figure” m.h.]

The letter further sets the horizon of the building in the context of a larger cultural territory of Israel, resonating with technique, aesthetics, and social urban entrepreneurship. It combines progressive modernism with the labor ideology of an innovative, future-oriented, and activist self-image. However, rather than the reference to bare necessity, or biological calculations (such as appear in 20 Years of Building), Rosoff’s comments were metaphorical and suggestive. Connecting architectural labor and pioneer labor, they also echo the images of productivity that the reports on the building’s inauguration capture. His comments related the single unit of architectural creation, the “fruit” of the Union’s administrative and directing thought with the right measure for the union’s urban work-place. Such a combination operated here not as a reference to a pre-established (standardized) or reified etiquette of de-localized or “statist” functionalism (to paraphrase Efrat’s notion of grayness). Rather, Rosoff’s comments invoked a sought-after performative, localized, and concretely tailored work in the making.435

5.3. The Civic Modernism of the Jewish Agency

5.3.1 Administrative Design at the Nexus of the Co-op and the State

The Jewish Agency for Israel headquarters, designed by Sharon with Benjamin Eidelsohn, was located diagonally from the Farmers Union’ headquarters at the southern

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435 Rosoff’s comments in this case use a similar logic to what David Leatherbarrow and Moshen Mostafavi described in terms of a situational performance of architectural elements, Surface Architecture (Cambridge: MIT, 2002), 70.
end of an urban block, which would also house the Agricultural Civic Center and the National Kibbutzim headquarters after 1968. By 1952 Sharon’s urban plan for the district was already segmented and compromised. The design was inscribe within a new rectangular urban block that was defined between two of the new east-west streets entering the city. In this context, the design called for a doubly oriented six-story longitudinal cube, stretching as a single volume over 75 meters long and barely 13 meters wide. The building’s principal southern façade along Kirya Street occupied the entire width of the urban block. It formed a neutral yet hierarchical skeletal system of a concrete grid with thin louvers (figure 5.47, 5.48, 5.49).

In its single prism shaping an entire urban block and its non-washed concrete, gridded façade, the design was continuous with Sharon’s pre-state and post-independence practices. It joined his ideas about the coordination of design and planning, which he pursued through social coop housing in the 1930s, with the fuller realization of this ideal in Sharon’s work for state agencies after independence. This characteristic of the design also made it in part exemplary of what historian Zvi Efrat described as gray and serial architecture of the state.

The Jewish Agency headquarters, through coordination of architectural an urban design, communicated a version of Sharon’s notion of comprehensive planning and design. He referred to his 1930s experiments in co-op social housing in Tel Aviv as a first

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436 The Jewish Agency relocation to the outside the Yehoshua military camp in the Kirya was part of a larger history of struggle as to the status of the Templer Colonies’ land between the city municipality and the government. The Jewish Agency headquarters were designed to group together separate offices that Ben-Gurion had allocated to the institution within the precinct of the Yehoshua camp in the first half of 1948. This can be inferred from a communication between the city mayor, Israel Rokach, and Prime Minister David Ben-Gurion, in which Rokach argues against the transfer and appropriation of offices spaces within the army camp by the Jewish Agency in particular, Mann, 45-6.
move in this direction (figure 5.50). According to Sharon, designs of co-op civic institutions (public buildings) in the 1930s were not allowed such coordination, as the city regulations did not stipulate setbacks or the conditions of visibility and distinction between the residential fabric and the urban institutions.

This design exemplifies aspects of Efrat’s description of grayness and of a notion of comprehensiveness, making it an ideal-type of an accomplished functional standard that operated both as architectural and urban design. As described in chapter 3, Sharon considered this standard to have been impossible in the pre-state period. That such an effectively coordinated expression of functional standardization occurred in the design of the Jewish Agency also resonated with the agency’s position as a quasi-state organ after independence, based on its pre-state role in rural development and cooperative planning. As such it could seemingly conform with standards of design devised outside of any specific site (to further paraphrase Efrat’s description of statist gray architecture). However, as this analysis will suggest, behind the high level of standardization, the design portrayed an ongoing adaptation of standards. These were in part circumstantial, and related to conditions of siting, urban context, and the institutional setting that was

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437 Beginning in the mid 1930s, Sharon, together with the Tel Aviv circle of architects, and informed by the 1920s German regulations of social housing in Frankfurt, promoted the Confederation of Workers’ social housing, among other goals, as a means of attaining a metropolitan scale through the fusion of several parcels. With these new measures they sought to challenge the scale and lack of coordination in the development of the Geddes plan, which he had criticized for its petit bourgeois garden city-like character. See Sharon, Kibbutz + Bauhaus, Chapter 3.

438 Sharon, "Public Buildings.,” 20 Years of Building, xx.

439 This argument should be qualified by the fact that the different planning authorities within the Jewish Agency were not all involved in the definition of the Kirya district layout, and the section coordinating with the Ministry of Defense over the development of the urban district was most likely not directly involved in the definition of the Jewish Agency’s building design. For the involvement of the Jewish Agency planners in the Kirya planning, see Near Mann. Vol II. 259. An illuminating account of the institutional configuration of planning agencies in the first four years of independence is found in Ruth Kark, ibid. Sharon corresponded on the design with D. Raiser, who was the director of the Jewish Agency branch in Tel Aviv. In Azrieli Archive, Jewish Agency Commission Folder.
previously developed in the district. In part these adaptations provided expressions of and collaborations in design that were based on Sharon’s broader engagement with the cooperative institutional network that was associated with the General Federation of Workers.

Sharon and Eidelson attained the commission for the agency headquarters through an open competition.440 Sharon’s 25-year acquaintance with the General Federation of Jewish Workers administrative networks, and by extension his design practice for the Federation’s associated cooperatives institutions, proved useful for their firm and this project. This engagement led to major housing, institutional, and less representative technical facilities, which were commissioned after independence by the Federation and its sub-cooperatives.441

In physical proximity to the Kirya, Federation-related commissions included the Health Fund Headquarters (also known as the Solel Boneh tower, the Confederation’s construction, and infrastructure company) and the Beit Lessin Theater in 1956, the Workers’ Bank in 1959-1963 (figure: 5.51, 5.52), the Ha-mashbir Ha-merkazi co-op headquarters and storage facilities (distribution co-op of agricultural produce and machinery) in 1956-1963 (figure 5.53, 5.54), and the Yachin Hakal Citrus Produce cooperative headquarters in 1963-1969 (5.14).

440 Their partnership resulted from Sharon’s search for a partnership, which would allow him to concentrate the major portion of his time on directing the planning division in the Ministry of Labor, in Kibbutz Bauhaus, Chapter 6. In the case of the Jewish Agency design, the commission folders in the Azrieli Archive include only Sharon’s personal signatures over all documents related to the design, an element indicating both the scale of the design and his level of involvement in it. While he maintained his role as the head planner in the Ministry of Labor only from 1948-1952, Sharon was also still sitting on the directories of the planning section after his departure from the national planning department until the 1970s. See Kibbutz+Bauhaus, Chapter 5.
441 This association followed Sharon’s winning entry for the Confederation pavilions design competition for the Fair of the Levant (1932). However it should be traced back to his years in the Kibbutz of Gan Shmuel and encounters with leading directors of the Federation’s cooperatives. See discussion in chapter 3.
As seen in chapter 3, Sharon’s 1930s and 1940s work for the Federation also led to invite him to take a primary position in state planning and commissions. These included his role as head of the first national planning section in the Prime Minister’s Office (1949-1952) and in commissions for campuses and building designs for hospitals (Bellinson, Rambam, Soroka all from the second half of the 1950s), universities (the Technion forum and the IFE campus in Nigeria), as well as several social housing commissions that represented Sharon’s broader engagement in new town planning (see discussion in chapter 3).

Architecturally speaking, a new level of plan rationalization, façade standardization, and measures related to urban planning characterized Sharon’s commissions, including the Jewish Agency headquarters. The number of commissions demanded a certain level of standardization. It also served to communicate the firm’s role as a service provider operating between two public sectors—the cooperative institutions associated with the Federation and the emerging national welfare system (figures 5.55-5.56, 5.57-5.60). The skeletal brise-soleil façade and its reinforced concrete treatment of the Jewish Agency closely resembled Sharon’s and Eidelsohn’s design for the Federation’s Workers’ Bank (Bank Ha’poalim, figure 5.51, 5.52) as well as. These two designs made an overt allusion to the Ministry of Education and Public Health in Rio (1936-1943) (figure 5.61, 5.62).442

442 The Rio building design was the result of a collaboration between Lúcio Costa, Carlos Leão, Jorge Moreira, Oscar Niemeyer, Affonso Eduardo Reidy, and Ernani Vasconcelos, with the involvement of a painter, Cândido Portinari, and a landscape architect, Roberto Burle Marx, and Le Corbusier. A letter from Eidelson concerning alterations of the tender contract suggest he and Sharon were aware of the Rio precedent through its use in the Givat Ram Jerusalem campus. Letter 29.7.1958, Box 965.00.431, Arieh Sharon Collection, The David J. Azrieli Central Archives.
While many of the firm’s designs in this period used the same window modules, structural systems and grid plans, and finishes, they also reflected adaptation to purpose and site.\textsuperscript{443} The Sharon and Eidelsohn firm hence frequently renegotiated standards, and exchanged and adopted them across institutional designs commissioned for these two public sectors. In this respect, the firm’s architects played a lead role in devising the idioms of Israeli 1950s landscapes. However, at best, these designs and standards were ideal types. They were not particularly identified with a specific institutional sector, identity, or agenda. Nor were they fully removed from the premises of unique settings or publics.\textsuperscript{444}

5.3.2. Brutalism Across Modern Urban Precedents

The use of floor slabs divided by thin concrete partitions that formed vertical window modules with three slender louvers in their upper section in the Jewish Agency echoed the technical solutions, fenestration proportion, and general façade grid of the Rio Ministry of Education and Public design.\textsuperscript{445} In addition, the design reflected the influence of Brutalism, which increased in Israel through the second half of the 1950s.\textsuperscript{446} As

\textsuperscript{443} This duality between modern systems of fabrication and circumstantial, figurative, and symbolic adaptation is at the center of Leatherbarrow and Mostafavi analysis of the drama of modern façade design. See in particular their discussion of Richard Neutra and Ludwig Mies van der Rohe. (2002) 156, 200.

\textsuperscript{444} These two aspects, of standard rigidity and autonomy relative to site and context “mass produced” series, are at the basis of Efrat’s analysis of Sharon’s work in this period and more broadly of gray architecture. In Efrat. “Gray”. Volume I.


\textsuperscript{446} At least three other buildings in the vicinity of the Kirya district, Sharon and Eidelson’s Malban building (1956-1959), the IBM building (Avraham Yaski and Alexandroni, 1978), and the new municipality tower (Menachem Cohen, 1965), were also Brutalist. Sharon and Ideslon also used the model for their aborted project for the Ministry of Finance.
historian Zvi Efrat has noted, Israeli Brutalism developed against the background of multiple variants of post-World War II Brutalism. It differed from the socially critical British Neo-Brutalism of the same period and from the more ethical aesthetics, expressive of the involvement of manual labor that was commonly attributed to the São Paulo Brutalism.

The Rio building module and the turn towards the brise-soleil and solar reasoning in the Brazilian architecture of the 1950s were influential on the Israeli architectural culture, and the Tel Aviv context in the 1950s more particularly. Historian Or Aleksandrowicz has shown how this thread of influences involved both formal imitation and experimentation with façade solutions that addressed the issue of solar protection within local circumstances and techniques. Historian Sharon Rotbard, noting the role Le Corbusier’s turn to Bruralism in the 1950s has played in the local design arena, claimed that in its Israeli transposition Brutalism in the 1950s maintained a less plastic and expressive rendering, than the one found in the work of Le Corbusier. It disclosed instead a more simple, modest and straightforward characteristics.

The adaptation of the Rio precedent through the Jewish Agency design transposed the precedent in the mass configuration and the relations between components of the building. In the Rio model, the vertical reinforced-concrete partitions of the gridded façade distinguished the elevated and homogeneously rendered building body from a purist volumetric treatment of the top of the elevator shaft and other such apparatus on

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448 This in great part defines what Rotbard identifies as an Israeli “concretness” (designating matter-of-factness and simplicity). Rotbard. *Avraham Yasky, Concrete Architecture* (Tel Aviv: Babel, 2007). 487.
the roof. The Rio building also distinguished the main building mass from the open environment at the ground level lobby and public space integrating large-scale murals. This formed a differentiated system of components (public open base, regular gridded body, purist couronnement or head).

By contrast, Sharon and Eidelsohn presented a blander, as well as mechanically simpler version of the Rio grid (figure 5.47). The Jewish Agency grid’s reached the ground level and the top horizontal edge. Sequenced by the floor-slabs and repartitioned by a 1.55 meter module span, it uniformly disclosed the institution’s major departments: economy, settlement, social integration, water planning, and security. The 1.55 meter module span, which Sharon systematized in this period in his office designs, was predicated on a one-worker 70 cm table interval understood to be facing a window and the additional width of vertical concrete partitions.

The non-visible arrangement of the institution’s departments behind the façade, resulting in a unique programmatic volume, differed from Sharon and Eidelsohn’s functional reasoning in master plans and build designs from the same period (figure 5.63, 5.64). Whereas they provided unique volumetric treatment of different functions in other projects, the Jewish Agency design had no such distinctions. This could reflect the architects’ understanding of the institution’s program as uniform in its contents, and

449 This was the case also in the volumetric and programmatic articulation of the Workers’ Bank design.
450 See “The Building of the Office of Finance, Tel Aviv. Arieh Sharon and Benjamin Eidelsohn architects.” Handasa Veadrichaklut, The Journal of the Association of the Architects and Engineers. Vol 1, 1961. 45. According to the architects, the system allowed variability administrators rooms could be defined with two modules and directors with four. Box 965.00.431, Arieh Sharon Collection, The David J. Azrieli Central Archives and Israeli Research Center for Architecture. The program also stipulated a boardroom to accommodate up to 50 people and disguised behind the neutral envelope. However no evidence of this component currently exists in the building. Aleksandrowicz has analyzed the longer process of adaptations and solar protection patents that were experimented during the 1950s and the 1960s. Ibid.
involving minimal differentiation among the groups it served. It also conveyed the institution’s sense of simplicity and matter of fact understanding of the organization.\footnote{In this stricter administrative function and appearance, the Jewish Agency was closer in programmatic terms to the Agricultural Bank of Israel and the Workers’ Bank. These three designs were distinct in this sense from the Farmers Union headquarters’ more cultural and social aspects.}

Roughly, programmatic differentiation in this design was part of the reductive gestures of functionalism such as Efrat and Rotbard described. The main façade was only interrupted by the canopy marking the lobby and entrance sequence (figures: 5.65, 5.66). Contrasted with the openness of the façade, the building’s lateral façades were relatively opaque. Their division by a row of windows corresponding to a central corridor at each office floor rendered the interior floor organization legible.\footnote{While the configuration was typical of administrative architecture from the late 1940s the Jewish Agency headquarters was more radical than Alexander Klein’s governmental offices in Jerusalem or Munio Gitai Weinraub’s Hadar Business Center in Haifa in terms of program and urban configuration, as it comprised a singular volume and a unique urban scale.} As such, the design offered a clear and simple dual system: a general work-place setting, punctuated by an urban interface and spaces of circulation and socialization.

5.3.3. Functional Differentiation: Between Formal Systems and Publics

The Jewish Agency headquarters design sought an internal system of differentiation within a functional standard, through façades composition and spatial and urban configuration. It created associations between the immediate urban surrounding and conveyed meaning and character both to the institution and of the civic space. As this section will describe, internal differences communicated a restrained but not fully silenced expression of the rural frontier.

The lateral façades did more than display horizontal circulation. They reflected a continuous dialogue with the neighboring Viennese cladding-based modernism that characterized the same transitional moment evident in Rosoff’s design of the Farmers’
House. Sharon and Eidelsohn’s design substituted reinforced-concrete mold patterns for stone and concrete cladding, which were typical of the transitional moment. These patterns repartitioned the strips between the floor slabs and presented a sheathing motif in the lateral façades (figure 5.47, 5.48).

Where the Rio Ministry of Health brise-soleil façade had an aerial and open character, the Jewish Agency, like the Farmer’s House, had smaller windows that created less openness, reminiscent of North European modernism. This also led to an expressive presence of the concrete slabs and the vertical partitions. The façade therefore had a more graphic and plastic effect than the blurred expression of the Rio façade. This hierarchy between the horizontal and the vertical sections of reinforced concrete and the asbestos louvers enhanced the effect. The reinforced concrete sections, the louvers and the areas between the opaque windowsills did as well. The black ceramic tile window-sills threw the skeletal system of the façade into greater relief.

The arrangement of the major entrance sequence and lobby also affected the character of the major façade. They were located off-center within the distributive core of the building, as is typical in modernist administrative design. Reached by two flights of stairs from the street level, the lobby was anteceded by an exterior podium covered by the thin concrete canopy (figure 5.66). Three white metal poles on which hung the national flag delineated the southern edge of this podium. Rather than conforming to a rigid and characterless protocol (“grayness”), this off-center arrangement and the openness of the

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453 1 meter height by 35cm long in the Workers Bank and 40cm long in The JA.
podium space, together with the flags, mixed the formal and ceremonial with casualness.  

Inside the building, the entrance sequence corresponded (in plan) to a horizontal and vertical circulation core on each floor. At the ground level, this core formed a transversally transparent waiting area (turning to both southern and northern façades). It was in spatial continuity with the lobby, which stretched over ten modules of the façade and the institution’s dining hall (figure 5.67). As in the other institutional headquarters Sharon and Eidelson designed in this period, the rectilinear profiles of the columns were used for the upper office floors, turned at the ground level into round-section columns painted white.

Departing from the repetitive structural system that the architects have relegated to the administrative upper floors area of the building was a situational adaptation of the physical structure to the circumstances of the ground level reception area. Together with the larger white wall segments in the lobby, these round columns created an abstract-spatial vocabulary. Like the non-washed reinforced concrete sheathing effect at the lateral façades, and the character of the entrance sequence, the reception area conveyed both formality and casualness through openness to the public and continuous space flow.

454 A more intransigent rational reasoning would place the distributive core in the center of the façade and plan. Similar minimal programmatic and volumetric accommodation (what would fall under discussion of distribution and partit) in the northern façade is the utility core (including wet rooms – floor restrooms and kitchenette - and the vertical circulation – staircase and elevator) lightly protruding at the back façade and in a rough manner defining an urban motif shared throughout the domestic 1930s architecture in Tel Aviv.

455 Typical of the 1950s offices floor layouts, this space is duplicated at the upper floors, broadening the central corridor and providing space for informal encounters. A similar organization is found, for instance in the Tel Aviv Trade Union headquarters (1949-53) and the Tel Aviv Municipality Building (1955-1966). The JA lobby transversal transparency also suggests the architect’s anticipation that the urban block would have a higher level of architectural definition in its interior than the profusion of parking spaces that followed.

456 One the upper floor the rectilinear skeleton profiles were submerged within the partition walls dividing the office space. Similarly, the columns shifted to a circular profile in the smaller waiting area adjacent to the distributive core at the upper levels.
The integration of one-off built-in wall relief by the Israeli artist Bezalel Schatz also struck a balance between a formal yet inviting atmosphere (figure 5.68).\(^5\) It made the dining hall area distinct: spanning the wall that formed a backdrop for the dining area, it invoked a visual apprehension that is not object oriented.\(^6\)

The relief was one of many idiosyncratic features the architects introduced into co-op and state institutions. Artists such as Schatz were increasingly involved in the design of public institutions in the period, and Schatz had particular influence following his return to Israel after 15 years in California.\(^7\)

Schatz’s relief for the Jewish Agency lobby consisted of straight and bent thin metal sections, painted in black and welded together as an airy skeletal composition suspended 4 inches off the wall. It assembled a *menora*, stars of David, flowers, sun, and a nuclear family — representing Judaism, agriculture, and kinship — into a continuous, horizontally-spread configuration of geometric forms. The relief was primitively figurative and corresponded to what art historian Gideon Ofrat described as the artist’s 1950s archaic ideograms.\(^8\) Compared with the naïveté of rural iconography of Rosoff’s

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\(^5\) Bezalel Schatz (1912-1978) — the son of the founder of the Bezalel Academy of Arts and Design in Jerusalem (1906) — was long seen as a prodigious child of Israeli art.

\(^6\) Moshe Gordon, the director of the JA publishing house (the Bialik institute, from 1934-1969) commissioned the design and was involved in the exchanges between Sharon and Schatz over the localization and definition of the wall relief; Sharon who had collaborated with Schatz in the Workers’ Bank lobby design, had advocated for his role in the project, The David J. Azrieli Central Archives and Israeli Research Center for Architecture, Arieh Sharon Collection, Box 965.00.431. Schatz also collaborated with Gordon on a book cover design for the Zionist Administration book publishing house *The Bialik Institute*. Ofrat. 42. The Jewish Agency commission folder also indicates Sharon’s advocated for retaining Schatz even though in delivering the sketches and final designs led Gordon to consider cancelling the commission.

\(^7\) Schatz provided reliefs for Zim (an Israeli boat company, synagogue and cinema) in 1956, the public reception hall in the *Worker’s Bank*, the Tel Aviv court house wall reliefs (1965), the Yad Va’shem holocaust memorial (1965) and the President’s Residency gate design (1970). See Gidon Ofrat. “Introduction”. *Bezalel Schatz 1912-1978*. [in Hebrew] (Jerusalem: The Artists House, 2006). He was part of a body of in-house artists, parallel to the cadre of in-house co-op architects, who Zionist and co-op institutions commissioned to design, illustrate and decorate architectural spaces and other media in the 1950s. To a large extent affiliated with the group of the “New Horizon,” this group also included Aharon Kahana, Dov Feiglin, and Tzvi Gali.

\(^8\) Ofrat. 85.
and the Nadlers’ designs, Schatz’s relief provided a slightly more abstract, and sophisticatedly naïve rendering of the rural frontier.\textsuperscript{461}

These more nuanced measures of adaptation of a Brutalist functional standard failed to capture the attention of the local professional discourse. Professional journals, such as \textit{Tvai Ot} only mentioned the headquarters briefly to critique its rigid, “non human” and bureaucratic circulation and civic appearance.\textsuperscript{462} This criticism paved the way for Zvi Efrat’s 2004 inclusion of the design in his argument about grayness (figure 5.69).\textsuperscript{463}

As discussed in chapter 2, the Jewish Agency’s 1927 design by Yochanan Ratner garnered the praise of Israeli architectural historians and critics (particularly Elhanani and Hashimshoni) as a modest and functional civic composition (figure 5.70). They considered the design a foundational moment in the early local histories of a modernism. By contrast, the 1963 headquarters Sharon and Eidelsohn designed, gained little positive reception as a design for public building. Its historiographical retrieval through Efrat’s more positive account recovered its role as a symbol of a system of functional building of the state. In light of this, this case study has sought to bring additional nuance to the understanding of the modalities of adaptation of such functional design, which defined a

\textsuperscript{461} Schatz’s vocabulary also diverged from the depictions of the frontier and the pioneer found in integrated artworks in the Federation headquarters by Yohanan Simon, which were informed by Russian constructivist art (evident in the lobby depiction of the rural worker and the wheat motif).

\textsuperscript{462} See discussion of the reception of the Jerusalem headquarters in Chapter 2, section 2. Aba Elhanani’s essay “In the Praise of Mediocrity” briefly mentioned it as a part of a positively mediocre urban façade; it also appeared in a visual portfolio on high-rise in Tel Aviv (\textit{Tvai}, Vol I, February, 1966, Tel Aviv) without comment. Architects Ram Karmi and Michael Kuhn each have written short commentaries on the poverty and functional reductionism of the design. See Karmi’s notes cited in Efrat. Volume I. “Concrete”, and Kuhn “Buildings I Like.” in \textit{Ot}, September 1972. 37-38.

\textsuperscript{463} Efrat have included the building’s façade in a visual portfolio for the chapter “concrete”, reconstructing approaches to non-washed concrete in the 1950s and 60s. Efrat also referred in a less precise manner to the notion of Jewish Agency architecture as synonymous with the General Federation of Laborers, and state institutions architecture, ibid.
protocol of civic institutional representation in the early 1960s that was only partially rigid.

5.4. The Ambiguity of the Representation of the Mega-Structural Civic Co-ops’

Not only was the standardized protocol of construction in reinforced concrete that Zvi Efrat terms grayness only partially realized in the Jewish Agency headquarters; it was also short lived. The National Kibbutzim headquarters (1965-1968) and the Agricultural Civic Center commission (1960-1971), which were emblematic of Israeli civic design in the 1960s, did not betray the influence of grayness. Rather they revealed a tension between a new emphasis on the expression of (physical) mega-structure and size and the endorsement of human scale.464

Both the National Kibbutzim headquarters (Ha’kibbutz Ha’artzi) designed by Shmuel Mestechkin and the Agricultural Civic Center complex designed by Sharon and Eidelsohn reflected changing conditions in the Kirya district.465 This section will examine how these two designs framed functional standards by way of complementarity and conflict between the cooperative ideals and the administrative architectural program.

The commission history of the National Kibbutzim headquarters and the Agricultural Civic Center complex are intertwined. The original plan was for the Agricultural Civic Center commission to rent space to the National Kibbutzim Organization, following an initiative to house the various cooperative institutions (all

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465 Sharon and Eidelsohn built headquarters for the citrus industrial cooperative, Yachin Hakal, in 1968, commissioned by the National Kibbutzim Association. Ram Karmi designed the third agricultural headquarters built around this time, the Hadar Dafna headquarters, in 1967, commissioned by the Unionized Kibbutzim Association.
associated with the Federation of Jewish Workers) under one roof.\textsuperscript{466} Sharon and Eidelsohn, who had been commissioned to design the Agricultural Civic Center in the 1950s, envisioned it, in its inclusion of various buildings and public spaces, as a comprehensive civic center.\textsuperscript{467}

The mid-1960s economic recession and consequent funding shortfalls caused the National Kibbutzim Organization to sever ties with the Agricultural Union cooperative which had commissioned the civic center. Industrial cooperative societies, such as Koor industries, and private firms were slated to inhabit the space that had been designated for the kibbutzim administrations.\textsuperscript{468} Ultimately the separate National Kibbutzim headquarters were erected adjacent to the civic center, which together with the latter defined a set of relatively singular designs rather than a comprehensive civic complex.

As well as the break with the National Kibbutzim Organization, developments in the larger Kirya district partially drove the more modest plans for the civic center. An expansion into the north and east, away from Tel Aviv’s historical center, began in the 1960s and continued into the 1990s. This expansion incorporated the city’s new cultural center, which consisted of the Tel Aviv library, the Modern Museum of Art, and the Court House, and a central business district.\textsuperscript{469}

\textsuperscript{467} see Sharon’s citation in the inauguration ceremony, discussing the project in terms of a “civic complex”. In. A. Paz, ibid.
\textsuperscript{468} Ibid. Additionally, the Agricultural Civic Center was built during years in which the Jewish Workers Federation questioned the institution’s raison d’etre. For example, journalist Aharon Beker called to a cessation of funding for the Agricultural Cooperative Union; Dan Margalit reported the calls in the Ha’aretz, daily journal, 31.08.1967. Margalit called for designating a sub-sector of the Jewish Federation of Laborers with the responsibilities of the cooperative union. He criticized Shapira’s management and the new headquarters in the Kirya as expressive of institutional stagnation.
31.08.1967 article
\textsuperscript{469} The new corporate headquarters designs, built along Shaul Ha’melech Boulevard towards the Ayalon highway, were characterized by a more transnational commission background, which the towers’ names reflected: the
Like their peers in North America, Japan, and Europe, Israeli architects were turning towards versions of the mega-structure and to an emphasis on urban and civic design (\textit{itzuv ironi, itzum ezrachi}), breaking away from the simplified prisms of the previous decade. They defined the drama of design in the relation between legible, semi-autonomous structural members and infill components, primarily entire floor slabs. The trend was in line with the growing height of new administrative buildings that were built beginning in the early 1960s.\footnote{470} The second move towards urban design consisted of highlighting values such as human scale, and public space accessible and accommodating to the urban citizen.\footnote{471}

The program of the office tower and the designs of both the Agricultural Civic Center and the National Kibbutzim headquarters evidenced the tension between height and accessibility. On the one hand, these new designs were removed from the mid-to-late 1950s modernist restraint, and sought an architectural contribution to the civic realm (through façade composition, and the definition of public spaces inside and outside of the building). On the other hand, the mega-structural approach conjured a heightened monumentality of physical structures that formed semi–self-sufficient and often overly stated urban landmarks.

\begin{itemize}
\item America Tower (Arieh and Eldar Sharon, 1976), the IBM tower, the Europe Building (Avraham Yaksi, 1978), and the Asia Building (Mordechai Ben Hurin, 1979).
\item Other administrative headquarters following the mega-structural idiom of the late 1950s and 1960s were the Electricity Tower (Avraham Yaksi and Aleaxandroni, 1967), the Israeli Bus Company (Eged) in Haifa (Arieh Sharon and Benjamin Eidelson with Shmuel Rozov, 1969) and the Hadar Dafna Tower further to the east of the site (Ram Karmi, 1971) and to some extent the Ha’ mashbir Hamerkazi (Arieh Sharon and Benjamin Eidelson, 1965).
\end{itemize}

The playful humanist agenda that characterized Team Ten 1950s discussions does not appear in the \textit{Tvai} journal’s discussions of the public space. Here discussants showed greater affinity for the North American approach to urban design propagated by the Spanish architect, planner, and pedagogue Jose Luis Sert, emphasizing human scale, clarity of design, and civic accessibility. However, according to Shulamit Nadler, these values were central to the modernist pedagogy at the Technion under Yochanan Ratner. Interview December 2013.
Within this changing context, the National Kibbutzim headquarters and the Agricultural Civic Center signified the end of one era in the involvement of cooperative institutions in the Kirya district and the beginning of another. Against the built and written expressions of the architects, two distinct events unfolded: on the one hand quasi-organic and effective rural-urban Gesamtkunstwerk of the National Kibbutzim, and on the other hand the mechanical dissolution of this model by the Agricultural Civic Center. The latter was interpreted as manifesting an ambiguous shift in iconography and materiality to an industrial and tertiary horizon.

5.4.1.1. The National Kibbutzim Association’s Balancing Act

Disparate functions of the National Kibbutzim Association were spread across the southern section of Tel Aviv during the 1940s. After a decade of planning for consolidation, the organization received an offer from the Jewish National Fund and the Tel Aviv municipality for a parcel at the periphery of the developing wholesale market. An internal communication from the director engineer of the technical department, Israel Feinmesser, to the institution’s general administration in late 1961 documents this offer, it also comments on issues of function and representation: “We do not believe that the dignity of the National Kibbutzim should be lodged in the area of storage and market even though it [the organization, m.h.] must deal with these topics.” Suggesting headquarters needed distance from the food market, he described the functions of each as

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472 The appeal references an earlier project seeking to locate the agricultural functions in proximity to the market. The Agricultural Bank’s location at the western edge of this complex (as discussed above) also constitutes consolidation of the urban setting of the wholesale market, but it was located a further distance from the market’s activities, functioning more as an urban overseer than as an immediate audio/visual filter to the activities of the market that took place at the open area freed at the center of the market urban-block. Beit Ya’ari Archive, Technical Department, Folder National Kibbutzim Headquarters.
incongruent. In 1965 the institution received another offer, for an urban parcel to the north of the Jewish Agency headquarters running east-west across the urban block, which it took, although budgetary issues confined the final building to a small portion along the eastern edge of the parcel adjacent to DeVinchi Street.

Shmuel Mestechkin, the National Kibbutzim head architect, concurred with Feinmesser as the need to balance the functional requirement of the institution with qualities—such as sociability and representation—exceeding practicality. As he said, “The building was built with the approach that will answer the workers’ function in it (la’funktzia shel Ha’ovdim) and to the comfort of the public of visitors predominantly members of the kibbutzim. The aspiration was to a strong, modest building form, integrating discrete works of kibbutz artists.” The National Kibbutzim headquarters fulfilled this vision by what means, its urban and architectural organization and their characterization by different surface treatments and art-works.

Kibbutz historians Muki Ron and Yuval Danieli described as a duality between a “rugged exterior” (chispus) and a “soft,” “intimate” (rach and intimi) interior. The chispus consists of the non-washed concrete, the display of the physical structure through

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473 Feinmesser’s arguments are primarily concerned with the proposed building’s proximity to the whole market’s smell and noise nuisances and with its dimensions. The 60 meter length and 12 meter thickness were defined on the basis of a storage facility once located on the site; Feinmesser considered them wasteful, claiming 8.5 to 10 meters thick sufficient for office buildings. Ibid.
474 The Givat Haviva archive does not have any materials covering this phase of the design. The reminder of the urban parcel serves currently as a parking lot diminishing the effect of a well-resolved urban block.
475 Mestechkin had made similar comments about urban cooperative administrations beginning in the mid-1940s. Shmuel Mestechkin, The Technical Department of the Kibbutzim – Ha’Shomer Ha’tzair, commentary on the design of the National Kibbutzim Association upon request for an extension permit, November 30, 1986 (Yad Ya’ari Archive, Collection Shmuel Mestechkin, in Hebrew, my translation).
476 In To Build and to Be Built in It – the Architecture of Shmuel Mestechkin. [in Hebrew]. (Givat Haviva: Beit Ya’ari, 2008), 54. The Kibbutz Ha’artzi architect and educator Michael Kuhn (1919-1990) concurred about the design’s human features, contrasting it with the Jewish Agency headquarters design. Or. Ibid. He proposed Mestechkin should receive the Rockah Engineering and Architecture prize for this design in 1968 (see Tel Aviv Municipality Archive, Rokach Award Folders).
the façades, and the horizontally compressed outdoor plaza with steel and wood abstract human statues; the decorated waiting areas and dining and reunion halls in which a small aggregate of brown granolith cladding provided the intimate contrast. Ron and Danieli describe this duality as embodying the architect’s view of the kibbutz inhabitant’s (kibbutznik) character. This notion of a division between the public versus private face of the organization, in turn, exemplifies what cultural historian Oz Almog describes as the prominent image of the “new Israeli” after the 1948 independence: a Jew born and raised in Palestine, whose dominant metaphor was the Sabra-cactus plant (Tzabar in Hebrew), a desert cactus covered with thorns with sweet and soft interior fruit.\footnote{Oz Almog, ibid, Chapter 1.}

Perhaps the crucial nature of this duality in the culture at the time explains why, as I understand the design, this duality was more deeply woven into it. I argue a spectrum of relations juxtaposing strength with softness pervaded the building. These features defined the arrangement of the program and urban façade, its surface treatments, and its various modes of engagement with users. This duality became a signature of Mestechkin’s non-dogmatic architectural approach, and two other designs for the National Kibbutzim, the Brenner House, inaugurated in 1969 (figure 5.71, 5.72, 5.73), and the Kibbutzim Teachers Seminar campus in Ramat Aviv (Seminar Ha’morim), inaugurated in 1961 (figure 5.74, 5.75, 5.76), also exemplified it.

The Brenner House was a small cultural center developed on the parcel that the author Joseph Haim Brenner had once owned. Characterized by a relatively outdated whitewash machine aesthetic, the design displayed a more dramatic constructivist composition of volumes that prevailing light conditions demarcated by stark shadow

\footnote{Oz Almog, ibid, Chapter 1.}
contrasts. Upon inauguration, reviewers compared the strength of this composition with the image of a fist. However, he complemented the design with a smoother treatment of the approach path and garden, using pergolas and vegetation of different scales, which balanced the stark with softness. These elements, in part, remained in the project phase most likely due to budget issues (figure 5.71).

The Kibbutzim teachers’ preparatory school in Ramat Aviv (1963-1967) was an early expression of Mestechkin’s 1960s experiments with Brutalism. It formed a small campus comprising a series of two story buildings: a library, classrooms, and a dormitory, connected by interior courts and bridges. The campus scale would not accommodate a mega-structural solution, so wall surfaces alternately treated in non-washed concrete and rough white plaster concealed the vertical sections of the physical structure. The general features of massing (in roof solutions, floor-slabs, etc.) communicated a clumsy heaviness and brightness or softness.

The three commissions were part of an urban display of the National Kibbutzim role as a propagator of knowledge and culture. The National Kibbutzim headquarters was the most elaborate of the three in its treatment of the structure and surfaces, in the definition of distinct programmatic units and in the integration of artworks and unique façade detailing, and thus the duality that ran through each of them gained its strongest expression in this design.

5.4.1.2. Duality and its Limitations in the National Kibbutzim Headquarters

Like the Agricultural Civic Center Tower, the National Kibbutzim headquarters tower had a two-fold layout. It comprised a relatively opaque vertical utility-core,
articulated with repetitive and elevated office floor slabs. The building sheltered a raised entrance plaza at ground level, and was topped by a structure in reinforced concrete-beams that defined a coronation motif on top of an open terrace (figures: 5.77, 5.78, 5.79, 5.80, 5.81).

The Agricultural Civic Center’s core was displayed at the center of an axial system running parallel to the major façade; distinctly the utility core of the National Kibbutzim was located at the back of the parcel. This decision foregrounded the repetitive office floor slabs and simpler street-scape (figure 5.81). However, as in the Jewish Agency design, the utility core was in back, away from street façade, maintaining the balance between strength and softness by attenuating the hardness the core would have imposed.

At the periphery of the façade, the suspended floor slabs articulated the vertical, non-washed reinforced concrete structure they supported. The effect suggested a strong skeleton. At the ground level the structure framed a counter-relief in reinforced concrete (figure 5.83). Consisting of schematic patterns of the Jewish lamp gradually morphing (in the direction of the entrance) into an abstract composition of organic shapes, the relief was inscribed in and offset the logic of the structural grid. Like this counter-relief, windowsills clad with striated white concrete paneling nuanced the Brutalist and mega-structural rendering of the façade.

The counter-relief formed a first interface with the street and with the building users (figure 5.84). Adjacent to it, and parallel to the façade, ran a flight of stairs. It involved a change in the direction of circulation from an initial perpendicular approach to
the façade, creating a less direct and discreet entrance sequence leading to the covered entrance plaza. The plaza gave full expression to the structure and to the mega-structural rationale. It was delimited at the periphery by the columns running along the building façades and connected by a series of massive drop-beams. The raised platforms were typical of 1960s developments, suggesting the influence of mega-structural thinking and the renewed interest in urban pedestrian cores. The plaza’s semi-hidden status made it an intimate architectural interface, distinct from the typically open-ended and often poorly inhabited urban spaces of 1960s platform urbanism.

The mega-structure and the raised platforms existed in tension with the plaza’s small-size, decreased height, relative delimitation, and low walls, extending the duality of strength and softness. Sculptures and wall reliefs also conveyed intimacy. The statues consisted of a series of human-scaled abstract figures with a primitive tinge that defined a permeable threshold to the entrance hall (figures 5.82, 5.84). Two wall reliefs framed the major lobby entrance. On the right, an overlapping opaque wheat pattern in golden brown wood; on the left, a sculptured bench in wood and concrete topped by a brown ceramic tiles relief depicting an amorphous non-gendered human figure through a collection of dots in the form of semi-flowers and semi-cog-wheels. While semi-columns framed the wheat pattern, the relief on the left had no such interruption. The semi-abstract image of industrial and agricultural labor, recalled the relief in the Jewish Agency headquarters, however forged a more holistic notion of synthesis of the arts.

481 To reflect in terms of the three strategies discussed by Sert, the design was closer to the third strategy he identified, one in which relatively autonomous art mediums (architecture and relief) that jointly reach a new degree of synthesis. McLeod (2015).
Circulation spaces inside the building displayed similar features. They also corresponded to Mestechkin’s description of urban cooperative administrations as restless places in need of supplementary space for social exchange and cultural activity; the core comprised a spacious landing and each floor integrated an artwork by kibbutz artists. These were made of wood, steel, and stained colored glass. As such the core deviated from its status as a marker of functional reasoning and its initial identity as a mechanical component of the building’s technical system.

Duality ceases in the major interior public spaces—the dining and assembly and a smaller reunion hall. The stronger structural features associated with Mestechkin’s architecture are absent. Artworks of Yohanan Ben Jacob (in the first hall) and Moshe Saidi (in the two latter halls) covered entire wall sections (figures 5.85, 5.86), and small size granolith plaster, or tiled stone coated the concrete wall. The engagement of these kibbutzim artists suggested the intimacy and warmth of the community. Their work recalled Schatz’s work for the Jewish Agency headquarters, juxtaposing abstract geometric motifs (triangles, squares and negatives of quarter circles) with plants, animals (fragments of birds), agricultural-related motifs of the meal, and the Menorah.

The unique and tailored treatment of these spaces resonated with the central function these programmatic components have typically played in Kibbutz planning (see

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483 The horizontal circulation spaces in the National Kibbutzim headquarters were more spacious than those at the Jewish Agency headquarters (as Michael Kuhn notes, ibid) or in Alexander Klein’s governmental buildings in Jerusalem. In this respect the dimension of these spaces at the NK building seem closer to those Dov Karmi used in the Federation of the Workers Headquarters.
484 Dining halls became common in large administrative buildings during the 1950s and the 1960s. In the vicinity of the JA headquarters, buildings such as the Association of Journals, the Trade Union Headquarters, and the Hadar Dafna House had dining halls (which later became private cafeterias).
485 Concrete was clad here with the granite aggregate and the impact of dropped beams minimized by suspended technical ceilings.
also discussion in chapter 4). There, they defined the core of the collective settlement, together with the major grass plaza (*ha’midsha’a*), what Feinmesser termed the “kibbutz [collective] house.” As well, the enclave-like character of these spaces kept them soft; fully conditioned with no windows, they were removed from the public realm. The reliefs suggested windows, providing views onto an imaginary institutional territory.

The National Kibbutzim headquarters constituted a humane administrative mega-structure. Located in proximity to state bureaucracies the design resonated with the notion of the “small group” (*ha-kvutza ha-ktana*), designating an intimate, well-knitted community of labor and life that was at the core of the National Kibbutzim association.

5.4.2.1. Unresolved Tension in the Agricultural Civic Center Complex

The representation of a cooperative community that the National Kibbutzim headquarters design would achieve easily was contentious in the case of the Agricultural Civic Center complex. The change in the mix of funding sources that led to the separation of the National Kibbutzim headquarters and the inclusion of more industrial and private institutions than originally planned complicated the design task. Contemporary commentators criticized the Agricultural Union cooperative for organizational stagnation. They also considered the headquarters to be further evidence of the union’s inability to devise a legible institutional representation in Tel Aviv. In defense of the design, the architects and the co-op administrators advocated for the complex’s functional economic

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nature and its representational civic attributes, calling it an expression of Israeli identity
that would unify the institution with the city.

Initiated as a project in the early 1950s, the Agricultural Civic Center design was
commissioned from Sharon and Eidelsohn’s firm early in the 1960. Construction began
in 1965, a year before Sharon and Eidelson broke their partnership and Sharon’s son
Eldar entered as a new partner (see discussion chapter 3). While sketches for the
design created in the early 1960s included façade details resembling the thin, dense
skeletal system of the Jewish Agency headquarters and the Ha’amshibir Cooperative Tel
Aviv headquarters (1956, figure 5.53, 5.87), the characteristics of Sharon’s last phase of
work with his son starting in the second half of the 1960s was apparent, through emphasis
on expressive and sculptural surface and mass treatments (figure 5.89).

Beyond the possibility of disagreement or differing visions between the Sharon
and Eidelsohn phase of the design, and its realization under Sharon’s last partnership, the
civic center project came in a period when their firm was further focused on coop and
state institutions. The functional language of gridded plans and façades and thin
skeletal façade systems, was giving way to what Efrat has characterized as more plastic
Brutalism, focused on structural joints and the legibility of reinforced concrete mold
systems (figure: 5.89). In accord with this turn, the functional, flexible, and lightly

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488 The reasons for the severance are beyond the scope of this dissertation and the literature to date has not
illuminated them.
489 In addition Eldar Sharon’s influence is evident in the final design in the form of sculptural module in asbestos
that concealed technical facilities at the roof floors of the lower building were clearly identified with the
morphological experimentation of Eldar Sharon.
490 The firm built these coop institutions between 1963-1971: the Yachin Hakal Citrus cooperative tower, the
kibbutz Yad Mordechai Memorial, and the convalescence center in Tveria. It undertook these state institution
projects in the same period: the Bank of Israel headquarters in Jerusalem, the Yad Vashem holocaust memorial,
and ongoing work for the hospital campuses it had built in the mid 1950s. The commission for the IFE university
campus in Nigeria originating in the early 1960s was located between these two sectors. They also responded to
commissions coming from the private sector, such as the America Tower.
adaptable plan and spatial system observed in the early 1960s (manifest in the Jewish Agency headquarters design), gave place to an emphasis of the open plan and space, and continuous façade sequences, jointly addressing spatial and material unity.

Commissioned by the Agricultural Union Cooperative, under the direction of Yitzhak Shapira in 1950, the complex was allocated a 0.7-hectare parcel from the Jewish National Fund. It had to incorporate an existing four-story office building of the Workers’ Housing Cooperative (Shikun Ovdim) at the southern-eastern portion of the urban parcel. From the mid-1960s, the design envisioned two separate buildings that, like the Jewish Agency headquarters at the southern end of the same urban block, faced east-west.

The first of the two had four stories. Located at the back, southern portion of the parcel, it had a longitudinal mass, aligned with the street to the east and recessed to the west and comprising two central patios (figure 5.88). It incorporated the existing building of the Workers Housing Cooperative; the addition provided headquarters for the Settlement Movement House and the Labor Movement party house, with separate entrances on the eastern and western façades respectively. Continuous façades treatment in non-washed concrete united the building as a whole. These façades consisted of

While Solel Boneh was the Trade Union’s biggest construction company, Shikun Ovdim was one of 12 Trade Union construction firms at the time, as was Neveh Oved. Richard Ingersoll, Munio Gitai Weinraub, Bauhaus Architect in Eretz Israel. (in Hebrew). (Tel-Aviv, Babel, 2010). 71.
The building consisted of 30,000 square meters, of which 25,000 were for offices, including an assembly hall for 300 persons on the 16th floor, a 10,000-meter parking area for 250 cars, and a restaurant seating 220. The initial investment in the building was 25 million lira, and the institutions invested six additional million for the complex’s AC system and office furniture.

Sharon and Eidelsohn had already used such a system in several of their 1950s designs, including the Central Health Fund (also known as the Solel Boneh Building) in 1956, the Campus Buildings in the Technion School of Technology in 1958, and the IFA Campus buildings in Nigeria from the late 1960s.
horizontal concrete strips poured *in-situ*, with a striated surface motif stretching over the protruding spandrels.

The second building had 17 stories and was positioned at the northern end of the parcel (along Shaul Ha’melech Boulevard). It consisted of two identical office sub-towers based on a repetitive square office plan. These towers were articulated by the central vertical utility core. Unlike the National Kibbutzim headquarters, the utility core was located in the center of the composition’s longitudinal axis, along its major façade, as a symbol of efficiency. But the design recalled the mega-structural logic of the National Kibbutzim design through two sub-towers’ floor slabs carried by a system of eight massive reinforced concrete pillars positioned at the periphery of the façades (figure: 5.90, 5.91, 5.92). These floor slabs consisted of protruding horizontal strips of spandrels with a striated surface treatment, the same as the slabs in the lower building.

At ground level, the system of pillars allowed for two story ceilings in the lobbies, delimited by full height window panels and sheltered under the first floor slab. Similarly, the system of pillars freed a double height reunion hall at the 16th floor. It ended at the roof level, next to the sculptural termination of the utility core, with an expressive pointed section. Unlike the articulate details of the finer column sections of the National Kibbutzim headquarters, the columns in the Agricultural Civic center towers did not have evident mold and casting sections repartitions along their vertical axis. Together with their thick and irregular geometric sections, the columns, which ran the full height of the tower and further above its last floor, gave place to a more plastic and monumental

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493 This was to some extent a non-modernist recovery of the compositional center that early 1960 architecture rejected, as in the Jewish Agency headquarters.

494 This feature is reminiscent of the coronation effect achieved in the National Kibbutzim headquarters.
expression of structure. The fact that, upon inauguration the tower was the second highest high-rise in Tel Aviv, enhanced the effect; however it also instigated critique of the tower’s resonance with a landscape of high-rises serving the private sector that would soon proliferate to the east of the Kirya district.

The primary purpose of the two sub-towers was to house the Agricultural Cooperative Union (Ha’igud Ha’klai), in the east tower, and T’nuva (Produce), Israel’s first dairy production and distribution cooperative in the west tower. However, with the changes in the constitution of the funding institutions in the mid 1960s the Koor industries cooperative rather than Tnuva took over the western tower.

The changing commission conditions disrupted the coherence of the iconography; a sense of divided or ambiguous representation is evident. A ceramic mural based on schematic figures of oranges, pomegranates, and cypress trees by artist Rivka Semo Drori clad the exterior undulating wall leading to the lobby of the eastern end of the lower four story building (on Leonardo Da Vinci Street, figure 5.94). This mural, and the institution logo attached to the non-washed concrete slab beside it, claimed the building’s place as the seat of the Settlement Movement administration. The original plan for the

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495 The Agricultural Cooperative Union was founded in 1911. The Jewish Federation of Laborers (Ha’histadrut) became the uniting organization supervising the Agricultural Cooperative Union after 1920. According to Izhak Shapira, the intent was to assemble and define the policy of agriculture production, development, and exportation. The institution was said to have cooperated with the governmental offices of agriculture, industry, and commerce. T’nuva was historically formed as a distribution cooperative connecting the Kibbutzim and the Moshavim villages. T’nuva’s role in the commission is unacknowledged and difficult to assess, as their archives are not public, but the commission folder in Aztrieli Archive implies it had one. Tnuva’s involvement in the development of Tel Aviv eastern plan is primarily noted through its role in commissioning the whole sale market complex that was historically located to the south of the surveyed area in this chapter. Arieh Sharon likely referred to the Agricultural Cooperative Union and the T’nuva Dairy cooperative when he captioned an image of the ACC tower as “Two Agricultural Cooperative Headquarters.” Kibbutz + Bauhaus, an Architects’ Way in the Land. Chapter 6.

496 The architects’ archive has minimal information about artwork commissions. Rivka Semo Drori was art teacher during the 1970s at the Unionized Kibbutzim art seminary in Beit Berl. Similarly to other artist whose works were integrated to the built-work studied in this chapter, Semo Drori’s work is little known. She was a student at the Midrasha (an art college of the Unionized Kibbutz movement, whose members were identified with the labor movement). She published Ceramics with Pleasure (Tel Aviv: Publisher unidentified, 1986).
interior of the western tower would have continued these scheme with the theme of the seven species from the mural in the lobby.  

The changes in the final complex funders and occupancy and Koor’s growing role in the commission led to the replacement of the seven species design with a more abstract and geometric décor made of aluminum plates for the west tower’s co-op’s lobby (figure 5.97). This design echoed a sculpture of the same material and motifs. The sculpture was set on top of the last, western, of a series of square, concrete planters located at the west-north edge of the parcel (figure 5.95, 5.98).

The title and the logo of the Agricultural Cooperative Union stood out in the context of the design because it carried agricultural imagery (figure 5.96). Attached to the eastern end of the ground floor lobby wall, the logo consisted of a metal relief of golden wheat morphing at its top into a menorah and rising above a unifying green circle. Along with the designs created to house Koor, these features suggested the tenuous nature of the institution’s representation—one in which small scale graphic fixtures and decorative surface treatments were almost the last legible signs aligning this administrative headquarters with the rural territory of the working settlement (Ha’hytyashvut Ha’ovedet).

Unlike the artwork that appeared in the National Kibbutzim headquarters, distinct iconographies (agricultural and industrial) clearly divided the artwork in the Agricultural Union building. Together with the design’s ambiguous character, they evoked

497 Arieh Sharon and the Agricultural Cooperative Union director Ytzhak Shapira considered interior design proposals from illustrators and designers Gidi Kayach and Dani Gilbert. Azrieli Archive, Arieh Sharon Collection, “Agricultural Cooperative Union” Commission Folder. Gidi Kayach was a member of the National Kibbutzim association, and became the home designer for Koor. His proposal for the lobby decor was based on his design of the firm’s logo.

498 The circle may have stood for the union of cooperatives that the Agricultural Cooperative Union Cooperative represented.
monumentality and ordinary features that resulted in a contentious reception of the
design. The building’s character and representation also resonated with the changing
geographical, institutional, and architectural vocabulary of the design and its changing
urban setting from cooperative to private and cultural civic commissions. At its root, this
issue triangulated questions regarding modernist design capacity to articulate civic and
collective symbols. The following section will reflect on these issues in light of
comments by Sharon, the Agricultural Union directors Avraham Hertzfeld and Ytzhaq
Shapira, and journalists who documented the inauguration of Agricultural Civic Center
complex.

5.4.2.2 The Debate Over a Functional Israeli Cooperative Structure

In the months before the inauguration of the civic complex, a section on local
news of the Ha’artez daily newspaper sharply criticized the Cooperative Agricultural
Union and Shapira’s leadership. Their criticisms suggested the thorny nature of political
and architectural representation specifically as it regarded the complex’s resonance with
changing architectural vocabularies, urban landscapes, and cultural identities.

For example, an article titled “Parkinson and Conceptual Values” described the
Agricultural Union cooperative as indicative of the organization’s inertia, wastefulness,
and the poor values of its leadership. It claimed the union has lost legitimacy as a founder
of the Jewish cooperative economy, that it had become a parasite unable to serve
workers’ interests. He called the Kirya headquarters the latest example of stagnating
bureaucracy in the organization:

…The person seeking for its justification should find it in the famous theory of
Northcote Parkinson, the person who theorized the malignant bureaucracy…. There
were times when the Agricultural Cooperative Union played a significant
role. [Now] it exists [because it] has existed for decades; it... does not fulfill any useful function, and now it creates a high-rise in one of the central streets of Tel Aviv – and...will be filled with clerks and... crowds of people will be entering and exiting it carrying plastic bags under their arms. In short, the Agricultural Cooperative Union is a prototype of Parkinson, the model in which exists all of what the English sociologist described in abstract terms. There were times in which the Agricultural Cooperative Union fulfilled an important function.... However, this era has long reached its end.\footnote{Dan Margalit, “Parkinson and Conceptual Values,” [in Hebrew, my translation] Haaretz, July, 06, 1971 (figure 70, full citation in chapter appendix).}

Another commentary in the right wing Heruth daily newspaper, “The Kibbutzim Building in the Millionaires’ Area,” repudiated the bureaucratic, “non-local” and American nature of this new design, comparing it to what it described as the characterless Diamond Dealers Tower.\footnote{The editorial went on to say that members had considered the wasteful direction of the commission particularly objectionable and that Shapira had been called before the directory board because of these issues. “The Kibbutzim Building in the Millionaires Area,” Heruth, 08,03,1964. 2. The Diamond Dealers Tower was notorious as the original plan called for building it in Tel Aviv and it was moved to Ramat Gan for tax reasons. “Glamorous Tower Is Inaugurated by the Diamond Dealers.” In Ma’ariv, 10.22.1968, 13.} The first curtain wall tower in Israel, the Diamond Exchange Tower was concurrently erected in Ramat Gan’s CBT, promoting a rising local corporate economy (figure 5.99). The editorial criticized the cost and location of the Agricultural Civic Center complex, and indeed the location was close to one of Tel Aviv’s upper-middle class residential neighborhoods.

The criticisms of the Ha’artez and the Heruth did not go unanswered. Speaking to the house journal of the Mapai labor party, Davar, Shapira said the complex had fulfilled his vision of an efficient and economic solution and that its role in centralizing settlement workers factions (both agricultural and industrial) and administrative functions in the city would be invaluable.\footnote{Shapira commented: “I highly regret the odd comparison that was made only a week ago, when this house was compared to the glass house of the diamond exchange, as if we, the people of the settlement, did not know that one does not settle in the city. However for the necessities of settlement we needed a house in which we can concentrate the maximum of factions, movements, factories, institutions and organizations into their distinct professions, in order for them to serve in the more efficient and economic manner all those who turn to them}
in his speech at the inauguration ceremony. Humorously, he acknowledged that he would rather use the stairs to traverse the 17 stories because he considered the elevator inefficient, although he was 82 at the time. He also lamented the lack of unity in the tenants. Yet he claimed the building was nonetheless a good “deed,” using a term that resonates with the historical figure of Jewish pioneers. He concluded that the civic center would ultimately provide a renewed sense of unmediated “togetherness” (Be’yahad).

Central to the kibbutz social ideology from the days of the second wave of Jewish immigration, such a sense, he emphasized, would overcome bureaucratic organizational divisions, uniting “those at the top and those at the bottom.”

The Davar journalist A. Pri. Paz likewise defended the building. He described it as both banal and grand, saying it was not “a luxury building,” and yet “It has something’ special. Its outer forms seemingly symbolize its content.” In arguments that could have defended the functional transparency Sharon promoted in the 1940s, he argued that the design’s lack of formality effectively represented the historical working organs grouped under the new house. He appealed to the institution’ original members,

\footnote{See citation of journalist Dan Margalit from Ha’aretz, in the beginning of this case study.}

\footnote{“I shake your hands and say: You have done a great deed. What you brought, you brought, and it is not a small but a great deed. However is it already full and complete? All we do always needs completion and realization, and those will be carried by the followers, who will do so before me. If only you will do so as early as possible! That those who are above and those who are below be supported. We shall be together. How would Ben Zion Israeli (Tzernomorsky) would say? ‘Together, together’ friends! This ‘together’ how much it adds! When we shall be together—then everything will materialize.” Avraham Herzfeld quoted in Davar, “The Agricultural Civic Center Opens its Gates.” 06.14.1971, 15. On the kibbutz’ ideology of social togetherness (also entitled in Hebrew Be’tzavta) see, Oz Almog, ibid, 351-359.}
the sons of the working settlement, the kibbutzim and moshavim (collective and cooperative workers villages), the historical developers and founders of the state.\footnote{504}

A. Pri. Paz concluded, implicitly responding to the idea that the complex lacked character, that modest architecture made the center a pure symbol of a resourceful pioneering spirit: “The exterior shape is not important. The building unlike many new buildings was not furnished anew…but used office furnishings from the previous administrative locales as the exterior form is not the goal. \textit{Here only the spirit and power of men in his organizational and economic capacity reign.} [italics added].”

Sharon’s comments at the inauguration concurred with the comments of both Hertzfeld and Paz regarding the rationale of the design. He presented his revised functional approach that was predicated on open spaces, material plastic continuity, expression and economy, and comprehensive urban simplicity and generosity. He opened with a point about the Agricultural Civic Center design circulation scheme. Describing the building as a simple office building with offices organized around a core (garyin), he compared his design to the headquarters of the Jewish Agency and of the Federation of Workers headquarters (design by Karmi, Karmi, Meltzer, inaugurated in 1952). In so claiming, he reduced the organizational differences between these designs. He portrayed instead an idea of a family resemblance between major cooperative institutional headquarters in Tel Aviv.

\footnote{504} “The content of the house of the Federation of the agricultural workers; dwelling of Israeli agricultures, of the working settlement, of the foundations (amudei ha’atavech) of the Federation of Jewish Labor (Histadrut) and the important factors to the fortification, security and independence of the state. In this house reside the representatives of the agricultural settlements that have contributed to the consolidation of the state’s national boundaries in the war of independence. The representatives of the frontier settlements that served as the state’s security belt before the six days war. The men of the old settlement that contributed to the state’s economic grounding and to the production of the supply for the state residents, the men of the young settlement that was an important factor for the integration of immigration and that proved that ‘the wandering Jew’ became a man of work (amal) rooted in its soil.” See full citation in the chapter appendix.
This argument had the same implications as Sharon’s claim for the simplicity and fitness of the unitary and “modest” treatment of reinforced concrete: “We sought to ascribe the building with the simplest character possible. This is expressed in the material, the interior design, and the exterior texture. The buildings’ material is the simplest – concrete…. And we are nonetheless proud that we have one building texture throughout (saviv-saviv) and that all the façades are clad with concrete. With this we ascribed to the whole building an Israeli character, simple and modest, as Israel should in fact be.”

Such a framing of reinforced concrete as a metonym of the Israeli character or nation was typical, as previous scholars have shown, because of the material’s place in Israeli architectural culture throughout the 1960s. In the case of the Agricultural Civic Center, such a national physiognomy was, furthermore, triangulated with an understanding of the meaning of the building’s structure and modes of co-op display.

Sharon went on to reflect on the physical structure and the organization of the program and siting, referencing the design’s monumentality and ordinariness. He clearly sought to distinguish its size and nature from the Diamond Exchange Tower and, by extension, Israel’s evolving high-rise cityscape. He highlighted the economic and unifying role the vertical structure played as it supported and connected the discrete elements of the composition—the lobby, repetitive office floors, and the double height reunion hall at the 16th floor.

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506 See Aba Elhanani and Ram Karmi quoted in Zvi Efrat, The Israeli Project, Vol I, 107-108. Efrat calls “the aggregates kenanai, Zionist, National, corporeal, stable, un-spiritual, Danziger (Israeli artist identified with the ideal of Kenananism, m.h.) and in fact every aspect that was attributed to the ‘Sabra’” as the concrete blender, saying that it was “immediate, pragmatic, instinctive, rugged, warty, scorched, hoarse are all joined into sticky dough of private and collective personifications and are coalescing at once into a local truth, as truthful locality” 108. Sharon Rotbard, Concrete Architecture, Avraham Yaski… “Israel and Jehuda Idioms.” (Tel Aviv: Babel, 2010).
The building’s elevation on a podium and the series of square planters along its main façade, which segmented rather than made room for a clear public space, demarcated a removed, self-contained composition. But Sharon considered it economical and local in its outlook. While the structure reproduced the monumental drive of mega-structures, he rejected the idea that it exemplified Americanism and waste.

For support, Sharon pointed to the use of reinforced concrete and the connection between a complex of buildings with its public spaces. He described it as an example of organizational, spatial, and urban principle: “If there is waste in this building, it is in the plazas (rehavot), and the expansiveness (rahvoot) is not in the offices, but at the bottom, at the house entrance (ba’knisa la’bayt) and above on the roofs.”

The “simple” reinforced-concrete structure united functional components and provided an architectural-urban continuum. It emphasized the idea of open office floors by using one material treatment to join the inside and outside spaces in the tower (“one building texture throughout.”). Resonating with this vision, the structure as an organizational, spatial, and urban principle created a spacious lobby open to “the exterior gardens,” making a cohesive part of the public space and creating “the popular and social touch among the many institutions that are in this house.” It also connected with and enabled the solution for the institution’s reunion hall, which was intended to be “visually the seed for the development of cultural life of all the institutions that are in the house.”

These two measures together, material and organizational, established an architectural response to the issue of economy and institutional grandeur (“expansiveness” rechavot), a word in Hebrew conveying large size and invoking the
507 In Sharon’s description, material and organizational principles regained their organic, socially cohesive and creative capacities. Although critics read in the design bureaucratic remoteness and hierarchy. Sharon’s design responded to Paz, Hertzfeld and Shapira’s concerns, creating a structure whose economy of means reflected Israeli modesty and earnestness seeking a civic symbol of a vivid and functional organizational spirit.

5.5. Revisiting the Historiography of Tel Aviv’s 1950s and 60s Modernism

Architectural historian Zvi Efrat characterized 1950s and 1960s Israeli architecture, which commentators in the 1960s called “gray,” as state architecture:

“The Gray Period” is a derogatory term that has been projected on “the state architecture” (or interchangeably “the architecture of the Federation [Ha’histadrut m.h.], “The Jewish Agency Architecture”, “the recruited architecture” etc.) that because of historical conditions, pragmatic considerations, and bureaucratic spirit created things that are seemingly meaningless; exposed buildings, clumsy, serial - and above all “non-human” that are expecting a redemptive “clearance and reconstruction.”

Efrat applied these terms to a wide variety of architectural programs and themes, and programmatic, compositional, technological and representational aspects of design, contrasting them with the historiographical tendency that had preceded them.

507 “If there is waste in this building, it is in the plazas (rehavot), and the expansiveness (rachvoot) is not in the offices, but at the bottom, at the house entrance and above on the roofs. This expansiveness did not cost us much, because when we enter a free space of a double height, the same space that is being rented in many buildings for shops, banks and other functions, we enter not as in any office house. This expansiveness is the major thing of this house. By this entrance that is visually transparent, we raised the offices to the second and third floors and they do not suffer from the noise of the street. In this way we created the popular and social touch among the many institutions that are in this house. Also, the surrounding gardens communicate with the building all around. The finish of the house was particularly planned in the form of two halls. In comparison with all the buildings erected in Tel Aviv we made in this building a special construction of four columns, carrying not only all the house floors, but, as they rise to the height of the halls they also carry them. The assembly hall, for 250 people, is caught in four points between the four columns, and as such we have the possibility to create architecturally both the house entrance and visually the seed for the development of cultural life of all the institutions that are in the house.” See full citation of Sharon’s comments in the chapter appendix.

508 Efrat, 55. As discussed in the dissertation introduction, while acknowledging the problematic social aspects of this history of planning and architecture, Efrat calls for an empathetic understanding of this period. Efrat. 80.
Describing the arrangements of institutional buildings in this period, Efrat emphasized their simple, direct, and legible sequence of programmatic components. He also noted the sense of institutional dignity and representation that was based upon straightforward features:

In the 1950s office large office buildings were constructed in the country, they served primarily for the national, municipal or General Federation of Labor based governmental institutions. Respectively, their architecture expressed bureaucratic dignity, organizational transparency, public decency, and typological clarity (the exemplary case is the General Federation of Labor headquarters in Tel Aviv designed by Dov Karmi). Morphological creativity was not on the agenda. The… architect had to regulate the relations between formality and ceremony and everyday efficiency…. The public institutions of the first decade developed aesthetics of non-washed concrete – however, primarily as an expression of the schematization or rationalization in the design and construction. In these buildings the grid of the construction or the shading system received for the first time its visual expression in the Israeli architecture and became an epochal identifying feature. [Translation, MH] 509

Efrat emphasized parallels between the simplicity of compositional and programmatic organization in this institutional and serial architecture, and the rationale of its built envelope, articulated in its disregard of urban fabrics and sites:

The brise-soleil has a double effect: it ventilates the building and veils it; accentuates its autonomy, its objectivity, by the tight framework, and in the same time cancels its uniqueness, and ascribes it into a massive system of production and distribution of shelve products…in rough schematization, the Federation architecture (Adrichalut Ha’histadrut) is characterized by skeletal and grid-like character. [Translation, MH] 510

This juxtaposition of two levels of simplicity (the architectural parti, and envelope and the detail), characterized Efrat’s identification of grayness with statehood. This characterization, together with the hasty pace and unprecedented scale of welfare commissions, produced what Efrat identified as an architecture of “massive system” and

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509 109-111.
510 413.
“shelf products,” referring to an excessive standardization under the state.511

While Efrat contended that urban context did not play a role in design, including that of buildings in Tel Aviv, the prevalence of Tel Aviv architecture among his examples suggest the setting had a certain significance that he did not acknowledge.512

The case of the Jewish Agency headquarters design, which epitomized several of the features of Efrat’s description of grayness, is symptomatic of Efrat’s neglect. The Agency headquarters are intrinsically tied to the space of Tel Aviv by their relation to the urban site and to a wider series of institutional design therein. I argue that the centrality of Tel Aviv, as a governmental, cultural, and civic center of the newly founded state, drove this relation between the city and his description of grayness. The city’s newness relative to Jerusalem and Haifa also supported a commitment to a more uniform approach to modernity; thus Tel Aviv was the fullest expression of the prevailing design approach during this period.513

Historian Alona Nitzan-Shiftan analyzes Tel Aviv’s modernism, describing the city’s modernist heritage — both as a built corpus and an effect on preservationist and historiographical discourses — as part of an imagined national geography. She describes an “internal” and “modern frontier” delineated through this heritage as an antidote to the

511 See also: “The White Architecture of the 1930 and 40s of the precedent century that inspire longing of a movement of national renewal, that sought and found for itself images of popular elitism and of elitist populism - distinctly the “gray architecture” of the 1950s and 1960s is a solid skeletal (that inspires respect in its sincerity, directness and professional accomplishment) of a massive construction project, with no historical precedent in its relative scale, conditions of realization and pace of development. Despite its violence to the native population and to the immigrant society, this project merits a close and empathic gaze.” Vol. I. 80.
512 Cases discussed in this chapter and in chapter 2, were among those that shaped Efrat’s reading of the period: General Federation of Labor headquarters, the Jewish Agency headquarters and the Workers Bank, the El-Al Tower, and the Tel Aviv Municipality tower.
513 Another city that have allowed for a similar sense of modernism was the southern city of Beer Sheva, albeit its centrality for design practices was not matched by the same type of institutional commissions due to its peripheral geographic location. On Jerusalem and Haifa’s modern architectural heritage, see: Koryanker, ibid. and in Gilbert Herbert and Silvina Sosnovsky. Bauhaus on the Carmel and the Crossroads of Empire: Architecture and Planning in Haifa During the British Mandate. (Jerusalem: Yad Izhak Ben-Zvi, 1993).
country’s growing nationalism after the six years war in 1967 and the unification of Jerusalem. By preserving and celebrating this heritage, this frontier served to cleanse Israeli architectural historiography of the taint of nationalism. Hence, both historians of architecture, preservationists, and critics have sought an alternative canon to the nationalist version that emerged after 1967 through the preservation and history of Israeli modernism and Tel Aviv in particular.

Nitzan-Shiftan developed this reading in relation to various episodes in Israeli architecture and historiography, arguing that the divide between the architectural practice of Tel-Aviv and Jerusalem coalesced largely around the choice of building materials.514

Such divide involved the distinct material treatment and cultural connotations associated with the architectural practices of each city:

The promotion of the “white” and “gray” architectures of the Zionist and Israeli projects thus indicates a process that ventures far beyond historiographical trends. It indicates, I argue, a growing internal border that is fabricated between the architecture of the Israeli state and that of the Jewish nation.515

These urban and materially laden notions bifurcated the Israeli practice after 1967 into stone regionalism of the nation and a universal reinforced concrete modernism of a secular, civic state. While, according to Shiftan, architects pursued both approaches in order to reconcile them in the ideal of statism during the first two decades after independence, such reconciliation only became possible after 1967. This was the result of the works and discourse of an emergent generation of architects, new sabra architects

514 The two major episodes around which Nitzan-Shiftan emphasizes this divide is the 1930s modernism acclaimed through the Tel Aviv circle of architects and the 1950s early architecture of statism and its historiographical reappraisal following the 1984 The White City of Tel Aviv exhibition and catalogue and 2000 The Israeli Project exhibition and publication.

515 53.
(Israeli born or raised), who started practicing and revising the agenda from the mid-1960s openly adapting local Palestinian architectural idioms of building in stone.516

The return in the final two decades of the 20th century to the white architecture of Tel Aviv and to the gray architecture of the state communicates a desire to move away from nationally and colonially laden regionalism through the endorsement of the seemingly neutral idioms of the white-washed international style and the gray Brutalism. Nitzan-Shiftan describes the new adherence to these architectural idioms as indicative of the will, instigated also with the onslaught of *intifadas*, to reimagine a state exempt from its nationalist and colonial heritage. Citing architectural journalist Esther Zandberg’s comments on Efrat’s work, she writes:

> The modern frontier, which is celebrated most spectacularly in Tel Aviv, has separated the secular Israeli elite from both the Palestinian Other and Jewish nationalism…. These structures shaped both the country’s landscape and consciousness during a period when the “sanctity of the people” was not embodied in ancient stone walls and the tombs of pious figures, but rather in purposeful, innovative buildings, secular to the core.”517

Through these claims, Nitzan-Shiftan framed Tel Aviv’s international style heritage and the gray Brutalism of early statehood in similar terms. In so doing, she offered another vantage point from which to think of the contingencies, relating Tel Aviv’s urban fabric in Efrat’s analysis with his notion of gray architecture of the state. Two related arguments she makes are significant here. First, that whiteness and grayness should be both viewed

516 Ram Karmi serves as a protagonist of this reconciliatory strand.
517 Alona Nitzan-Shiftan, (2009). 55. See also Nitzan-Shiftan’s comment: “Anchored in the latter, architects and critics have recently articulated their position through the built landscape of Israel, its history and its preservation. In their view, the regionalism of stone is associated with ‘a national camp,’ while the modernism of concrete stands for ‘a peace camp,’ which has endorsed its properties as the indisputable emblem of Israeliness. The promotion of the ‘white’ and ‘gray’ architectures of the Zionist and Israeli projects thus indicates a process that ventures far beyond historiographical trends. It indicates, I argue, a growing internal border that is fabricated between the architecture of the Israeli state and that of the Jewish nation.”. 53.
as contiguous with nationalist and colonial politics, rather than as separate from them. Second, that Nitzan-Shiftan plea to reconstruct a statist discourse on place (i.e. one that reconciled national-ethnic and a secular-civic approaches) should be extended backwards in time, before the moment of 1967, to allow restoring a more nuanced understanding of how architects, administrators and publics have understood the architectures of the 1950s and 1960s to be functionally civic yet bound with national yearnings.

5.6. Conclusion:

Through the design of cooperative and land development institutional headquarters in Tel Aviv from 1949 to 1971, this chapter has illuminated the engagement with the functional civic design of Shmuel Rosoff, Michael and Shulamit Nadler, Shmuel Mestechkin and Arieh Sharon, and Benjamin Eidelsohn. The analysis emphasized the ways in which the different models of Tel Aviv’s architectural modernism were hybridized precisely within the field of the political representation of Labor Zionist institutions. This has three implications relative to the understanding of these case studies that further resonate with the historiography discussed above. First, commissioning administrators, architects, and journalists attempted to situate these institutions both territorially and locally. This implied a deviation from a “non-localized” or top-to-bottom practices that have characterized Nitzan-Shiftan’s and Efrat’s interpretations of the modernist architects’ adherence to labor Zionist politics in 1930s to late 1960s modernism.

Second, the territorial marking of these institutions was achieved by articulating notions of a functional building and standards of a piece with broader assumptions about
Israel as a productive place. Designs communicated these assumptions through motifs and symbols and through structural, material, spatial, and urban architectural vocabulary. These designs were not the product of the architecture that evolved after 1967, which referenced a Palestinian vernacular as proposed in Nitzan-Shiftan’s work. Rather, they communicate earlier architects’ efforts to substantiate the notion of a Jewish nation that was intrinsic to Ben Gurion’s ideal of statism.

Third, through such territorially and culturally embedded inscriptions, Labor Zionist civic architecture did not simply disavow its colonial project. Rather, it represented it in diverse ways. This chapter has concentrated on the metropolitan nodal points of a larger system of settlements, agricultural production, and distribution. It attended to the commonalities between their institutional and urban settings and their architectural conception, and the ways in which the reciprocities between these two aspects determined the historical reception and expectations of these designs. I have shown how the expectations and reception of these headquarters designs fed claims concerning social representation and the figuration of a political subject.

Sharon’s comment on the Agricultural Civic Center resonated with a major proponent of cultural Zionism, Ehad Aham. The latter understood the national moment of a sovereign state as an occasion for Jews to overcome their Diaspora existential split, a split in which one’s Jewish identity had to be concealed in the public civic sphere and disclosed only in the domestic sphere or inside oneself. Sharon’s emphasis on the

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518 The question of making of Jews productive, specifically relative to their immigration to Palestine, was central to Political as well as cultural Zionism in the first decades of the 20th century (see discussions in chapter 1 and 4). For an analysis of Jewish agricultural engineering culture as it responded to the ideal of Jewish productive capacities, see Derek Pensler. ibid. Tamar Novick’s dissertation on the fertilization practices of animals in Palestine Israel points to another semiotic field – based on the notion of a “land of plenty” - that was construed under such cultural and political ideals. Novick. Ibid.
material continuity of the reinforced concrete proclaimed the sincerity of a straightforward Israeli character. With this anthropomorphic image of united outer and inner features, Sharon inverted the type of expression that was used, to various degrees, in the other case studies examined here. In spite of their differences in approach and assumptions, all these designs betray a shared understanding of the pre-state period and pioneering as defining the matrix through which the material and technological expression of Israeli functional building should gain symbolic impetus.

Such symbolic capacity had to be restated against a growing sense of a lost bond between the cooperative collectives and their representative urban organs after independence, specifically as this loss was displayed in the space of Tel Aviv. Sharon’s defense of an economic structure, operating vertically and horizontally, sought the gathering and stabilizing of an administrative body that became, in terms of its urban icons and social practices, both ambiguous and mechanically over-articulated. To these social and identity-laden ends, architectural ideals concerning the functional and frugal civic building maintained their recurrent symbolic resonance. They were mobilized and questioned in light of the wave of cooperative institutional consolidation focused in the city of Tel Aviv after the 1930s and after independence.
5.7. Texts Appendix:


Recently, the director of the Agricultural Cooperative Union turned to the director of the Federation of Workers and proposed an alternative: Mr. Beker [director of the Federation, m.h.] either would broaden the influence of the Agricultural Cooperative Union, or would decide that the Union was unnecessary and abolish it…. the advice that should be given [to the head of the Federation, m.h.] is that of abolishment… the person seeking for justification can find it in the famous theory of Northcote Parkinson, the person who theorized the malignant bureaucracy…. There were times during which the Agricultural Cooperative Union played a significant role. The Agricultural Cooperative Union exists because it exists and has existed for decades; it exists and can expand even if it does not fulfill any useful function, as in these days it founds a high-rise in one of the central streets of Tel Aviv—and the destiny of an office high-rise is that it will be filled with clerks and that crowds of people will enter and exit it carrying plastic bags under their arms. In short, the Agricultural Cooperative Union is a prototype of Parkinson, the model in which exists all of what the English sociologist described in abstract terms. There was a time in which the Agricultural Cooperative Union fulfilled an important function: It unified the manpower that was necessary for agricultural settlement, and it represented the factions of Federation-based settlements *in front* of the national institutions that were close to the funds and distributed budgets [my italics, m.h.]. This was the important era of Avraham Hertzfeld. However, that era has long since ended. These days the settlement [agricultural settlements, m.h.] no longer has an important stature and as for representation and the collection of funds for settlement—the settlers’ associations themselves are doing this, through the ministers that they have found in the government. For the Agricultural Cooperative Union to have a useful function, justifying its existence and the high-rise, one has to look back 30 years; to remove the representatives of the Working Settlement (*Ha’ityashvut Ha’ovedet*) from the government and to renew the momentum of settlement. As all these are impossible…. the conclusion must arise from a dichotomy: to be (according to Parkinson’s theory) or not to be (according to common sense). And in fact Mr. Shapira [current director of the Agricultural Cooperative Union, m.h.] claims that in the growth of independent action of the settlement associations resides a danger of “loosing the restraints of the commands” [*Prikat Ol Mitzvot*, referring to the Jewish religious commands, m.h.] and turning away from “concepts of value” and there may have been those who would agree with the person complaining [referring to Agricultural Cooperative Union director Ytzhak Shapira, m.h. if the latter had expressed those values more explicitly. However, there is a foundation to the doubt that his expression of those values remained implicit, as one would have discovered that the discussed commandments and concepts of values were no longer valid, maybe because the circumstances of Israel in 1967 falsely enfolded
these "agreed upon lies" into Zionism. Seemingly not everything is lost. There remain functions fulfilling commands and concepts of values. For instance, holding packaging workers’ strikes at the height of the citrus export season (these days, this is the only meaning of the representation of the hired agricultural workers)… …But the first and vital role can be filled by a modest section in the Federation directory board. The other functions (those of the Agricultural Cooperative Union) are clearly useless, and as to the high-rise that is under construction—it can be delivered to other tenets of the kingdom of Parkinson.


We sought to ascribe to all the Kibbutzim (collective settlements), the moshavim (cooperative settlements), and the agricultural administrative institutions of the Agricultural Cooperative Union the sole scale that is congruent with the farmer who comes to this house [a scale, m.h.] that corresponds to the customs of this land (Ha’aretz Ha’zot). We could build a bigger tower, such as the tower of the diamond exchange, but we said to ourselves that we will more effectively resolve the problem if instead of one house we create a group of buildings, an architectural ensemble. We sought to ascribe the buildings with the simplest character possible. This is expressed in the materials used, the interior design, and the exterior texture. The buildings’ material is the simplest—concrete. The sidewalk is regular pavement. Then we approach the conception of concrete. The sidewalk planters are also made of concrete. By doing this we have economized a lot, as the concrete cost us only 10 liras a meter, at a time when marble, mosaics, etc. cost 100 liras a meter. And we are proud that we have one building texture throughout (saviv-saviv) and that all the façades are clad with concrete. With this we ascribed to the whole building an Israeli character, simple and modest, as Israel should in fact be. However, to my regret there are already phenomena of American imitations [i.e., practitioners who follow other “less Israeli” models, m.h.]. As this is the case, our architecture should not aspire to go in these directions. We aimed to plan a special architectural conception. In the tall building, offices are concentrated around one core, as in the Jewish Agency for Israel and the Confederation buildings. Around the core there is an office area. In the low building, offices are located around patios. Green material patios with plants are a typical Mediterranean element. If there is waste in this building design, it is in the plazas (rehavot), and the expansiveness (rahvoot) is not in the offices, but at the bottom, at the house entrance (ba’knsa la’bayt) and above on the roofs. This expansiveness did not cost us much, because when we enter an open space, two stories high, the same space that is being rented in many buildings for shops, banks, and other functions, it is not like entering into a regular office space. This expansiveness is the most important characteristic of this house. By this entrance that is visually transparent, we raised the offices to the second and third floors and they do not suffer from the noise of the street. In this way we created the popular
and social touch among the many institutions that are in this house. Also, the surrounding gardens communicate with the building all around. The finish of the house was specially planned in the form of two halls. In comparison with all the buildings erected in Tel Aviv we gave this building a special construction of four columns, supporting not only all the house floors, but, as they rise to the height of the halls they also carry them. The assembly hall, for 250 people, is held in four points between the four columns, and as such we have the possibility to create, from an architectural vantage, the entrance of the house and to give a visual shape to the seed for the development of the cultural life of all the institutions that are in the house.


The building constructed by Solel Boneh [the Federation infrastructure and construction co-op, m.h.], a professionally executed high rise, could not be called a luxury building, but it has “something special.” Its outer form seemingly symbolizes its content. The content of the house of the Federation of the Agricultural Workers; dwelling of Israeli agricultures, of the working settlement, of the foundations (amudei ha’tavech) of the Federation of Jewish Labor (Histadrut) and factors important to the fortification, security, and independence of the state. In this house reside the representatives of the agricultural settlements that have contributed to the consolidation of the state’s national boundaries in the War of Independence. The representatives of the frontier settlements that served as the state’s security belt before the Six-Day War. The men of the old settlement that contributed to the state’s economic grounding and to the production of the supply for the state residents, the men of the young settlement that was an important factor for the integration of immigration and that proved that “the wandering Jew” became a man of work (amal) rooted in its soil … …The exterior shape is not important. The building, unlike many new buildings, like offices, private homes, and apartments, was not given new furnishings, but rather office furnishings from previous administrative locales, as appearance is not the goal. Here reigns only the spirit and power of man in his organizational and economic capacity.


First there was the settlement (the capitalist villages) of the second Alyia (immigration wave) that went to conquer the labor. While in terrible conditions that included abuse of the worker and competition with the cheap Arab workers, there was a dream of self-economy of settlers, based in creative fervor and the establishment of units/cells with no oppressors and oppressed.

The idea of mutual help led to the foundation of the workers’ committees in
the settlements Yehuda and Hagalil, and in 1911 the Jewish Agricultural Workers was founded (*ha'histadrut*) after the committee in the Galilee, and in A'um Juni (that later became Degania). In Jehoda that is in Ein Ganim in Petach Tikva, they later formed a united organization (Histadrut). With the inauguration of the house came the Union of the Agricultural Workers—of which the Agricultural Cooperative Union is the executive organ/institution, (as is the higher committee of the Histadrut (in the building on Arlozorov Street)—60 years for its foundation… …


“I did not realize that I would have to climb so many floors, then up to the roof, and stand here on stage to greet you.” He is complaining about the elevators that did not immediately respond to his call. “When I need to go up, I consider once or twice if it would be quicker to take the stairs than to wait for the elevator… I can move in a Turkish wagon (in the Yiddish folktale) that was moving back and forth on the rails and that had time. It seems as if the elevator’s time is infinite; it does not know that my time is very finite. This is why I cannot tolerate such a waste of time. As for the building in general, I must confess, I did not hope for this. I wanted to gather in it all this family. It is true that I do not have a real family of my own. However, someone knows what this family is. Who should I blame? Those who realized? I learned to thank them; well done! We have reached the point where we need to tell them the simple words one uses for the man who works and creates. I shake your hands and say, “You have done a great deed. What you brought, you brought, and it is not a small deed but a great one. However, is it already full and complete. All we do needs completion and realization, and those will be carried by the followers, who will do so after me. If only you will do so as early as possible! So that those who are above and those who are below will be supported. We shall be together. How would Ben Zion Israeli (Tzernomorsky) say it? ‘Together, together friends!’ This ‘together,’ how much it adds! When we shall be together—then everything will be complete.”
6. Conclusion: Functional Buildings in Israeli Agricultural Cooperative Institutions

This dissertation has reconstructed the trajectories of the design of rural and metropolitan buildings in Israel that emerged as part of a culture of progress and development in the period between 1940 and 1976.\textsuperscript{519} I have analyzed two architectural programs — the cowshed and the administrative headquarters — and the roles they played in shaping Israel’s development trajectories, with the architectural practices of Emmanuel Yalan and Arieh Sharon as crucial examples. These two programs jointly determined pre-state and post-independence functional design approaches under cooperative institutions. I have shown how, in the context of changing institutional and disciplinary-architectural settings, they substantiated architectural claims regarding Israeli civic space.

Independence imposed a political-institutional transition from a culture of agricultural cooperatives to state rule. At the same time, after independence, Israel experienced an architectural-disciplinary transition from inter-war modernism, predicated on New Building (\textit{Neues Bauen}) approaches, to comprehensive planning and development, in which regional thinking prevailed. The juxtaposition between these historical transitions shaped both the cowshed program and that of the administrative headquarters: architectural vocabularies changed, as did design strategies and the sorts of expertise architects developed under the challenges these programs created. In turn, the significance these programs gained within the pre-state and postindependence architectural discussions relative to cooperative settlement agendas affected the understanding of these transitions.

\textsuperscript{519} For a description of Israel in these terms, see Arieh Sharon (1952). 8. See Also Alona Nitzan-Shiftan, (2009).
The cowshed program and the administrative headquarters program were analogous in that each defined both a challenge to and an epitome of functional design thinking in the context of cooperative agricultural institutions. In their distinct functional modalities, the two programs were harbingers of the use of Israel’s form of modernism for the representation of sovereignty by co-op institutions. Beginning in 1908, the cowshed became a foundational program for the establishment of cooperative rural development and economy. Characterized by a strict calculation regarding cost reductions and productivity, the program was one of several emblems of radical functionalism within co-op settlements outside the traditional remit of architectural design.

Co-op administrative headquarters also reflected the functional approach, though to a decidedly different type of structure. These buildings articulated and facilitated the centralization of administrative and cultural functions in the city, as well as the larger development mission that spanned the entire country. While the urban location removed these functions from the rural context of biological imperatives, their architects and commissioners expected the headquarters to attain civic visibility and to represent the institutional ideals of frugality and austerity. The unique requirements with respect to décor, visibility, and representation challenged their designers to conform to both the functionalism of the cooperative economy and the need for civic expression. In that respect, these requirements set the terms for a translation and sublimation of the functionalist biological rationale of cowsheds, and associated programs into an urban representation and expression of simple, economic character.
With the transition into statehood, a translation of the language of the New Building into regionalist thinking paralleled the integration and subsumption of co-op institutions under state institutions. The pre-state representation and expression of simple economic character gave way to designs that would form optimal components within a comprehensive regional framework of settlement and cooperation. They would also, by extension, ignite positive dynamics of regional development. With the new regional emphasis on comprehensive planning and design, functionalist attention turned to the correlation of micro (building) with macro (urban-territorial) scales of design.

In the 1956-1964 period, following the dual institutional and architectural transition, the cowshed program served to articulate a flexible system of design thinking. Through this program, settling authorities sought to devise optimal conditions that would initiate new farmers into cultivation practices and future stages of agricultural and economic development. Cowsheds were conceived as production facilities whose erection depended on the exchange and cultivation of knowledge and techniques between pre- and post-state settlers. While projecting agricultural modernization, the cowsheds’ low-scale, user-oriented approach, together with its adaptation to changing settlement patterns from both the pre-state and post-independence era, determined their hybrid functionalist nature as both universal and local.

As cowshed designs began to respond to scales of specialized milking production, planners and architects gradually conceived them outside this transitional purview. Ultimately, they envisioned this program in terms of an industrial capitalist farmstead that would be located outside of the habitat area in the cooperative village. This turn,
which manifested itself in the second half of the 1960s and early 1970, points to the moment in which the cooperative workers’ village, and Israeli regional cooperation policy by extension, completed a cycle. By 1970, cooperation was predicated on small group initiatives to establish competitive capitalist enterprises at the level of the village or the region.

In the case of the cooperative administrative headquarters, their cross-territorial mission and urban simplicity were pursued primarily through new civic complexes: governmental centers, hospitals, and universities. These new ensembles allowed architect-planners to re-posit the pre-state values of design for administrative headquarters through a new regionalist developmental vocabulary. In this context, these administrative programs became one of the main historical origins for the formation of a new, newly comprehensive civic complex. These ensembles consisted of basic functional components and formed a regional arrangement; architects and state administrators came to understand them as simultaneously creating an ensemble of buildings and a larger territory. They remedied the more segmented vision of urban functions inherited from the 1930s CIAM thinking and re-positioned architectural design as a civic value, with implications for the positive development of the region.

As I have shown, independence and the attending change in disciplinary vocabulary shifted the status of both programs. They partially lost their prominence in favor of programs that more effectively represented the thrust of Israeli regional planning. Regional agricultural processing plants and civic programs such as hospitals and universities gradually took the place of these programs through the 1960s as symbols
of civic functionalism under the new institutional and architectural vocabulary. Yet, as the two major hallmarks of the functionalist credo framing the spectrum of pre-state co-op design, these programs held foundational status in the Israeli architectural profession. This dissertation has reconstructed this status through the history of their designs (in chapters 4 and 5) and relative to the roles these programs played in the conclusive monographic and institutional publications of Sharon and Yalan (chapter 3).

The cowshed, in the transitional moment I have surveyed, defined a small-scale, tentative measure of development, by which optimal economy became ingrained through agricultural field experiments. These experiments transferred knowledge between farmers across cooperative settlements and regions. The cooperative headquarters defined a program expected to resonate with the basic simplicity and arduous beginnings of pre-state cooperative settlements. They were judged relative to their capacity to form a large-scale regional civic center, and by the rhetoric of comprehensive planning more broadly. Not all headquarters achieved this ambition. Nevertheless, the measures of functionalist economy and relation to a new understanding of the pre-state cooperative institutions in these new headquarters relied on rhetorical and expressive strategies, such as material and spatial configuration, décor, and the integration of artwork.

Through analyzing the role of the cowshed and the administrative headquarters in this historical transition, I have sought to offer a more nuanced account of the architecture culture that emerged after 1948. In particular, this analysis challenged prior research that describes a sudden switch from international modernist style to Brutalism, emphasizing the coherent nature of the latter moment, as the effect of state commissions
Indeed, in view of the discrete and formative trajectories of design that unfolded through these two programs, it is clear that the culture of progress and development was not based upon a unique model of architectural thinking. Moreover, this culture did not summon clear-cut and fixed correlations between the idea of Israel as a forward-looking nation and design thinking resulting in a common vision (what current historiography referred to as “grayness,” or “state architecture”).

As I have shown, each of these typical and formative strands of practice emerged through negotiations. They occurred in a chronological sequence between cooperative ideals—originating in the pre- and post-independence periods—and between functionalist design credos—New Building and comprehensive planning and design. Negotiations took place simultaneously. They were shaped by the relations between these two programs, as well as other programs typifying similar values, invoked within an architectural system of meaning. These negotiations consisted of oppositions, analogies, and translations of values between the rural and the urban, and between technical-economic design tasks and representational institutional ones.

As I have shown, the notion of comprehensive design or planning became a central trope in the post-independence architecture culture under state agencies. The term *comprehensive* generally signified a correlated project of design (or architecture) and planning. It invoked the social reformative capacity modernist architects sought to assume in regulating matters of urban planning and civic design. Additionally, the comprehensive practice of planning and design referred to the architects’ capacity to lay

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out the physical, social, and economic frameworks of the region, and by extension the state’s civic space, through functional organization.

In terms of the political-institutional and architectural transitions charted through this dissertation, comprehensive planning and design minimized the discord between the various instances that were mediated through these transitions. Design comprehensiveness referred to the power by which state-planning institutions would devise the architectural figure of the region as a revised framework of cooperation and pioneering. Inter-war basic functions became the measure for this regional state development.

Notions such as grayness, state architecture, and the architecture of progress and development, which architectural historiography currently uses to describe the period after independence, have invoked an image of political-architectural synchronicity. This dissertation challenges this claim: comprehensive synchronicity was at best an unrealized ideal. While administrative headquarters and cowsheds for the agricultural cooperatives were positioned within the history of local claims relative to comprehensive civic design, each also indicated that comprehensive civic design remained beyond the architect-planner’s grasp.

By reconstructing the distinct modalities by which functionalist reasoning negotiated its values, both historically and against a territorial system of programs, chapters 3, 4, and 5 revealed that the synchronicity between progressive welfare politics and Israeli design practice was partial. These chapters have highlighted that in these negotiations the functionalism of progress and development was at best hybrid in nature.
This hybridity consisted of the ways designs in this period summoned and were indebted to a proto cooperative history of nationalism. Hybridity also defined the recurrent stakes of economy and resource scarcity that architects identified with the rural and, after independence, regional cooperative settings. I have argued that through these hybrid formations, Israeli architects understood the culture of progress and development to be embedded both in a longer history of the cooperative experience and its ongoing larger-scale implementation.

Towards the end of the period surveyed in this study, new political and economic conditions and new settlement directions emerged, as did circumstances more directly related to architecture culture. From 1967 to 1985 the cooperative settlement movement underwent a drastic transition, as a large-scale bankruptcy succeeded a period of fifteen years of economic prosperity. The national and movement-based credit mechanism that had supported the movement since the 1950s weakened, leading to a gradual process of privatization of real estate and collective resources in the cooperative sector. This economic crisis coincided with the gradual loss of the movement’s status as a leading productive sector in Israeli society and representative of the nation’s pioneering character. These changes occurred in a larger context of Israel’s transition from a welfare state, which was itself based on a modernization agenda, to a neoliberal economic regime. The fall from power of the Mapai (labor) Party through electoral defeat in 1977 and the rise of a populist political right politics was a marker of this transition.


Likud supplanted the Mapai party in power in 1977. Wide scholarship addresses the roots of this party in the Revisionist movement that separated from Labor Zionism in 1934. Historian Anita Shapira emphasizes the
the period after the 1967 Six-Days-War and the military conquest of west bank, the Sinai peninsula, and the Golan Heights, Israeli settling authorities re-defined national colonization imperatives relative to the civil occupation of these new territories. This development gave space for the promotion of new forms of settlements: the non-residential Industrial village (kafat), the non-residential dormant village (Yeshuv domem) and the communal (non-work based) settlement (yeshuv kahilati).

Architecture reflected societal shifts. Sabra, Israeli-born architects, including Eldar Sharon, gradually distanced themselves from the modernist design credos of the founding fathers of the modernist state. In contrast to the 1960s architects, whom I have discussed in chapter 3, Sabra architects made overt claims for an architecture of the “place” or of the “city.” The younger generation’s reference to these postwar European and North American tropes became a way to claim a nationalist bent over what they considered the dry and alienating culture of the secular modern state.

Weakening of the historical conditions that had bolstered the Israel labor movement; including the priority of the workers movement in establishing sovereignty, managing immigration and settlement under emergency conditions (from 1881 and until the first decade after independence), and the gradual turn of the state’s economy to neoliberal venues that have weakened labor politically and ideologically. See Anita Shapira. (1987). 355-357. Sociologist Yonathan Shapira emphasizes the failure of the labor movement’s leadership to cultivate younger leaders and its failure to attract the support of Jews from North Africa and Asia who felt that the pervading social mobilization paths privileged Ashkenazi elites. In Yonathan Shapiro. An Elite Without Successors, Generations of Political Leaders in Israel. [in Hebrew]. (Tel Aviv: Sifriat Poalim, 1984). 524 New settlements were not categorically identified with a settlement movement. They were often located on hilly lands that were particularly arid, and residents did not farm on them. Another form of settlement also arose at that time, the observatory settlements (mitzpi'im) that were part of an ethnocentric Jewish control over the Galilee and went back to the 1950s. For a summary account on these forms of settlements in the period following 1967 see Elisha Efrat. Rural Geography of Israel. (Tel Aviv: Achihasaf, 1994). 115-129.

Ram Karmi made a typical critique of the bureaucratic character of the architecture of the 1950s. Cited in Efrat. “Concrete”. Ibid. Vol. I. Israel Goodovich, who studied at the Technion under Alfred Neumann in the 1960s and became the head of the Department for Rural Planning in the Jewish Agency Settlement Department in the early 1970s, and the architect planner and pedagogue Michael Kuhn, who won a 1967 competition for the plan of a united Jerusalem, made similar arguments. See Goodovich. Red Tape, a Contribution to Parkinson, an Architectural Flow Diagram. [in Hebrew, exhibition catalogue]. (Tel Aviv: Sonol, 1980). And Kuhn, ibid. See discussion in chapter 5. Despite their critical stance, these and other architects of this generation were deeply connected with the Labor movement, and its institutions shaped their careers.

In the 1970s, this ongoing transition distinctly affected their design practices. Sharon commented in the last chapter of *Kibbutz + Bauhaus* on the seemingly smooth generational exchange between himself and his son Eldar. This exchange occurred in the context of state projects, which had been formative for the elder Sharon. Yet, there were very real stylistic breaks between the two, with Eldar and his generation’s turn to morphological experimentation with concrete and mega-structural and semi-topographical building systems creating an aesthetic quite distinct from that of his father’s. But Arieh Sharon sought to cast his son’s style as a fulfillment of a logic of economical and clear work, the natural sequel to his own first experiments at the kibbutz and for the co-op institutions.

Eldar, in fact, remained indebted to the father’s professional trajectory after Sharon’s death in 1984. The firm’s expanding practice, involved many large-scale institutional commissions, primarily in the hospital campus sector for which his father had created master plans. Thus he filled in the comprehensive regional plans his father had laid out in previous decades with a new language of design, dispensing with his father’s assumptions that the micro and macro scale should have expressive unity.527

The work of Jacob Maos had a similar relationship to Yalan’s. Maos took a leading role both in the Jewish Agency Settlement Department development projects outside of Israel (beginning in 1963) and in laying the contours of the Israeli cooperative village in the age of specialization from the 1970s. He developed settlement plans for the Golan and the Gaza strip as well as within the green line. These plans represented a shift

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527 Karmi-Karmi-Meltzer, Rechter, Zarchi, Yaski-Gil, and Nadler Nadler Bikson were the other major firms that evidenced similar phenomena, with the mechanism of the Federation and the State leading to commissions in the 1970s and 80s.
to placing cowsheds and other semi-industrial plants, such as hothouses, outside of the villages. This re-location of the production spaces supported the understanding of the cooperative village as another symbol of the suburbanization and privatization of the Israeli rural sector. Yalan’s emphasis on the optimal coordination of micro and macro planning remained a central concern in Maos’s practice for the Settlement Department. Yet he relegated comprehensiveness to rural planning, rather than to rural building design. The latter became an entirely privatized practice in the 1970s, in which other disciples of Yalan from the Technion began to specialize.528

6.2. Historicizing Post-World War II Functionalism

This study has advanced several insights relative to its specific object and methods of inquiry. First, by separating the analysis into different sections on architectural writing (chapters 2 and 3) and design (chapters 4 and 5), I sought to gain a certain analytical clarity. This separation, to which each of the sections attest, have, nevertheless, been repeatedly transgressed through them. Relative to Israeli architectural historiography, the dual perspective on writing and design practice foregrounds the historically engrained nature of local architectural discourse and culture.529 It also highlights an understanding of architectural practice as a proper field of reception, imbued with intrinsic and coherent disciplinary logic.530 Rather than claiming that architectural-disciplinary autonomy exists, I suggest that the different modalities of

528 Among these were architects Uri Brill and Yehuda Sprecher and engineer Uri Kofman.
529 This reading joins earlier efforts to address architectural discourse production, such as Zvi Efrat (2004) and Alona Nitzan Shiflan (2002). This dissertation has opted for both a more systematic outlining of general conditions of discourse and the reconstruction of inter-related threads of functional design.
530 Such analytic direction complements a more heteronomous and politically operative model of reception in which reception is recurrently judged against the urgencies of a present condition. An illuminative example of such a perspective appears in NitzanShifran. (2009).
professional knowledge (the written word, drafting, and design) serve as venues through which one can explore the entanglement of design in an institutional history.\textsuperscript{531}

From a vantage point less confined to the Israeli context, the dissertation sought to contribute to our understanding of two inter-related issues invoked by the theme of modernist functionalism: its articulation in the post-World War II culture of modernization and development and its definition within a national, and partially global, political economy. The first issue concerns the ways in which functionalism was characterized in the postwar period. Seen here through a nationally defined case study, this functionalism was marked by the mediation and translation between various cultures of design. Often, architects trained in the pre-war period, and working after the war for local or more global development agencies, had to translate their assumptions regarding the modern functional building (the simplified programmatic, aesthetic, and construction-based rendition) and its effects (expression, representation, economy, or pre-disciplinary everydayness) through the lens of modernizing development agendas. Such translations occurred as much through architectural writings as they did through actual designs. The acknowledgment of these modalities of translation grounds an understanding of the semiotics of functionalism. This topic is commonly understood to be non-semiotic in nature.\textsuperscript{532}

A second issue follows from these observations about method. The dissertation has shown that the civic implications of functionalism in the postwar period—its


representational or expressive value—were not only a matter of translations of pre-war thinking into the paradigms of development. They were, instead, translations that occurred between the discipline of design (its historical and instrumental categories) and cultures of modernization and development that had been defined before experts, engineers, and economic planners began to dominate design. Specifically, this dissertation reconstructed these cultures through the history of Jewish and Israeli cooperative and land development institutions.

I have shown that these institutions formed a crucial setting for the articulation of localized functionalist design thinking. Acknowledging these institutions as pre-disciplinary settings has shaped a national political economy that involved attending to the continuities and ruptures between distinct functionalist rationales. As read through the two programs at the center of this study—the cowshed and the administrative headquarters—these rationales consisted of biological and aesthetic approaches. These approaches delineated the spectrum of functionalist design relative to cooperative institutional commissions, networks, and economy.

These biological and aesthetic approaches, as read through the designs of and writings on these programs, do not suggest that functional building was perforce expressive or representational in nature. Current historiographies and modes of architectural historical inquiry have laid out paths of investigation that make sense of urban functional building design— as architectural and art-based configurations, and through their realization of public expectations. Functional urban buildings were also understood in terms of the displacement of value and meaning from what architects and
historians have understood as analogous and complementary designs tasks. The exchanges between these tasks—rural and urban—occurred on both historical and territorial sequences (through references to a foundational moment, or to a non-modernized territory) in which rural buildings often served as gauge for design in the city.533

While rural design tasks provided a recurrent subtext of functional thinking, actual design knowledge, as seen through the case of Yalan and the historiography on functional buildings, rural programs were relegated a more tenuous position in the establishment of architectural meaning. A range of circumstances determined the expression and representation of rural programs seen in this study; on the one hand, architects and engineers discussing these programs referred through them to an absolute notion of functional or bios-driven design. They did so literally, in reference to issues of operation, cost reduction, and productivity. But the transposition of broader cultural and architectural values over them also enacted the influence of the rural design on the urban. Through such transpositions bios was civilized.

This complementarity between the rural and the urban involved reciprocity, but it was not symmetrical in the sense that urban tasks had far more influence on rural ones. Both actual design practices and historiographical investigation of the urban/rural designs reveal this nonsymmetrical reciprocity. The rural served and substantiated urban ideas about functional building, and therefore gained a dislocated and transfigured visibility and meaning. Urban functional building therefore required the rural to give it meaning, because it performed a transposition of a task originally rural.

533 See Mallgrave’s account of the non metropolitan, vernacular origins to which late 19th century German discussions framed the notion of functional or sachlich. Mallgrave. (1993, 2008).
As I have argued, the relation between the urban and the rural complied with the logic that architectural historian William Jordy identified, in his 1963 essay on interwar modernism, as the essence of modern functional building, what he described as the translation “from fact to inmost essence.” Sharon discloses a similar logic through his references to “brute” rural contents that allowed him to claim architecture is art.\(^{534}\) However, the translation from brute to essential, which roughly correlated with rural to urban, involves a spectrum of modes of operation and meaning-making. By examining this spectrum and understanding the rural on its own terms, this dissertation has sought to clear a place in architectural analysis for a discourse that approaches Jordy’s essentialist interpretation carefully. In so doing, I have tried to convey the significance of engaging with a heterogeneous set of practices. While these often challenge the coherence of the archive and its latent arguments, they also disclose the manners by which functionalism was historically and territorially cultivated as a meaningful disciplinary and institutional phenomenon.

\(^{534}\)“From fact to inmost essence, which nevertheless holds onto the factual starting point: the tense ambiguous existence of what is at once within the work of art yet remains a fact outside it is the psychic and metaphysical equivalent of a visual system dependent on a tensional rather than on a gravity organization of form. This double condition of the brute thing, belligerently and mysteriously within its extrahuman realm, yet simultaneously grasped by human consciousness as an artifact of willed order and focused associations, evokes the condition of modern man.” “William Jordy. “The Symbolic Essence of Modern European Architecture of the Twenties and Its Continuing Influence.” in Journal of the Society of Architectural Historians, Vol. 22, No. 3 (Oct., 1963), 186
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Israeli Architecture Archive
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The Yad Tebenkin Archive
Yad Yaari, Givat Haviva Archive
Technion Main Archive
Architectural Association Archive. London
Ludwig Armbruster Archive – Dolem, Germany
Doxiadis Archive, Greece

Ofra Harel Private Collection
Yael Aloni Private Collection
Jacob Maos Private Collection
Shulamit Nadler Private Collection

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The feeding areas are open at the back, permitting the animals free movement from and to a wide roofed space (bedding area) and from there to a fenced-in yard at both sides of the building. The cows walk by themselves along an enclosure to the milking parlour, where the dairy worker is waiting in a concrete hollow shielded by iron bars against attacks from the animals. All he has to do is to fasten the suckers of the milking machine to the udders of the cows and afterwards to remove them again. Loading and transportation of cattle, too, are carried out without direct contact between men and animals. A movable platform with an ascending ramp is connected with the loading enclosure and the cattle are driven from outside up into the waiting truck. Restless or resisting steers are given an injection of a tranquillizer before being moved. These arrangements do not exist at the small holder's farm. Here, the peasant is exposed to sudden violent action from the animals throughout all stages of handling. A man has to be in close contact with the cattle while feeding or milking, even

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Arbeiterbank in Tel Aviv

Architekten Arieh Sharon & B. Eidelsohn
Mitarbeiter N. Paz
Innenausstattung: Dora Gad und Noy

Die Arbeiterbank ist dem Gewerkschaftshaus (uberschriften) angeschlossen, und ihr Ziel ist u. a. die wirtschaftliche Unterstützung aller koperativen Institutionen. So war die Arbeiterbank auch entscheidend an dem Aufbau der Kibbutzim beteiligt.

Das Grundstück liegt am Boulevard Rothschild und wird an zwei anderen Seiten von kleinen Straßen begrenzt, wodurch eine Untergarage mit Rampen zur Falltür nur möglich wurde. Da man die Seitensteine des Gebäudes nicht erweiteren konnte, erhielt sich gewisses Planungsschwierigkeit.


Die Konstruktion besteht aus einem Stahlbetongitter auf einem Bänder von 1,50 m Abstand in der Bauweise 6 m Schichtenhalle und Keller. Alle Bauten sind im Obergeschoss schmale Riegel belassen, während sie im Erdgeschoss auf der Giebelseite mit verbreiterten Bändern verkleidet sind. Die Gebäude sind vollflächenhaft, die Fenster bestehen aus Aluminium, in braun lackiert, die überwiegend mit einer einzigen Ausnahme all die Baustoffe und Ausbauten aus der heimischen Produktion nehmen.

Formal versuchten die Architekten, das Gebäude so einfach wie möglich im Grundriss, Funktion, Konstruktion und Material zu halten und den örtlichen Gegebenheiten sowie dem dazugehörigen technologischen Niveau zu entsprechen.


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