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Abstract


This study examines a unique architectural phenomenon, namely the German settlement in Eretz-Israel, which begun in the last third of the Nineteenth Century. The importance of this phenomenon is in its considerable influence on later Jewish settlements in terms of modern planning, house design, and building technologies.

The study examines the affinity between the social, religious, and cultural contents of this group, and its expressions in the built form resultantly created. This is among the first documentations of Templer architecture to become public property, detailing the visual attributes, construction technologies, and changes this architecture has experienced in its historical, cultural and social contexts.

This qualitative study is based on the hypotheses that early expressions of this architecture was distinct, that there was evident interaction between Templer builders and planners and their local counterparts, and that this had a marked impact on later Israeli (Jewish) house design. The study utilizes methodologies borrowed from historical and cultural geography, field observations and recordings, and the connections between the historical, cultural and the built-up landscape contexts.

The study identifies architectural elements imported by the Templers from Germany, and those developed in Eretz-Israel, by comparing visual elements on the basis of photographical fieldwork, both in Israel and in Germany. Reference is made to German settlements in the U.S., formed at the same time by non-Templer German immigrants from the same regions in Germany, in order to identify general patterns. One section is devoted to two Templer settlements in the U.S., presenting unpublished data, and comparing the U.S. and Eretz-Israel Templer settlements.

The conclusions of this study characterize the phenomenon of the Templer architecture as a synthesis and result of various interacting forces, pertinent to local circumstances and conditions, which emerged as a new architectural style in the man-made landscape of the Holy Land.

The recommendations of this study: to further the study of the U.S. Templer settlements, to invest means and academic energy in preserving the historic Templer structures in Israel, and to incorporate the subject in architectural education.
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Glossary - Acronyms

AIA = American Institute of Architects.
APASE = Association for the Promotion and Advancement of Science Education.
CZA = Central Zionist Archive.
cm = centimeter(s).
HUD = (U.S. Office of) Housing and Urban Development.
ICTAF = Interdisciplinary Center for Technology Analysis and Forecasting.
JCA = Jewish Colonization Association.
IDF = Israel Defense Forces.
ITAC = Israel Trust of the Anglican Church.
KKL = (Keren Kayemet Le-Israel), the Jewish National Fund (JNF).
Km = kilometer(s).
MOD = Ministry of Defense (publishing house).
NS = National Socialism, the Nazi Party in Germany, and in Palestine.
PEF = Palestine Exploration Fund.
POB = Place of Birth.
TGD = Temple Society Germany.
TSA = Temple Society Australia.
UI&U = Union Institute and University.
URL = Uniform Resource Locator (internet address).
YOSH College = College of Judea and Samaria, Ariel.

Note: The terms ‘Eretz-Israel’ and ‘Palestine’ are used interchangeably here, although Eretz-Israel (‘The Land of Israel’ in Hebrew) is not a geographic entity as such, but rather a generic concept, while the Palestine of 2003 is not identical with the Palestine of 1868-1948. See discussion in Chapter Three, and maps 1 and 2 in that chapter.

Note: All the uncredited photographs and other illustrations herein were made by D. Goldman between 2000 and 2003.

Note: the reference system used in this document is the Humanities System, normally used in historical and cultural geography, and approved by the Israeli Academy of Science.
Preface

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The enthusiasm and empathy of many, in Israel and abroad, is what made this project so enjoyable and (at least for me) meaningful: Templers’ descendents, in Germany, in the United States and Australia; my Doctoral committee; persons in Israel with deep interest in the subject as Mr. A. Dressler, Mr. Dov Mayer, Dr. Y. Perry; Rinna Samuel who worked round the clock editing the document, and dozens of others whom I cannot thank enough and must resort to mention a name only due to limitations imposed by this format.

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D.G., Kiryat-Ono, Summer 2003.
Introduction

*The Templers and Their Significance in the Eretz-Israel Theater*

The *Templers*, Christian members of the Temple Society, the *Tempelgesellschaft*, originating in the Württemberg Region in Southwestern Germany, emigrating to Palestine during the late 1860s. (Commonly confused with the *Templars*, an order of crusader warriors, originated in various locations in Europe, who were active in Palestine in the 1100s, and were also called ‘Order of the Knights on the Solomon Temple’. The Templars were founded and centered in Jerusalem and their primary function was military; they were engaged in the defense of Crusader forts. There is no connection between the *Templers* and the *Templars*.)

The Templers were a significant part in the evolvement of *moderna* in Palestine of the mid 19th Century. Historians, historical geographers and other scholars of 19th Century *Eretz-Israel* ('Land of Israel' [Heb.]; see discussion of geographical and political boundaries on p. 85 below), unanimously noted the significant contribution of the Templers to the development of the country in the modern era, marking the appearance of the Templers’ Colonies as the beginning

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1 This name originated in the 17th Century, in fact from a Swiss Reformer, who strove to build up the "Temple of God" according to antique principles. (Carmel (1988), p. 7)
of the new modern agriculture in Palestine.\(^2\) Carmel (1977 and 1990), and Ben-Artzi (1988 and 1991),\(^3\) also pointed out this fact, as in many other realms of influence. Even the Templiers’ Jewish contemporaries in Eretz-Israel, praised the Templer Enterprise as such.\(^4\)

What is this phenomenon, which excited the imagination of scholars, and became an attractive and appreciated subject, on many levels and disciplines?

Briefly described: German immigrants who came to Palestine out of ideological reasons, who have succeeded to form seven colonies in an orderly and pre-designed fashion, and actually set the standard for a European settlement of the country, bringing with them, among other advancements, a new architecture, years before the Jewish settlers built their own colonies. These colonies stand today (2003), more than 130 years after erected, as a marker of a pioneering enterprise of a courageous group that challenged the hardships and won. Their enterprise became a benchmark to others that followed; they were forced to leave their colonies, which remained until today a marvel. The fact that we know who they were, can communicate with their descendents, can read their literature, walk through their structures and tie all the aspects together, makes the Templiers’ a very special study object, that can illuminate new knowledge about architectural theory, attitudes and change, relationships to other architecture and building traditions.

\(^2\) Gross (1976), p. 137; Carmel (1983), p. 144; Gorny (1987), p. 17; so does Talmann (1991) in the preface: “Scholars of Eretz-Israel are united in the assessment that this [the Templiers’] colonization was a successful venture from the Rural Settlement standpoint and stress the importance of the Templiers as significant contributors in various settlement aspects – especially in agriculture – in rejuvenating of the country.”


\(^4\) Carmel (1990), p. 201.
Carmel (1977) spelled out the contribution of the Templer Settlers to Haifa and by the same token for the entire country:

It is hard to exaggerate in the formidable influence of the German Colony on the history of the town […] these Templers added a considerable momentum to its development. A European component, whose quality is superb, and quantitatively considerable, has settled in town and introduced orders, which were not known before. No doubt, that with their culture and their excellent technical know-how, the hundreds of Germans have accelerated the process of progress infiltration to Haifa.⁵ [My translation].

A hundred and fifty years ago Eretz-Israel was nothing but a desolate province of the Ottoman Empire; today it is considered one the most advanced and developed countries, in all respects, architecture included. The Templers and their relatively short presence in Eretz-Israel must be credited for being a part of triggering that process. The study acknowledges this fact and describes the Templer’s residential architecture, as being the most influential and largest part, in terms of quantity of their architectural product, its development, and contribution to the built landscape of Israel.

Many factors and forces acted in the architectural arena of Eretz-Israel to bring about the impressive present-day Israeli Architecture. Among them: The Jewish colonies; the British Mandate presence and planning policies; the Bauhaus Movement; the settlement momentum of the Kibbutzim and Moshavim; the introduction of new, fast and industrial construction technologies and industry; and the socio-economical conditions which followed the establishment

of the State of Israel, in 1948. All the above will not be dealt with in this study; instead, this study will concentrate on analysis of the Templers’ residential domestic Architecture, a pioneering venture, acknowledged for its primacy. The Templers’ settlement of Eretz-Israel started on 1868, quite a few years before the first Jewish settlement. The first Jewish Colony, Petach-Tikvah, was formed in 1878, to be followed by many others. By the time the Jews started their settlement venture, there were already four Templer Colonies, designed and built professionally, by competent surveyors, architects and builders. This was a new and daring move in the reality of Eretz-Israel of the last years of the Ottoman rule. New settlements were a totally new phenomenon. Newcomers to Eretz-Israel could find a place to live in the old towns, which were there from ancient days; a new settlement was unheard of.

The Templers changed all that and set a certain standard for those who followed in later years. This primacy is the significant component: they were the herald of the new architecture, which forever changed the built landscape of Eretz-Israel.
The Purposes of this Study

General Discussion.

In every structure there is an imbedded intelligence. Beyond the obvious technological and aesthetical aspects, there is deeper, almost subliminal, statement(s), that of the person or the society on which behalf that person acted. These could be architects, builders, entrepreneurs, and other decision-makers involved in the process of making structures. Most buildings, are never designed by architects; these are folk or vernacular (see below in this page) structures which evolve as a tradition of construction and become part and parcel of that society’s culture. These too have an imbedded intelligence, which, if identified, can contribute to our understanding of the culture it represents.

‘Vernacular’ architecture is the term, which suits best the Templers architecture, as defined by Mercer (1975) and Brunskill (1981). Mercer definition says that “Vernacular buildings are those which belong to a type that is common in a given area at a given time,”\textsuperscript{6} and Brunskill’s definition is “[…] that sort of building which is deliberately permanent, rather than temporary, which is traditional rather than academic in its inspiration, which provides for the simple activities of ordinary people, their farms and their simple industrial enterprises, which is strongly related to place, especially through the use of local building

\textsuperscript{6} Mercer (1975), p. 1.
materials, but which represents design and building with thought and feeling rather than in a base or strictly utilitarian manner.”

Buildings not only last longer than humans; they also outlast them, leaving us with only the physical evidence, the relics, while those who created the buildings, are no longer available to tell about their culture, thought and design processes, the reasons for the creation of the buildings, the social, economical, and technological backgrounds. Buildings cannot talk, and we are left with no option except to do the talking for them. Palmer and Parsons (1998) wrote about the agenda of the archaeologists (of standing buildings) in addressing the very same issues, and by so doing to achieve a better understanding of the society that created the buildings. The same writers also addressed the process of change in building design and the meaning of the process in terms of our understanding of that culture.

Architects have been and continue to be, laggards behind others in understanding and harnessing the impact of culture on architectural design. We usually fail to realize what are the deeper meanings of our products. The whole idea that architecture has a historical dimension, a mirror of our culture; that it is rooted in ‘black holes’ which only archaeologists, cultural and historical geographers have challenged, is a mark of discredit to our profession. This study is therefore, at least in part, an attempt to step (cautiously) into this vacuum,

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8 Palmer & Parsons (1998a), Section 1, p.2.
learn something from these disciplines, and apply these values (as well as methodologies) to Architectural theory.

Some Supporting Examples

Some structures, once studied from the historical point of view, would change significantly the way we look at buildings, or their architects, or the society that created them. One of the most ‘taken for granted’ structures in Western civilization is the **Eiffel Tower** (built 1889). A historical geographer, or an archaeologist, seeing the structure for the first time, would probably ask some relevant questions: What is the tower doing there? Why was it built? What were the circumstances that were leading to its construction? (And, perhaps, the most important question): what can we learn from the presence of the structure and the structure itself about who created it?

Eiffel Tower stands for a lot more than just an assembly of structural steel elements. It tells a story of a daring architecture and engineering, its revolutionary design, and the resentment it created in the artistic and intellectual circles of Paris of 1889. The Tower became a reflection of the change in the way people perceived and appreciated architectural objects, and what was the center of public controversy, became the symbol of Paris and later of France. Gustav Eiffel, (*1832 +1923), the engineer responsible for the design and the construction of the Tower, became a cultural hero.

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9 Salvadori (1990), p. 126.
10 Ibid.
When we widen our knowledge of a building, as we just did, up surfaces a considerable volume of information about ourselves, our culture, our achievements, heritage, and history. This is the idea behind this study. If it is true that buildings say a lot about us, then studying them within the historical, social and cultural contexts will eventually result in new and relevant knowledge.

Another local example, *Water Towers in Eretz-Israel*. In the reality of architectural development in Eretz-Israel, water towers were a significant milestone. Beyond their being an eminent element in the built landscape, they represented much more, as so vividly outlined in the works of Azaryahu (1994), (1996), Nachmani-Schustermann (1994), and Omer (1994). Water towers have become a part of the iconography of the Jewish settlement movement, a part of its mythos, an indispensable element in the defense of the settlements, and later markers of heritage.\(^\text{11}\) They became unique structures, integral part of the history of the *Yishuv* (the ‘Larger community’ [Heb.]), the same way as do ancient graves, or monuments, or even special trees, containing a symbolic value, beyond their functionality.\(^\text{12}\)

Hundreds of appearances in applied Israeli graphics have contributed to establishing of the water tower as an icon of the legacy of pioneering and early settlement.\textsuperscript{13} 

What is a building? Is it structure and shell, or what a specific building stands for? Probably both: a combination of design properties and the context into which the structure is being built. In acknowledging this understanding, we can learn a lot about ourselves.

\textit{Purpose of the Study as Background for Research Questions}

In light of the above, several areas of investigation have been developed, to challenge the issues this study attempts to examine. These are the generators of the research questions, discussed in the ‘research questions’ section, p. 11.

\begin{itemize}
\item Description, analysis and discussion of the constituents of the Domestic Architecture of the German Colonies in Eretz-Israel.
\end{itemize}

\textsuperscript{13} Tratakower (1994), p. 63.
Description, analysis and discussion of the Templers settlements and architecture in the U.S., namely Tempelfeld and Maresa, as such, and as a means of comparison with the Eretz-Israel settlements.

Description and discussion of the architectural elements in Palestine and Germany which influenced the development of Templer architecture in Eretz-Israel.

Description and discussion of the uniqueness and importance of the Templer Colonies as factors in shaping architecture in Eretz-Israel.

Description and discussion of the connection between historic processes and their manifestations in architectural expression.

Study discussion and analysis of building technologies implemented in Templer architecture.

Description and discussion of developments and changes that occurred in Templer architecture.

Discussion of Templer architecture in terms of style.

Discussion of Templer architecture in terms of change.

Understanding of the affinity between the spiritual and cultural aspects of the Templer culture and the built form they have created.

Time and Space Frames

Our main concern is the German Colonies in Palestine, started in 1868. The Templers gradually disappeared from Palestine between 1939 and 1948, but their activity as builders stopped shortly before World War II. In the U.S., the Templers’ Maresa settlement started in 1860 and disintegrated by 1865, and
Tempelfeld (started in 1885, lasting the longest), slowly losing its Templer cultural character from the mid 1920s. In Germany, the only Templer community was in Kirschenhardthof, (started 1856), which ceased to be a Templer center in 1873. The ‘Mennonite’ Templer section in Russia is not dealt with at all in this study, and deserves further research. The historical background data mentioned in this study goes back to the 1840s, both in Germany and Palestine.

Research Questions

Two basic questions with which this study is concerned are: what is the Templer architecture in Eretz-Israel? And what shaped it, in the sense of ‘Morphogenesis’ (see discussion in the ‘Matrix for Looking at the German Colonies’ section); the historical, cultural and other contexts involved in bringing about the built form. Subsets would be: the differences between Templer architecture in Germany, Israel and the U.S.; the dynamics of the development and change of that architecture; the input from other built environments and the output on to other built environments; these can be molded into specific research questions, generated in order to focus on the phenomenon:

1. Are there identifiable constituents of Templer architecture?

2. Were there elements of influence that shaped Templer architecture in Palestine?

3. Has Templer architecture influenced Israeli architecture?

4. Were there changes in Templer architecture? What were these changes?

On Methodology, Relevant Disciplines, and the connection to Architecture

“Becoming wiser about the past – more aware of its complexities and subtleties, more conscious of the historical depth and ambiguity behind the insertion of a chimney-stack or the addition of a rear wing, more conscious of our own underlying preoccupations biases – is surely the whole point of the study of vernacular architecture in the first place.”15

Zones of Interest and their point of convergence

Ben-Artzi (1988 and 1996) delineates three “research spheres” pertaining to study of man-made landscape phenomenon, representing:

1. A specific human group,

2. A time framework from the past, and,

3. A series of cultural aspects: Historical Geography, Cultural Geography, and the study of the group itself, all these representing a cultural-historical appearance.16

A study based on such a broad inter-disciplinary perspective may result in understanding the how’s and the why’s of a given physical appearance be it a house or a settlement, or even elements of a house, and would not stop with mere description.

*The sphere of Historical Geography* studies the geography of a given period from the past, assigns to historical geographers methods from both disciplines;

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these, in turn, become instrumental in the relationship between Geography and History. Ben-Artzi (1996) describes in detail the different approaches to this methodology and its development in various academic circles and locations, differentiating between two major approaches:

A. Geography of the Past – a 'Cross Section', for a given region, in which all possible aspects of a specific region are studied. This might be a region limited in size, a small settlement or a country.

B. Geographical change processes – a 'Vertical', narrowing down subject matter to a specific aspect of thematic geography which undergoes changes in a given time period. These changes are a major interest of research.

The sphere of cultural geography probes the cultural relics of a specific group, includes its material culture, and as a part of this, its' architecture. These material culture relics were created in such a way that they reflect cultural fabric, portraying that culture at its best. The underlying assumption in this approach is that the real landscape is an external expression of an subtle inner existence, with a content of symbols and meanings stemming from the social values and ideas of those who shape the physical landscape. In this sphere is included

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21 Rapoport (1990), pp. 36-43, in discussing the semiotic approach, studying the human world in terms of signs; Azaryahu (1996), p. 160 applies this theme to the water towers built by Jewish settlers, and describes them as "[…] the expression of the place mythos in the landscape."; the same writer (1998), p. 37 describes the water towers as "[…] icons of the local heroism mythos."; Nachmani-Schustermann (1994), p. 10, also writes about the symbolic meaning of water towers in the settlement movement of the Yishuv.
also the issue of cultural diffusion, as a major axis for study by cultural
geographers.\textsuperscript{22}

Goren (1992) also offers similar observations as to the link between various
spheres or disciplines. His research is related to the Germans who studied \textit{Eretz-
Israel} in the 18th and 19th centuries; the circles of research he duly identifies
ere: General history of \textit{Eretz-Israel}, with a strong affiliation to its cultural
geography; historical geography, or ‘the geography of the past’, and finally, the
History of scientific research, a totally different discipline connected with the
subject matter of the research.\textsuperscript{23}

Rapoport (1969) regards the way we need to look at the built form from a
multitudinal point of view. This approach derives from Cultural geography,
stressing cultural, spiritual and behavioral forces as having profound affect on
built form. He places the deterministic factors in the proper proportions relative to
the entire range of factors, attempting to synthesize and balance the leading
deterministic theories. Rapoport singles out the comparative analysis and the
historical perspective as fundamental in the study of built form.\textsuperscript{24} His perception
of the point behind this type of study is:

Through seeing other ways of doing things, we are made aware that there
\textit{are} other ways, that our way may be peculiar rather than inevitable, and
that our values are neither the only ones, nor the norm. Seeing other
methods helps us discover the distinctiveness of our own.\textsuperscript{25}

\textsuperscript{22} Ben-Artzi (1996), p. 36.
\textsuperscript{25} Ibid.
The connection between physical and spiritual factors as determinants of built form are associated with criticality. This suggests that, in modern vernacular, wherever there are physical choices, created by reduction of physical constraints, (reduction of criticality), socio-cultural factors become more relevant and affecting built form to a greater extent the.\textsuperscript{26} This is also the approach this study takes, showing that the house forms created by the Templers cannot be explained only by physical determinants; and that these alone can not and do not account for the shaping of the houses. The scale of comparison has bearing on the effectiveness of the analysis, the micro-scale being a preferred scheme, as larger scales might be too conclusive. In this study, the same preference is kept, while also maintaining a search for similarities and differences in different locations in order to identify common grounds, diffusions and the importance of social and spiritual factors in shaping built form.

\textit{The zones of interest} pertinent to this study are the socio-historical context, the cultural geography attributes, the Temple Society as a socio-cultural entity, and the architectural expressions to be found in the Templer Colonies. These are the realms touched upon in this study; and where they meet and overlap is the domain of the study.

\textit{Interdisciplinarity and Components of Research}

Rubin (2001) analyzes in detail the historical geography scene in Israel, presenting a debatable issue: the ratio between Geography and History - the two

\textsuperscript{26} Rapoport (1969), pp. 58-60.
components of research. He also defines historical geography as “geography of the past, or that intelligence range which studies the geographies of past times”. The most critical statement for our purposes is Rubin’s determination that the essence and target of historical geography is study of geographical changes, which have taken place over time, forming historical explanations of the processes affecting development of the cultural and physical landscape.

Significant studies of historical geographers may be divided into four sections:

1. The historical periods on which the research is concentrated on,
2. The location on which the research focuses,
3. The Contextual Section, namely the subject(s) of the study from a historical point of view, and,
4. The Thematical-Geographical Section, namely the secondary geographical realms from which the research questions generated.

This was the distribution of studies carried out in recent years by historical geographers in Israel.

Historical geography as a sub-discipline has these following methodological foundations:

1. **Fieldwork**: study of primary sources and comparison of these to field findings.

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28 Ibid.
29 Ibid.
30 Ibid, pp. 345-351.
2. *Research of historical archival sources:* concentration on a specific archive or group of documents.


4. *The unit of research and general context:* usually an inductive approach, characterized by starting off with a small unit, such as a single site, a settlement or town and through focused investigation, gradually opening up to a wider conclusive picture.

   It is helpful to compare between architectural historians and archaeologists: architectural historians traditionally regarded architecture as associated with fine arts, something appealing to the emotions, the finer senses; buildings studied by architectural historians have certain characteristics, or are built in a certain style. Identifying and describing these has been among the main concerns of architectural historians.³¹ Archeologists, on the other hand, seek to understand the cultural aspects of the society responsible for these buildings, by analyzing the material culture aspects of the relics; to a large extent, this study will attempt the same distinction, and adopt, in general terms, the division into research actions as delineated by Rubin (*p. 16 above*): Field work, historical sources, cross-section and vertical, and the inductive approach.

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Matrix for looking at the German Colonies

How to observe and learn from Templer structures? In cultural geography, the preferred method is to look at buildings from a specific point of view - aspects such as history, location, social aspects, climate, or construction techniques - reason being that vernacular, or traditional buildings, change little in the course of time,\(^\text{32}\) and, better understanding can be achieved by analyzing the buildings themselves rather than tracing their development. McDonald (1994) suggests four clear steps in the building investigating process: historical research, documentation, inventory, and stabilization. The inevitable connection between historical research and physical investigation is strongly emphasized.\(^\text{33}\) This applies more to fieldwork and as background action in terms of preservation, and touches on the connection between historical aspects and material culture of a specific cultural entity. A number of visual aspects in historic buildings serve as a means of investigating structures:

1. Identifying the overall visual aspects.
2. Identifying visual character at close range.
3. Identifying the visual character of interior spaces, features, and finishes.\(^\text{34}\)

Expanding this list, overall visual character may include shape, masses relationships, the structural system, openings, roofs and their features, colors, projections, trim features, the building and its environmental context, site features. Close range or ‘arms-length’ visual character may include materials,

\(^{33}\) McDonald (1994) p. 3.
textures, craft details, hardware, and the joining of different materials. Interior spaces observation may include individually important spaces, reflective of the general character of the structure, the relationship between major spaces, identifying sequences of spaces, their hierarchy, finishes and surfaces. Lawrence (1983) outlined a “matrix of factors” that bring about the built form in vernacular buildings: site layout, spatial organization of rooms, construction system, the building process, physical properties, nomenclature, the use, finishing, and symbolism of the building. Lawrence suggests that a structuralistic interpretation of the relations between these factors is a logical method of enhancing understanding of the built form.

A matrix that takes into account both the micro and macro perspective of the same entity and, links with historical background, as suggested by Lawrence (1983), makes for significantly deeper understanding of the settlements examined.

Methodology and Matrix: Interim Summary

This methodology of this research is based on the idea that the logic behind the methodologies described above must be borrowed and applied to the study of architectural aspects of Templers’ architecture in Eretz-Israel. Initially, this research touches on the same ‘interest zones’:

1. The Templers, as a historic socio-cultural entity;

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35 Lawrence (1983), p. 27.
36 Lawrence (1983), p. 27.
2. Their physical imprint on the landscape of Eretz-Israel, and,

3. The cultural landscape, the Templers’ actions and ideas, their ideology and beliefs, its dynamics, changes and influences.

The research domain-of-existence is, therefore, in the area in which these disciplines meet, creating a domain in its own right. Observations and analysis must also be borrowed from ‘cross section’ and ‘vertical’ methodologies: the possibility of viewing a collection of houses, sometimes even a whole settlement, and learning about the forces that create this architecture, within a given time-segment, in order to understand and reconstruct the reality of these environments. In the vertical methodology, one examines a particular item, or even a building detail, but along an extended time axis, in order to understand its development.37 Both perspectives serve the same end: to provide understanding of the ‘cultural engine’ which created the physical appearance, within the historical context.

This research attempts to address the same questions set forth by Ben-Artzi, from the standpoint of Templer architecture as an expression of the above: what was it that the Templers brought with them, what did they adopt and what were new, synthetic creations. Their architecture was a part of their material culture; it reflected their (changing) values at several points along their short appearance on the Eretz-Israel stage. The changes which took place in their values can be traced to and interpreted by their architecture; as this study will

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37 Ben-Artzi (1988b), pp. 4-5.
show, this architecture was, above all, a “portrayal of their culture at its best”, as was the settlement design, or their agriculture, or indeed everything else with which they dealt in Eretz-Israel.

The connection between physical evidence of the built form and its history is inevitable; as Lawrence (1983) has so clearly indicated, “In architecture, the relationship between space and time is a dialectical process between building form and social factors, between continuity and change, between permanence and flexibility.” Hoskins (1967) expresses a similar attitude, saying that buildings need to be placed in their human background and social history; without it, “we only dimly understand what we are looking at.”

One question which must be asked in connection with the above discussion, what is the difference between traditional architectural history and the approach adopted by this study. The answer lies in the expected returns; what does the researcher expect as deliverable: a mere description and overview of the phenomenon, or deeper insight into its causes and effects. This was the floundering noted at the beginning of the Project, answered by the approach suggested above. Without question, it creates an insight which is more inclusive, and far better explains the phenomenon. Perhaps this type of research when applied to architecture, will eventually define a new sub-discipline, historical architecture, (as distinct from architectural history) which feeds on the same contexts.

39 Lawrence (1983), p. 27.
40 Hoskins (1967), p. 94.
In light of this context: Which methodology? The best way to deal with this complex question is to start from the end: what is this study really after? It is about “writing human history from the physical remains of the houses,”\(^{41}\) namely, addressing the correlation between Templer architecture and history and culture, understanding the reality of their lives, values, motives and this culture. Their architecture reflects these and must be evaluated in this context.

Some selected generalized guidelines which need to be developed, for analysis of Templer architecture, would be:

1. **Search for cultural meaning.** The built form is directly influenced by what the Templers themselves thought about their cultural settings.

2. **Consideration of cultural relativity;** that meanings may vary historically, and geographically, especially important and valid when considering past cultures.

3. **Accepting that meaning is not always explicitly expressed** in the built form and needs to be articulated. Many features of a structure stand for a meaning not always grasped by the researcher because whoever designed and built them took them for granted.

4. **A researcher’s common sense is not necessarily the same as that of the subject.** Past realities may have different criteria of common sense and what might not make sense to a researcher could have been entirely sensible for the subject.

5. In a given house, values and meanings are active, and communicable through organization of space. The sequence of entry into a house, for example, is an experience that needs observing and experiencing in order to make recordable data of it.

It follows that an approach is required which will take into account the different levels, scales and contexts of a given architectural entity. The historical component in this study is essential, only inasmuch as it is needed for the necessary connection to physical evidences; this study does not intend to compete with historical documentation carried out extensively by historians and other Temple Society members (see literature review herein). A look into the Temple Society architecture needs to be done from the general to the particular, and dealt with in this study on separate levels: the Temple Society history and culture, the colonies development, and selected houses. The matrix for studying the Templer Colonies is proposed, consisting of the following components:

- General background: location, settlement development.
- Settlement design.
- Architectural expressions in the colony as markers of its character.
- Prominent structures in the colony.
- Architectural features and detail appearances in the colony.
- Cultural meanings as understood from any of the above.
- Aspects of change.
Discussion of the matrix criteria

A. General Background: The main historical and geographical aspects of a colony, in terms of general orientation and the historical circumstances in which it was formed; usually including documented mapping, marking the relative location, and some photographic data, relevant aspects of the location, i.e. natural features, climate, or other near-by settlements.

B. Settlement Design: since most Templers’ settlements were pre-designed, arguably the settlement design had some impact on the general character of houses and creation of the specific sense of place of each settlement. The larger geographical setup of a colony may have bearing on house design, as in the differences between urban and rural colonies.

C. Architectural Expressions in the Colony: comprising the architectural ‘sense-of-place’, are specific attributes of the colony; these could be associated with settlement design, but also with the built landscape appearance of the colony: the public functions and their architectural handling, relative location; the form syntax of houses, particularly prominent houses and the dynamics behind their appearance; identifying the physical features that make up the colony’s character.

D. Prominent Structures in the Colony is a part of C., but since it is a major part of the investigative process, needs to be dealt with separately. In every settlement, regardless of size, what generates identity of the place are, in part, the structures which stand out. Also, in many cases, a-typical structures with attributes essential for understanding the rest of the structures.
**E. Architectural Features and Detail in the Colony:** The built form consists of a number of components that need to be observed, recorded, and compared, as representing the built landscape of the settlement. These are the *construction materials; roof types; fenestration; inner division of the spaces; accessories in and around the house such as chimneys, fences, cistems, stairs; decorative elements* such as floor tiles or wall paintings; details of carpentry, masonry, or blacksmithing.

**F. Cultural meanings as understood from any of the above.** The built form as an index of meaning. Many visuals on or in a building carry some meaning - cultural, historical, or economic - relics that tell us about the people who lived in the houses, their reality and how they faced specific situations. This connects to,

**G. Aspects of change** in the built form, in a specific house, or in house design policy. These are usually true indicatives of social, cultural and technological permutations which affected a single family or the whole settlement or the entire population. What follows is identifying and understanding the dynamics of change in these contexts.

The above is the proposed matrix for observing Templer architecture; usually, since each colony would be explored separately, this format would be adhered to as closely as possible; some criteria, however, are predominant in a certain colony, not in another. In such cases, certain criteria would not be dealt with, depending on location, and frequency of appearance.
Architectural Style: a Tool for Understanding Particular Architecture

Style: Some Current Definitions

The question of style arises meaningfully when the specific phenomenon of Templer Architecture is observed. Anyone walking through a former German Colony in Israel immediately feels its ‘special-ness’ in terms of ‘sense of place’, the *genius loci*, that which makes it unique unlike any other place in the country.\(^{42}\) The uniqueness of the location immediately stands-out.

What is actually an architectural style? The American Heritage Dictionary describes the term ‘Style’ as:

“1. The way in which something is said or done. 2. The combination of distinctive features of literary or artistic expressions characterizing a particular person, school, etc. 3. Sort; kind; type; *a style of furniture*. 4. Individually expressed in one’s actions and tastes. 5. An elegant mode of existence; *live in style*. 6. The fashion of the moment. 7. A customary manner of presenting printed material, including usage, punctuation, spelling, typography and arrangement. 8. The slender stalk of a flower pistil. –v. styled, styling. 1. To call or name; designate. 2. To design: style hair. [\(< L*stilus*, writing instrument, style.\)]\(^{43}\)"

\(^{42}\) Compare to Ben-Artzi (1996) p. 194: “[…] all these create in the mind of the passer-by or the resident a sense of another place, different from its surroundings”.

In the same dictionary, the term “Stylize” is expressed as “To subordinate verisimilitude to principles of design in the representation of”.\(^{44}\) Popperliers, Schwartz, and Chambers examined the definition for “Style” provided by the Oxford English Dictionary: “A definite type of architecture, distinguished by special characteristics of structure and ornament”. They raised one problematic aspect, regarding this perspective: Style conceived in these terms is essentially visual and has little relationship to the function of a building; therefore, churches, courthouses and residences might be of the same architectural style.\(^{45}\) In many cases, the term Style is used to describe historical and political periods, and has little to tell regarding the appearance, the ‘look’ of a building. Thus buildings of the same period may look totally different.

Norwegian architect Norberg-Schultz, produced a far more inclusive definition for architectural style, one that is best for the purposes of this study: a cultural object on a higher level than a single work. While an individual work has one determined physical manifestation, concretizing a particular situation, the style concretizes a collection of such situations; in principle, it may concretize a culture in its totality.\(^{46}\) Style has, therefore, a stabilizing purpose in society, uniting the individual products and makes them appear as part of a meaningful whole. It preserves certain basic intentional poles and secures the cultural continuity.

\(^{44}\) Ibid.
Style: General discussion

The great majority of buildings in existence are not designed by architects. In fact, 95% of the building inventory are not architecturally-designed.\(^{47}\) So vernacular architecture, becomes the major reflective of its culture, in contrast to the ‘study of monuments’ and ‘the work of the designer’. It stands for, and is closely related to, the culture of the majority in a specific community, expressing life forms as they were really lived.\(^{48}\)

In vernacular buildings, we must distinguish between two principle types: folk houses and styled houses, folk houses being built without an attempt to be a part of current fashion, styled houses built with at least some attempt to being fashionable. These show a degree of influence, by way of shapes, materials, detail, and other aspects or features that make up architectural style.\(^{49}\)

Kroyanker (1983) relates to “[…] the various issues touching upon the form of the city and its character, the sense of place, the colors, the textures, and its architectural identity.”\(^{50}\) Kroyanker points to the following factors as comprising at least part of the totality of architectural style in the buildings he explores:

- Attribution to a specific time-segment.
- Attribution to nationality, origin, or ethnicity.


\(^{48}\) Rapoport (1969), p. 2. See also Palmer and Parsons (1998), p. 11.1, The distinction between ‘Polite’ and ‘Vernacular’ buildings, wherein ‘Polite’ architecture refers to structures designed by a professional, in accord with current fashion. ‘Vernacular’ buildings were usually designed by local craftsmen or even the user, guided by norms of a locality.

\(^{49}\) McAlester (1992), p. 5.

\(^{50}\) Kroyanker (1983), p. 11 (my translation).
- Attribution to scale: neighborhood, public building or residential building, each scale dictating its own characteristics.
- Attribution to general factors such as political, social, religious, economical and ethnographic which influence the methodology of planning and construction.
- Attribution to technologies used which create certain syntax.
- Attribution to inductions from other localities, and other times (periods).

Figure 2: Classification according to specific “movements” in architectural approach.

Source: McAlester (1992) p. 11. “Modern Styles” are sub-divided into categories, like the “Prairie” (1900-1920), the “Craftsman” (1905-1930), the “Modernistic” (1920-1940), and the “International” (1925-present). The link to time periods, or segments, makes the Style an expression of current fashion. More on this type of analysis in McAlester (1992), p. 10.
Figure 3: McAlester’s classification of ‘visuals’.

Source: McAlester (1992) p. 55. The methodology of “If you see... Try these first” is an attempt to link an architectural detail to a specific “Style Period”. The labeling of buildings this way relies heavily on the visual attributes, and therefore Style becomes a vocabulary of visuals, without saying much about cultural background or reasons why a particular visual was employed. More on architectural detail with respect to Style in McAlester (1992), pp. 48-53.

Style is also a classification by visual elements, building details, construction typology and other attributes, typical of a certain period, and linked to a certain time reference. They have cataloged the attributes systematically, such as visuals, as seen in figure 3 above.

**Pointers of Style as used in this study**

Style as a term for the purposes of this study becomes, therefore, an item difficult to define. Derived from the above and relying on personal experience, the following are components, which, mostly, provide the broadest kind of definition for the term ‘Architectural Style’, not necessarily inclusive:

- A coherent form-syntax, which is distinguishable, identifiable, and separable from other form-patterns or syntaxes.
- Containing elements showing some resemblance or visual similarity, which repeat themselves in different structures.
- Showing some resemblance or similarity in materials and their use.
- A recurring resemblance repeated in a number of buildings, not necessarily by the same designer or craftsman.
- Linked to a specific time period and geographic location.
- Expressive of certain spiritual, and/or social, and/or life-style values.
- Expressive of the technological capability of its creators, a repeated use of a certain technology or an engineering approach.
- A design syntax, which is typical of that style: relationships of volumes, masses, detailing, use of colors, use of layout arrangements.
- Association with a certain ethnicities or nationality, culture(s), typology of structures.

In the context of this study, the above criteria are applicable for observing Templer architecture in terms of style. The question of whether Templer style was unique, or exclusive, or independent, or linked to other styles, is dealt with in later sections of the study; it will be shown that what started as one style actually ended up as another; the changes undergone, and their dynamics, is far more meaningful issue for study than does the actual style itself. It is through the changes that one can derive meaningful conclusions regarding Templers’ culture, so style must be looked at along a length of time, as this study does, and interpreted contextually.
Description of the study

The structure of the study starts with a preface and introductory section, which describes the relevance of the study, its rationale, the issues it addresses, its methodology and its reasoning. This section also presents the purpose of the study, its academic character, sets the time and space frames, poses the research questions, and outlines its methodology. A discussion of architectural style is introduced as complementary to the approach to methodology, and as a tool for understanding historical architecture and the ways in which it should be read.

Chapter One is dedicated to a literature review, the state of research, outlining important sources and some of the associated problems. One particular portion elaborates on the significance of the graphic data. This chapter concludes with a short discussion of the contribution of the study to material already published on this subject.

Chapter Two is an outline of the historical background, delineating the main relevant events, reviewing the historical context in which the Temple Society evolved; surveying the relevant forces in Europe and Palestine at the time when the Temple Society operated there, the main ideas and figures within the Society, and the first attempts at settlement in Palestine to be made by non-Templer groups, followed by a brief outline of Templer settlement in Eretz-Israel. This chapter also touches upon technological developments of the same period, especially in those areas pertinent to building construction. Since this is not, as
such, a study of history, the historical aspects are dealt with sparingly, sufficient only to introduce contextual understanding.

Chapter Three is a cross-section descriptive of architectural landscape in Palestine prior to the Templer settlement, a ‘snapshot’ of what was there when the Templers landed; it is a background section intended to provide an understanding of the options that faced them, and what actually accomplished in the settlement phase.

Chapter Four is a study of the Templer settlements in the U.S., which have only been briefly documented till now. Focusing on the two settlements, Maresa, NY, and Tempelfeld, Kansas, it also includes historical background, and analysis of the settlements and some of their structures. The chapter attempts to reconstruct the histories, the personas involved, architectural character and the broader historical background leading to formation of these two settlements, and the political involvement of U.S. Templers in the evolving Palestine colonies.

Chapter Five, describing the Templer settlements in Palestine, it is divided into two subsections: the settlement venture, and the building technologies. The first subsection describes and analyzes the Templer Colonies and the houses, using the matrix discussed in the Introduction. In the technologies subsection, the various building technologies are presented and analyzed through specific structures. This chapter also discusses the ways in which Templer architecture changed in time.

Chapter Six discusses and describes the architectural characteristics of the built form introduced by the Templers in their colonies in Eretz-Israel. The
chapter also compares these with the U.S. colonies, introducing new findings, relevant to understanding the settlements, both in the U.S. and in Palestine. There is also discussion of influence of Templer architecture in Etetz-Israel, both immediate and long-range.

**Chapter Seven**, the Conclusions part of the study, is divided into two subsections: Summary Comments, and Conclusions. This chapter addresses the questions raised in the Introduction, and describes the contribution of Templer Architecture to the development of the general settlement landscape of the country. The main issues in the first section are: change, adaptability, individuality, originality, and sustainability. A closing statement deals with recommendations. And the chapter ends with a number of conclusions derived from data gathered and presented.
Chapter 1:

Literature Review

The State of research, identification of Bodies of Knowledge

*Publications about Templer Architecture*

Very little has been published about the *Architectural* aspects of Templers’ colonies. Most publications deal with Templers’ history, theology, historical geography, and settlement history. Ben-Artzi (1988), (1991), and (1996), concentrates on the Templers’ Colonies from the historical geography and settlement history perspectives; he is the only writer to deal with and publish on the architectural style of Templer settlement. He discusses architectural aspects of Templers’ structures and building technologies, with relation to the places of origin of the German Templers. His 1996 book is a pioneering attempt to determine the influences on this Architecture and settlement design, and the influences that it generated, and to pursue the changes and cultural forces shaping these. Cassutto (1979) also touches briefly on Templer Architecture, but in only two locations: Haifa and Jerusalem. Ben-Arieh (1979) dedicates considerable space in his extensive study to the Templer colony in Jerusalem, also from a settlement history perspective. Elhanani (1998) and Hashimshoni (1963) touch briefly on Templer architecture, as do other local architectural theorists. The first *architectural* writing that deals with Templer architecture was carried out by Kroyanker, in a number of publications: Kroyanker (1966a), (1966b), (1983), and Kroyanker (1996).
Kroyanker is the only local architect to have viewed the Jerusalem architecture as a mosaic of different styles and periods, and make the inevitable comparisons between different styles, German architecture, institutional and domestic, included. From the point of view of this study, Kroyanker’s many publications provide a far-ranging outlook at the 19th Century architecture in Jerusalem, covering Christian, Moslem and Jewish construction ventures. There are drawbacks to this generosity of scope: The radius is limited to Jerusalem, and, in the general context, Kroyanker ‘drifts’ into the historical aspects of the Templer settlement actually writing very little about their architecture. His historical treatment of the German Colony in Jerusalem is far from being comprehensive, and argument regarding its format as being as street-village is contradicted by Ben-Artzi (1996).\textsuperscript{51} There is also a lack of consistency in the way Kroyanker deals with different structures: in some cases, he deals with the actual structures, in others with the tenants. Nonetheless, this is the first time that a major architectural documentation effort has been published regarding Templers’ structures in Jerusalem.

The following are the basic divisions of interest in terms of the literature review for this study:

- History of the Temple Society, In German, Russian, and U.S. contexts.
- Physical aspects of the colonies, physical and graphic data: aerial photography, maps, photographs, and textual data.

\textsuperscript{51} Ben-Artzi (1996), p. 16.
General background: building technologies, comparative data, methodological, biographies, memoirs, and reports.

Ben-Artzi (1996; 1988) typify the main sources usually used in Historical Geography research: Primary sources, population data, cartographic sources, and photographs, paintings and drawings, travelers’ writings, memoirs; secondary sources, including early research, prose, newspapers clips, and so on. All these types of sources are present in this study. From the architectural point of view, this study concentrates mainly on existing relics - the domestic still-standing houses in the Templer Colonies -, which provide a peerless first-hand primary source for recording and analysis.

Historical: The most notable contemporary historical works covering Templer settlement in Palestine are Carmel (1970; 1973; 1977; 1990), and Sauer (1988; 1991). Both Carmel and Sauer are considered the best (even by the Templers themselves) references from the history point of view, Carmel covers the history of the Temple society, mainly in Palestine, Sauer produces a broader canvas. Carmel is the first Israeli scholar to introduce the subject, from the political history standpoint, in his much-praised 1970 PhD dissertation. Ben-Artzi (1988b; 1996) writes about the Templers’ settlements and the Jewish colonies from a historical geography and settlement history points of view, while Haim Goren (1987; 1988; 1989; 1992; 1997; 1998; 1999; 2002), explores the historical aspects of the German presence in Palestine and German

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52 Ben-Artzi (1996), p. 28; Ben-Artzi (1988b), pp. 3-4; see similar grouping in McDonald (1994), p. 2, where he also considers oral resources as a primary source.
contributions to the geographic study of Israel and the settlement movement. Ruth Kark, in a number of publications, considers the historical background of the Templer settlement ventures in the 19th Century, as well as the settlements’ history; of which one publication is particularly relevant to this study: Kark (1983), pp. 47-62.

In this work Kark links Millenarism as a major causative and common factor in all the colonizing movements in the Palestine of the 19th century, including the Jewish movements, and the Temple Society. Kark shows, in a convincing outline, that the same forces were acting in Europe the U.S. and Palestine, and the logical connection between these movements. The spread of these millenarist ideas was a major force in the realization of settlement of the Holy Land.

Christoph Hoffmann (*2.1.1815 Leonberg +8.12.1885 Jerusalem, see p. 56), the founder of the Temple Society, wrote its history: his book Occident and Orient written in 1875, has been translated into English, and provides a glimpse into the dynamics of the Temple Society events in Palestine. Hoffmann’s writing is not free of ‘politically correct-ness’ in terms of his time: all that he wrote regarding the deep conflict between himself and Hardegg (*2.4.1812 Eglosheim +10.11.1879 Haifa), his ‘right-hand’ and operations manager (see herein), was: “[...] there was also a difference of opinion between Hardegg and Hoffmann as to the further development of the work [...] Mr. Hardegg relinquished his position as leader of the Haifa Community in spring 1874, and resigned from the Temple
Society.”53 Not a word about the essence of the conflict. In another book by Hoffmann (1878), also translated into English, The Guide to Lasting Happiness, Hoffmann does not mention that conflict at all.

Friedrich Lange (*1840 Gnadenfeld +1923 Haifa), a prominent Templer figure of Mennonite descent (as his POB suggests) wrote an extensive history of the Temple Society (in German). The great-grandfather of Peter Lange, president of the Temple Society at the time of writing, (2003), an elder and teacher in the Tempelhof community, emigrating with his family to Haifa in 1874. He became the religious leader and teacher in the Haifa Templer Community. At Hoffmann’s request Lange wrote his Geschichte des Tempels, (Jerusalem, 1899), a comprehensive work of over 900 pages in which the origin and development of the Temple Society from 1845 to 1884 - when Hoffmann relinquished Templer leadership - are described. The book contains many reprints of articles from the ‘Sueddeutsche Warte’, the precursor of the 'Warte des Tempels' (hereinafter Warte), written by Christoph Hoffmann, Christoph Paulus, Georg Hardegg and others. (See discussion of the Warte as a source, and Carmel’s (1976) assessment of the same thing, p. 45 below 54)

A wealth of photographic and artistic data, relevant to this project, is to be found in Israeli and other archives. The Central Zionist Archive (hereinafter CZA), Israel Defense Forces (Hereinafter IDF) Archives, The United Fund Archives, Temple Society Archives in Stuttgart and Melbourne, and others.

Some graphic data such as hand-drawn images of Templer locations can be found in the works of Geikie (1891) and Bauernfeind (the latter published by Carmel 1999).\footnote{See discussion of the value of drawings as historical source in Chapter Two The Architectural Landscape of Eretz-Israel in the 1860s Section, herein.}

![Figure 4: Jerusalem, Jaffa Street, drawing by Harper, 1880s.](image1)

![Photo 2: Jerusalem, Jaffa Street, photo by Fiorillo, 1880s.](image2)

Sources: Geikie (1891), p. 431; Kyram (1989), p. 104. The similarity suggests that Harper, the painter whose drawings were selected by Geikie for his book, used photographs for his drawings, which classifies his drawings a realistic depiction of the scenes. Some of the books published at that time intentionally converted photographs into drawings because print technologies were not good enough to reproduce photos.

There also is a treasure trove of private family collections, the legacy of descendents of Templers in Germany and Australia. I myself was given access to family collections of the following Templer families: Stoll, Blaich, Haering and Laemmle (Australia), plus the Higgins photo collection in the U.K. Within Israel, there are also valuable private photo collections, such as Mr. Arieh Dressler, Mr. Yoel Amir, Mrs. Shulamit Wiedrich, and others who willingly made their collections available.

Some architectural data on the Jaffa Colony is to be found in Eyal Eisler’s (1993; 1997) works. These provide revealing observations on the development
of the Jaffa Colony, also connecting the buildings to the on-going history-writing as the Colony develops. The text is accompanied by maps of the Colony, at every stage of its growth, and by extensive archival findings. What would have made the picture complete would have been a series of contemporary photos, linking past to the present: i.e. fieldwork.

**Physical Aspects of the colonies:** aerial photography, maps, photographs, and textual data. The vast majority of material in this section it is un-interpreted; a considerable number of photographs, some taken by the Templiers themselves, usually found in archives, such as the Templiers archives in Stuttgart and Melbourne and even in the IDF archive. One on-line collection stands out in this respect: the National Photo Collection (see list of Internet Sources in the Bibliography Section), run by the Israeli Ministry of Finance, which has the obvious advantage of a search engine.

Other photographic data had to be produced and compiled: over a thousand photographs, most of them digital, taken in all the Templiers’ Colonies, were needed to support and enhance the text of this study, and also to expand descriptions beyond localities and textual limitations. (See expansion on the subject in ‘A Picture is Like a Thousand Words’ section herein).

All the writers dealing with the Templer settlements describe, in one way or another, settlement design, architects involved, and the houses themselves. Ben-Artzi (1996), (1991) and (1988) is one of the few historical geographers to compare the various forms of settlement and provide an analytical viewpoint
regarding settlement design, houses and possible influences. He is therefore heavily referenced in this study.

**General Background:** historical outlines, general data, building technologies, to be used as introductory components to specific discussions. When we discuss arches, for example, it is logical to reference an engineering article as to how the arch actually operates, and what types of arches exist. On the technical side of this section, Huntington (1967); Gordon (1981); Salvadori (1990), need to be mentioned

Works which deal with building technologies in vernacular architecture in Eretz-Israel and were often referenced in this study: Hirschfeld (1987); Pinkerfeld (1943); Aloyal (1944); Fuchs (1998) and (1987); Ragette (1974); Canaan (1933); Khoueiry (2002). A Hebrew periodical published in the 1930s, *Habinyan*, was a platform for Jewish architects to express their ideas, works, and design philosophy. The most active architects of those years (Sharon, Kauffmann, Tchlenov and others) wrote for this “Magazine of Architecture and Town-Planning” platform, thus allowing us a glimpse into evolving Jewish architecture of those years.

Among works, which though not dealing directly with Templer architecture, provide understanding of the methodology of presenting an aspect or similar venture, are Thalmann (1991) and Gordon (1988). Thalmann also addresses aspects of change in the Templer Colonies.

**On Methodological Approaches,** this study uses the structures and points of view as described by Ben-Arzi (1988; 1996), Goren (1992; 1999), Eisler (1993),
Thalmann (1991), Gordon (1988), and Rapoport (1969). Most of the above are historical geographers, while the work of Rapoport stems from cultural geography. Rapoport delineates in detail, the cultural forces and factors active in bringing about the built form; the importance of spiritual factors in this dynamics. The advantage of Rapoport’s work for this study is the broad spectrum of factors he considers, and their relative importance. Other significant articles in this area are the works of McDonald (1994), and Nelson (1988), suggest methods for observing the built form, especially historical structures.

Some Problems Associated with Sources

A. The writer and his/her qualifications. In the case of the Beisan Chapter, main writers were local kibbutz members, Ephraim Yair and Ephraim Nakhshoni who lacked formal academic training and were not recognized by the academic community. By the time I was working in the kibbutz archives, both writers were unfortunately no longer with us. One must therefore ask, how credible are their findings? The usual convention in PhD research is to consider only data which is refereed and accountable, which feeds on established sources and matches all the criteria for valid data. But, in many cases, this is the only available baseline data. The handwritten material by these two writers is supported by archival material from the CZA and KKL Archives, and correspondence with German settlers’ families who sent detailed information including pictures and first-hand accounts. There was no way this data could be ignored and therefore deemed appropriate to be (cautiously) incorporated.
B. Objectivity: Writing as an independent effort Versus as an initiated project. Compare these two books: Sauer (1991), translated from German in 1985, and Carmel (1990), based on his 1970 Ph.D. Thesis. In the introduction to the English version of Sauer (1991), one of the initiators of this Project, D. P. Ruff, president of the Temple Society at the time writes: “Seen through the eyes of an independent historian, it puts on record the endeavors and destinies of dedicated groups of Templers […]”.56 In the same book, Dr. R.O. Hoffmann, president of the Australian Temple Society, writes: “[…] we asked Dr. Paul Sauer, Deputy Director of the State Archives in Stuttgart, to write the history of the Temple Society in the 20th Century.”57 This was not the first time Sauer was commissioned for such project: in 1974/75 the Beilharz Family prompted Sauer to write the family’s history. The result: The Story of the Beilharz Family.58 Sauer himself writes in the preface to the 1991 book that he was genuinely interested in the history of the Temple Society, since he himself comes from the same region and has many Templer friends.59 These facts must be kept in mind regarding the Sauer writings. I have no doubt at all that the (English versions) of Sauer books are the most comprehensive data-supported history of the Temple Society, and the fact that Sauer, a reputable historian, was commissioned write them, only does justice to the end product; Carmel, on the other hand, is a more specific

historian who concentrates on political history, in works that are pure research projects. In conclusion: both Sauer and Carmel are the best available histories of the Temple Society, but it must be remembered that Sauer’s books were commissioned work, while Carmel’s work is ‘pure’ academic research.

C. The Warte as a historical source: The Warte, the Temple Society published organ, which is as old as the Temple Society itself, is an expression of what the Templers thought and debated amongst themselves concerning problems and matters they regarded as key issues. All historians and historical geographers such as Sauer, Carmel, Ben-Artzi, Goren, Thalmann, and others base a substantial portion of their findings on the Warte. As a source, it is probably the most comprehensive body of data in existence about the Temple Society. Carmel (1976),\textsuperscript{60} classifies the Warte as a most valuable source, determining that this is a highly reliable source pertaining to the German settlers in Eretz-Israel, and a potentially valuable source on life in Eretz-Israel in general: “It seems that there is no other matching source for the chronicles of Eretz-Israel (in particular in the last third of the 19th Century) that aired in such frequency and scope news from Eretz-Israel on a continuing basis without being subject to the harsh censorship of the Turkish Authorities.”\textsuperscript{61} The general quality of the Warte’s writers, their familiarity with events taking place in Palestine, and their command of Arabic (at least some of them), gives them clear advantage over other sources of the same period. However, it must not be forgotten, that we do

\textsuperscript{60} Carmel (1976), p. 157.  
\textsuperscript{61} Ibid.
not know how selective the editors were; what they omitted, to what political pressures they were subject when made editorial decisions. In addition, the fact that many studies rely so heavily on the *Warte* as a leading, if not only, source, may be detrimental: much *Warte* data is very hard to cross-reference. Scholars of the Temple Society history agree, in general, that figures and facts published in the *Warte* are reliable and present no problem, even when not supported by other sources.

**D. The Internet as a source.** The World Wide Web is, without question, the largest body of information that exists; it is also the fastest growing source of information. Here too, however, there are serious drawbacks: many of the Internet sites are commercial, non-informative, and not scientific. Anyone can post information on the Internet, without supervision or quality control. Most of the information is intended for the general audience, is usually not very detailed or supported by references. There are, however, great advantages to using reliable Internet sources; increasingly, more refereed electronic journals, text books, image databases and the like are available on-line from university libraries, research institutions and government agencies. These are normally created by outsourced vendors such as Gale, Ovid, Silver Platter and others. The existence of search engines makes this data highly accessible. No serious research project can afford to ignore the power of the Internet in this respect, and this dissertation in no exception.
Information experts in Tel Aviv University have developed ‘evaluation scale’ to assess the scientific value of Internet sources. The major items on this scale are:

1. The extension in the URL Address (domain) can provide some idea as to the source responsible for the site: an academic institution would normally have ‘edu’ or ‘ac’; a government agency would have a ‘gov’; a non-profit organization would have ‘org’; and a private or commercial body would have ‘co’, or ‘com’ in the URL.

2. Many sites have an ‘About Us’ section, from which it is possible to learn about the site and its relevancy.

3. The author himself/herself: is s/he a known figure in the field? Normally scientific publications would be refereed by experts in the field.

4. The target audience of the article: is it targeted for students? Professionals? The general public?

5. The presence or lack of it, of links to other related sites, which are also refereed, or published in other media.

6. There is also the question of objectivity: is the publication objective? Who or what is sponsoring the site? Does the site contain facts or just opinions? Does the article reflect an array of opinions or just the writers’? Is there evidence of bias in the material presented?

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62 Many thanks to Shevik Tal from ICTAF (Interdisciplinary Center of Technology and Forecasting), Tel Aviv University for providing the information.
7. There is also the question of update: is there a publication date, and is the site being updated as new data becomes relevant.63

A number of U.S. (and, increasingly, Israeli) libraries and other bodies of information boast on-line map collections and even entire books in digital format. Some of these appear in the bibliography list; the advantage of on-line digital textbooks is obvious: using a good search engine, one can, in a matter of seconds, access any single word or figure without missing anything. Some digital texts exist only in digital format, like Hoffmann’s (1975), Occident and Orient, translated into English for the benefit of Australian Templers by themselves and aired in the TSA website (see bibliography list, Internet Sources Section).

Another example of digital text referenced in this study is the Schenk, Trudy and Ruth Froelke (1998), Württemberg Emigration Index; an eight-volume database listing persons emigrating from Württemberg, which was filmed from the Ludwigsburg Archives, and later digitized and posted on the Internet, and published as a CD.

Other ‘frequently visited’ sites were: the Jewish Student online Research Center; the Australian Temple Society web site; the U.S. Library of Congress Geography and Map Division on-line map collection; the National Photo

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Collection, mentioned above; the Electronic Text Center, University of Virginia Library; the University of Texas Library on-line Map Collection which offers links to other collection, including the excellent map collection of the CIA; and many other websites referenced in the bibliography.

*Internet technology* was instrumental in gathering these photographs, since it allowed rapid and cheap means of communications with whoever had the photographs at their disposal. In the final analysis, digital images are only data files, transferable over the Internet in a matter of minutes without loss of quality, regardless of distance. In addition, the email technology allows even faster textual communications; much of the textual data gathered for this study was obtained through these channels.

**E. The reliability of human memory.** Information, produced *post-factum*, from memory, is always problematic, especially when compared to other data of the same kind. For example: The Wieland House was sketched from memory by Zons (1983, left below) and Yair (ca. 1985, right below).

The separate sketches show significant differences, as well as some common features. This forces researchers to cross the data with photographs and pass independent judgment based on experience. Another example is the plan, drawn from memory of her aunt by Dr. C. Laemmle,
of her family house in Sarona.\textsuperscript{64} In this case, it was easier to cross the data with photos and field spotting of the (existing) structure.

Lorch (1976) describes the problematic issue of memoirs as a historical source,\textsuperscript{65} on one hand the necessity to resort to human memory (and memoirs) in the absence of other data and, on the other, the care which must be taken when considering that kind of source: the motivation behind the given testimony, the circumstances in which the source operated, and the skill of whoever is retrieving the data. In the same article, Israeli historian Meir Pail supports the tactics of interview for retrieval of memoirs, and as a means of overcoming lack of data, claiming successes in “reaching the truth.”\textsuperscript{66}

\textbf{Short Versus Long formats in History Sources}

Since this study is not a history project, and historical data is chiefly used as background information, historical sources and information were kept at a minimum; I found that short formats provide much clearer pictures albeit in a lower resolution. Some of these sources - like publications of the ‘University on Air’ (broadcasted lectures) initiated by the Israel Ministry of Defense Publishing House and Tel Aviv University - to bring to the general public the best lecturers from the best universities. Following their success, the MOD has published these broadcasts.

\textsuperscript{64} See Appendix A, p. 550 herein.
\textsuperscript{65} Lorch (1976), pp. 70-71.
\textsuperscript{66} Ibid, pp. 81-82.
There is an advantage to short formats of data, because they provide a concentrated form of information which, when the data is used as a background material, is extremely helpful. The short format forces the writer to concentrate on the cardinal issues. These MOD lectures were ‘framed into’ given time-segments, in which a specific subject has to be delivered. This forces the lecturers to omit secondary information and produce a clear and concentrated picture of the subject. The disadvantage is that references are few and readers must pursue further references from the previous writings of these authors. Examples are: Ben-Arieh (1980b), Tumarkin (1988), and Gorny, (1987).

Gorny (1987) wrote about the development of the Jewish settlements within the historical context of mid-19th century Palestine, describing the situation in that country before the ‘First Aliya’ (Hebrew for ‘immigration’) and the modernization process in Palestine. The publication is divided into segments according to the different ‘Aliya’s’, which makes it easier to understand the different social aspects of “Constructive Zionism”. Tumarkin (1988) wrote about vernacular architecture and the construction culture in the Arab villages of Palestine. Ben-Arieh based his series on his 1979 volume A City Reflected in its Times, New Jerusalem – the Beginnings, a monumental piece of research which was also heavily referenced in this study.
A Picture is Like a Thousand Words

Since Architecture deals with spatial three-dimensional objects, it is almost impossible to write about or describe elements of architecture without drawings, schemes, maps, or photographs. When writing and documenting historical architecture, in many cases of buildings that no longer exist, only photos are sometimes available.

Paintings and drawings from the studied period are also an important historical source, as illustrated by Ben-Arieh (1992), who compiled representative items and analyzed their historical significance. Many of the painters had architectural training, or were engineers or surveyors, a quality that shows in the accuracy of the drawings. It was, in the final analysis, the photography which won the lead over painting and drawing; painters started to use optical equipment in order to increase the accuracy of their art, and with rapid development of photographic technology, and the inevitable link between photography and printing, most graphic documentation of Eretz-Israel in the last third of the 19th Century is photographic.67

The amount of graphics in this study speaks for itself, in the absence of virtually any other effective option. A vast amount of graphic data about the Templers and their architecture, in the hands of Templer descendents, in archives, books, and so on. Many Templers and their descendents are ‘history minded’, busily writing memoirs, collecting photos and willing to share their

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There are also private collections of photographs and other data in Israel of people deeply interested in the Templers and ready to share the information at their disposal.  

There is, however, almost no technical information on Templer buildings, namely plans and designs by the original architects. Almost no plans survived, the only technical archive saved is the Ruff Archive, on file at the Schumacher Institute in Haifa, and only recently cataloged. Some of its contents are presented here for the first time. The Weller photo collection, compiled by Horst Blaich from Australia is also linked to the Ruff archive, Weller being Ruff’s partner.

Some Problems Regarding Photography: As mentioned above in relation to the writing of independent as opposed to initiated historical writing, photography may also be viewed as ‘initiated’, ‘commissioned’, ‘on-behalf-of’ documentation, as is the case with some of the Jewish and Palestinian photography of the 1930s and 1940s. Some photographers and photography were mobilized for public relations, or for religious – missionary purposes, or to promote tourism and commerce, scientific photography being just another photographic activity. In this study, an attempt is made to cope with this problem by being aware of its existence, and trying to extract from the image(s) the architectural data while

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68 Family photo collections such as Thiel, Higgins, Albert Blaich Family Archive, Laemmle, Stoll, Weller, and others, for whom I am thankful.

69 Private collections of Aryeh Dressler, Ruth and Yehuda Danon, Uri Yinon, Benei-Atarot Preservation Committee (Niza Dekel), Shula Wiedrich, Yoel Amir and others. Amir (2003), pp. 30-32, attested to the considerable volume of data, especially architectural data, that can be attained through comparisons of postcards and later photos, showing the changes in structures.

remaining critical about the reasons and circumstances which brought them about. Normally in architectural photographic documentation, the problem is less critical, since a built structure appearing in a photo is an undisputable fact; it shows materials, design, technology, and other architectural attributes. The question of why the photo exists in the first place or the reason for publishing it becomes secondary.

**The Contribution of this Dissertation**

From the outline of literature presented above, there clearly stems a particular fact: that in the process of recording the Templers’ culture and history, a main consideration that was left out was their Architecture. It has been touched upon, by Ben-Artzi, Kroyanker, and others, but there was no inclusive architectural analysis that covers all the colonies and follows its development and change. Moreover: most of the writers were not architects, and looked at the phenomenon from Historical Geography perspective. This scholarly vacuum needed some attention, which this dissertation attempts to attend.

This dissertation will attempt to compile a considerable number of residential structures in all the German Colonies in Eretz-Israel, and to bring about an understanding of their built form through its technologies, historical and cultural contexts, and the meanings of change, as manifested in the architecture. It may become a trigger for further research, and may possibly open the door to new scholarly possibilities, such as the development of Historical Architecture discipline, as described in p. 21 above.
Chapter 2:

Temple Society in Palestine: Historical Background

**Contexts: Time and Place**

The Temple Society, known in Germany as the *Tempelgesellschaft*, was one of many similar German movements that evolved in the 18th century and on. All these movements had a major drive in common: finding locations outside of Germany where they could practice religious freedom, attaining political freedom, and to improve on their quality of life.\(^71\)

The reason for this exodus lay in the hardships of life and the social tensions prevailing in South Germany, and thus in Württemberg in the 18th and 19th Centuries. Poverty, shortage of farm land,\(^72\) and not less critical, the failure of the revolution of 1848,\(^73\) were among the causes which created a reactionary social and political environment.\(^74\) There was also a link between the Industrial Revolution and the events preceding 1848, i.e. the formation of a middle class, bringing in its wake antagonisms between bourgeoisie and proletariat, and the rising conflict between the remains of the ‘old order’ and the new middle class. The 1848 Revolution was, therefore, a social one, bringing to the surface the

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\(^{71}\) Andelson (1984); Liffring – Zum Bourret, (1998); Shambaugh (1998); See also the following web sites:


urban proletariat.\textsuperscript{75} There was discontent in Germany in the 1840s, and the general feeling that “[…] government administration had lost touch with the governed.”\textsuperscript{76}

\textbf{The religious element:} Adding to this unstable and charged situation were the ferments of new religious ideas. Influenced by Hegelian philosophy, characterized by a rational and historically critical view of the life of Jesus.\textsuperscript{77}

All these became the incubator for such movements as the Temple Society. Like most movements of its kind, the Temple Society needed a charismatic personality to generate its ideology and objectives, in response to the distress of its followers. \textbf{Enter Christoph Hoffmann}, born in Leonberg, December 1815. Raised in the Pietist community of Korntal, extensively influenced by “his father [who was…] devoted to Christianity of action in contrast to the official Church […]”,\textsuperscript{78} and received his high school education in Stuttgart. As a student at Tübingen University, Hoffmann was exposed to the public when, in 1845, he published a paper titled \textit{“Twenty One Theses Against the New Atheists in Tübingen”}, which he signed as “Ch. Hoffmann, a trustee of the Evangelical Church of Württemberg”. This was the high point of a long dispute between Hoffmann and the group that had already formed around him, and the ‘Tübingen School’ led by F. T. Vischer,\textsuperscript{79} a professor at the University, who was critical of

\textsuperscript{75} Pinson (1984), p. 80.
\textsuperscript{76} Sagarra (1980), p. 87.
\textsuperscript{78} Sauer (1991) p. 17. Sauer (1988) points out that Hoffmann’s father was actually the founder of Korntal (p. 72). Hoffmann himself relates to this matter in his (1875) in the ‘The Temple Society and Pietism’ chapter.
\textsuperscript{79} Carmel (1990): Friedrich Theodor Vischer, made in his Inaugural Address remarks which were considered by many in the region provocative and unforgivable (p. 5). See also: Sauer (1991) p. 17. Vischer, born 1807 in Ludwigsberg,
both the Old and New Testaments, and regarded by Hoffmann as an atheist and as a danger to Christianity, as Hoffmann, and most Pietists perceived it.  

**Pietism in 19th Century Germany**

Pietism was a late 17th and 18th century movement within (primarily German) Protestantism which sought to supplement the emphasis on institutions and dogma in orthodox Protestant circles by concentrating on the "practice of piety", rooted in *inner experience* and expressing itself in religious commitment. Pietism took on a distinctively Protestant form and was officially labeled "Pietism" during the ministry of Philipp Jacob Spener (*1635 +1705) in Frankfurt, Germany, although it was already manifest in earlier Protestant theologians such as Johann Arndt (*1555 +1621), a German mystical theologian whose *Four Books on True Christianity* (1606) was to contribute to the Pietistic movement later in the century.

The main ideas of Pietism as advocated by Spener, were: 1. More reliance on Scripture; 2. Exercise of spiritual priesthood; 3. Practice versus knowledge of Christianity; 4. Conduct of religious controversies; 5. Reform of schools and universities; 6. Preaching for purpose of Edification.  

Württemberg, was a writer and a Vicar in the State Lutheran Church. He received his doctorate from Tübingen University in 1832. He became a lecturer at the University later and a professor. He was suspended from 1844 to 1846 for his liberal views. (Encyclopedia Americana, p. 351).

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80 C. Schick, in his article 'Studien ueber Colonisierung des Heiligen Landes', in: Oesterreichischer Monatsschrift für den Orient 7, (1881), described the theological background for the evolution of the Temple Society. See also: Hoffmann (1875), Chap. 1.

The Pietists saw themselves as part of a second Reformation, completing moral reform in the church, following the theological reform of the 16th century. His enthusiasm for reform of the Lutheran Church, and insistence on the inner individual religious life, had a mainly beneficial influence on German Protestantism.

*The Connection to the Templers:* These ideas of the Pietists profoundly affected the young Hoffmann. His early years were spent in Korntal, where his convictions about proper Christian theology developed largely under the influence of his father, the founder of the Korntal Community.\(^8^2\) Hoffmann was also heavily influenced by Philipp Matthaus Hahn (*1729 +1790), a Pietist theologian, and married Hahn's granddaughter, Pauline Paulus (1841).\(^8^3\) Hoffmann was to remain faithful to Pietist principles all his life.

**Millenarianism**

Evangelical revival in Europe of the 19th century triggered a revival of Millenarianism,\(^8^4\) in various forms, encouraging certain groups which believed that the return of the Messiah was at hand, and must be witnessed in the Holy Land,\(^8^5\) to settle in Palestine.

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\(^8^2\) Hoffmann (1875), p. 12.
\(^8^4\) The Millenarist espoused either pre-Millenarianism – the belief that a thousand-year reign will follow the Second Coming of Christ - and post-Millenarianism, who believed that the thousand-year period would precede the Advent and that the way should be prepared for this event by the spread of righteousness over the earth. (The Oxford Dictionary of the Christian Church, pp. 1086-1087). There are several spellings to the term – Millenialism (American), Millenialism and Millenarianism (English), Millenarianism (Catholic). All refer to the Parousia – the second coming of Christ.
\(^8^5\) Parks (1949) p. 231; Eisler (1993) p. 2; and Kark, (1983) who studied the relationship between the Millenarianism and the agricultural settlement in Palestine in the 19th century.
Millenarianism was a major factor in the New Era contributing to the settlement movement of Palestine in the second half of the 19th century. The central aspect was the expectation of the Second Advent of Christ and the establishment of the Kingdom of God on earth. The Book of Daniel and the Revelation of St. John, 20, 1-16, mentions establishing the Kingdom of God on earth by Jesus; this would last a thousand years (the Millennium, and hence “Millenarism”). Kark (1983) traces Millenarianism to early Christian thought, however these ideas became much more widespread in the 16th century, mainly in certain circles of Protestantism. In Germany, there was a direct link between the Pietist Movement and Millenarianism: in the first half of the nineteenth century, the main proponents of millenarian ideas were Gottlieb Wilhelm Hoffmann from Württemberg and his son Christoph Hoffmann, the founder of the Templer sect.

Kark (1983) records a connection between Millenarianism and the various groups who attempted to settle the Holy Land. She points to the Templers, who emigrated from Germany, and the American immigrants like Warder Cresson, Clorinda S. Minor and George J. Adams.

**Significant Events on the German and international arenas**

Certain events and geopolitical developments in Europe were underway before, and at the time that, Templer movement came into being. 19th century Europe was changing fast, in almost every conceivable aspect.

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The French took over Algiers in 1838, marking the beginning of the second French Colonial Empire; in the years to follow France will expand its influence and control in Africa and East Asia. Russia adopted the same policy of expanding its influence in Middle Asia, reaching only a few hundred miles from India, competing with Great Britain, the major foreign power in Asia. The British, for their part, were also busy operating the East India Company as a mechanism of acquiring influence, territories and raw materials.

In France, as well as in Germany, the 1840s were marked by severe economic crises. Industrial and financial enterprises collapsed, and the rural communities suffered a series of droughts, all of which led to unemployment, rising costs, and reduction in wages. The social consequences were civil unrest, and changes in government. In Germany, that unrest brought about political changes, among them unification of the customs regions, first between Prussia and some of its neighbors, later of the vast majority of the German States. This was the first step toward the unification of Germany, that was not to materialize until 1870. But in 1848, as civil unrest erupted, 500 members of the parliaments of the German States convened in Frankfurt (Hoffmann representing Ludwigsburg), in an attempt to generate a German Union. The premature attempt failed for various reasons beyond the scope of this study.

The bloody Crimean War of 1853 brought to the surface the interests of the European Powers in the Holy Places, and the recognition that the declining

Ottoman Empire was reaching its end. The ‘Eastern Question’ now aired in Europe in its full severity.\(^{90}\) In fact the Crimean War reflected the ‘Eastern Question’, showing the conflict of interests between Russia and Turkey over control of the straits between the Black Sea and the Mediterranean. Fifty-four years before the Crimean War, Napoleon had invaded the Holy Land, proving that the Ottoman military forces could be defeated; thirty years later, the Holy Land was invaded by the Egyptians\(^{91}\), proving this same point. Now it was becoming increasingly feasible for Europeans to settle the Holy Land.\(^{92}\) As a result the Turks became somewhat more lenient towards Europeans in the Holy Land, recognizing their rights and allowing their respective consulates some authority.\(^{93}\)

**European Architectural Presence in Palestine in the 1850s and 1860s**

The first signs of European (and U.S.) attempts to settle in Palestine appeared in the village of Artas (1849) near Jerusalem and later (1851) near Jaffa in a spot which they named ‘Mount Hope’ by a German-American group; the ‘American Colony’ in Jaffa (1866) founded by the U.S. Adams Group; various ‘institutional’ ventures by Russians in Jerusalem (1860, the Russian Compound);

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\(^{89}\) The war (1853) between Russia and Turkey, triggered by dispute over the control of the Holy Places in Palestine, but was actually about control of Russian access to the Mediterranean. See also Ben-Arieh & Bartal (1990) p.37; Hoffmann (1878), p. 67.

\(^{90}\) The twin questions, “Will the Ottoman Empire cease to exist”; and “what will become of it?” formed a major issue for the European Powers. See Ben-Arieh & Bartal (1990) p.13.

\(^{91}\) Carmel (1977), pp. 77-86, describes in detail the ramifications of the Egyptian takeover.

\(^{92}\) Carmel (1990) p. 6, explains the consequences of the Egyptian takeover: establishing a non-corrupt administration, granting civil right to non-Moslems, allowing foreign delegations to expand their consulates and representation, and also permitting missionary activity. The Porte was committed to the European Powers, because of their support and assistance in driving the Egyptians out of Palestine.

The (German) Schneller Project in Jerusalem (1860 and later). Up to the mid-
1850s, only one Jewish settlement project emerged, Mishkenot Sha’ananim,
which was planned to be a neighborhood outside the Old City walls.

Following the Crimean War, considerable numbers of pilgrims also started
making their way to Palestine. The Porte allowed steamer services for that
purpose. By the 1840s, foreign postal services begun to operate in Palestine,
mainly in Jaffa and Jerusalem. Pilgrims “began to come by the thousands.”
Many of them Russian. The Russian Government purchased land near the Old
City of Jerusalem, and in 1860 begun an ambitious construction project,
containing hostels, offices, hospitals and a cathedral. Other European Powers
were operating in Jerusalem even before the Russians, with smaller projects.
By 1869 the French had opened the Suez Canal, yet another focus of European
interest in the Ottoman Empire.

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95 The term “Porte” refers to “The Sublime Porte” – the chief offices of the Ottoman Government in Constantinople.
The term is used very much like the contemporary “The White House” as analogous to the Federal U.S.
Administration.
96 A first hand description of the development of naval transportation in the region, an article by C. Schick (1897), pp.
96-97. A recently published (1995) outline concerning the Austrian Lloyd and postal services in the Levant by the
described the development of the steamers service as an incentive for the increase in pilgrimage to Palestine.
97 Parks (1949), p. 231.
98 Ibid; See also Ben-Arieh (1979) pp. 105-109, 146, 190. The Russian Compound was one of the first European
‘expressions of presence’ in Palestine, preceded by the German ‘Syrian Orphanage’ in Jerusalem. Both were large-
scale projects.
99 Ben-Arieh (1979), p. 115. These were the Austrian Post Station in Jerusalem (1858), the Austrian Hospice (1857-
69), the Gobat Protestant School (1854), and the houses of the British Consul Finn (1850s). In other countries in the
East during the 19th Century there were focuses of interest for the Powers, like Teheran, Persia; see, for example,
Avidov (1959), p. 11.
Building technology background

The Industrial Revolution was a major development in the 19th century. It was actually a long process, which started in England in the middle of the 18th Century, and spread throughout Europe, bringing with it a profound change in the European economy, a shift of focus from agriculture to industrialization, and in aspects of trade, finance, urbanization and transportation. Many inventions in the U.S. and Europe changed completely the way people thought, produced, consumed, moved about and lived. The reinforced concrete technology which followed the Portland cement invention (1824); the first structure in reinforced concrete appeared in the U.S. in 1875 in the Ward house designed by Robert Mook, in Fort Chester, New York. In Europe, the first structures appeared already in 1850, in France and England, by a French builder, Coignet. Steel appeared as a building material (1850s, Kelly in the U.S. and Bessemer in England).

As in all other walks of life, the new technological advancements of the Industrial Revolution had a profound affect on mid-19th century architectural thought. By the time the Templers were settling in Palestine, there were in Europe, and later in the U.S., structures utilizing these achievements. In England, the ‘Crystal Palace’ (1851), designed by Paxton, was a herald of the new era, in terms of building materials, engineering concept, scale, and industrialized aesthetics. The Templer builders, architects and manufacturers,

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100 Schaeffler (1992), p. 12. Ward documented his project and the reasons behind the selection of concrete: his wife was terribly afraid of fires.
quickly adopted the use of new building materials, steel, concrete and glass, and
the general acceptance of industrial objects as legitimate architectural elements.
By the Time the Templers arrived in Palestine, other Europeans were already
there with their technology: (a few) European structures already exhibited
technologies such as roof clay tiles, dimensional lumber, accurate stone-cutting,
and the use of glass; there is evidence of the use of water pumps in Jerusalem,
and a wind-operated flour mill.102 In the late 1860s, the first paved road, from
Jaffa to Jerusalem;103 and imported architects were responsible for design of a
number of European structures, signaling a new dimension of professionalism.

**Hoffmann and His Message**

The 1848 revolution found Hoffmann in the All-German Parliament in
Frankfurt, a representative of his region (Ludwigsburg). By then, he was a
familiar figure in the theological and Pietist circles in Württemberg. The new
periodical, titled ‘Sueddeutsche Warte’ (‘The Watchtower of Southern
Germany’),104 which Hoffmann and his brothers-in-law, Philipp and Immanuel
Paulus published,105 was gaining popularity. His ideas were being heard, and
assimilated by the general public. It was time for Hoffmann to voice his theory.

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104 Hoffmann (1878), p. 66.
105 There were six Paulus brothers. Friedrich, Wilhelm, Philipp, Christopher, Immanuel, and Gottlieb. Wilhelm,
Philipp, Christopher, and Immanuel founded the ‘Christian and Scientific Educational Institution’ in Ludwigsburg
in 1837. Hoffmann married Puline Paulus, sister of the six brothers, and Hoffmann’s sister Paula married Wilhelm
Paulus. Christoph Paulus took over the presidency of the Temple Society on Hoffmann’s death. (Note by MH
personal communication, January 2002.)
According to Hoffmann, The current situation was reflective of the messages voiced by the prophets, and resembled the Biblical “Tower of Babylon” era. Hoffmann became convinced that the time was ripe to gather “God’s People” in order to avoid a new Babylon. Blaming the Church and its institutions, Hoffmann saw no remedy other than training of “God’s People” to fulfill the mission: saving the world from the destructive anti-Christian trend. In the *Templer Handbook*, Hoffmann asserts that the Crimean War has brought closer Palestine’s liberation from centuries of Ottoman domination. Who then, he asks, should inherit the Holy Land? His answer is unequivocal: only ‘the People of God’. And because the Jews, due to their dispersal throughout the world, did not want undertake this task, the Christians are called upon to do so.

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107 Lange, Peter (ed.) (no date). *Templer Handbuch* (The Templer Handbook), Gerlingen: Manisch and Queck, p. 153; In a book published in English in the USA, Hoffmann explained in detail his theory and outlook regarding the European situation and the mission of the Templer Group, see Hoffmann (1878), pp. 3-15, 70-73.
Church establishment was offended by Hoffmann’s preaching, and gap widened; Hoffman’s brothers-in-law relinquished their interests in the ‘Sueddeutsche Warte’. By 1852, Hoffmann was the sole operator of that journal, making it his platform for expression of his ideas. Carmel (1990) regarded this occurrence as the actual coming-into-existence of the Temple Society.\textsuperscript{108}

\textbf{Georg David Hardegg}

Hoffmann’s ideas would have probably remained only ideas, had Georg David Hardegg, a merchant and a “mystical revolutionary from Ludwigsburg”,\textsuperscript{109} not joined him. Hardegg, deeply impressed with Hoffmann’s writings, was to become the driving practical force in the implementation of Hoffmann’s credo.\textsuperscript{110}

Hardegg regarded the One Thousand Years Kingdom as the next revolution about to take place. His exciting life story was a saga of ups and downs: arrested in 1833 for subversive activities, along with many other Württemberg revolutionaries, he was detained for six years in the infamous Hohenasperg fortress, where he started to read the Old and the New Testaments. Released by 1840, he went to Switzerland where he became a merchant. By 1846 he was allowed to return to Württemberg; there he met Hoffmann. The two started an association which was to last until Hardegg parted company from Hoffmann in 1874.\textsuperscript{111}

\textsuperscript{108} Carmel (1990), p. 6.
\textsuperscript{109} Carmel (1990), p. 6.
Influenced by the ideas of Hoffmann, Hardegg decided to implement Hoffmann’s theory and became the person in charge of the operations, heading the spiritual, organizational and professional training activities of the Temple Society; by August 1868, he headed the pioneer group of Templers, who set out to settle in the Land of Israel. Hardegg died in Haifa on July 1879. Arensberg (1988) notes that in this town, far from his homeland and far from materialization of his objective, he finally found eternal rest. His political vision has partly materialized in contemporary Social-Democratic Germany, much later, and at a very costly price, but his religious vision remained but a curiosity.\footnote{Arensberg (1988), p. 80.}

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\textbf{Photo 3 and Photo 4: Hoffmann and Hardegg stones in Jerusalem and Haifa.}
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Photos: August 2000 and April 2003
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\textbf{The American Settlements in Palestine: A precursor}

At about the same time the Temple Society was forming in Germany, Clorinda S. Minor (*1806 +1855) and George Jones Adams (*1811 +1880) had gathered substantial groups around them to form farming settlements in
Palestine. They were inspired by millennial theories. Cresson, a farmer from Philadelphia, settled in Jerusalem, becoming active in the founding of the Artas settlement near Jerusalem in the early 1850s and later in Jaffa; Minor, a widow from Philadelphia, was one of the activists first in Artas near Bethlehem and later in ‘Mount Hope’ near Jaffa; she came to Palestine in 1851, after having visited the country in 1849. Adams (see below) was the leader of the group from Maine, who settled near Jaffa in 1866. These early settlement attempts may well have been instrumental in triggering modern Jewish advocacy of settlement in Palestine.

In 1858 a small ‘reconnaissance’ team of Templers arrived at Palestine. This Hoffmann, Hardegg and Bubeck expedition was overshadowed by the tragedy at ‘Mount Hope’, and its failure. There were three sub-groups comprising the Mount Hope group: the first, led by F.W. Grosssteinbeck, Pietists coming from Wuppertal in the Rheinland; the second, led by Peter Claasen (*1809 +1865) coming from West Prussia; and the third sub-group, led by Clorinda S. Minor, coming from the United States, and joined by the Dickson

116 Hoffmann (1878), p. 68.
117 Carmel (1990) p. 10, notes that the American Administration threatened a military intervention if the aggressors were not caught and hanged; Vilnay (1975) p. 166 actually discovered the graves of the persons who were murdered in ‘Mount Hope’ and relates the sad story of this little settlement. Vilnay concluding remark: “...The incident in Mount Hope annoyed the American Consuls in the East and the American Senate discussed this tragic affair [...] following this event, the remaining few left, on 1858, [and] Mount Hope became a deserted hill”; see also Eisler (1993) p. 3; Ben-Arie (1979) p. 100; Goren (1998), p. 215, a description by C. Schick; Kark (1985), pp. 63-65; Davis, (2000), p. 61 and pp. 137-138. Davis notes “[...] the Adams colony became a focus of lobbying of American diplomats in Palestine, Egypt and the Ottoman Empire capital during 1867-1868, and some of the survivors became a nuisance for the consuls in later years.” A full description of the Mount Hope events in Eisler (1997), pp. 61-64; Ilan (1982) pp. 77-79; Perry (1995), p. 25 describes in detail the attack on the settlement on the night of January 12, 1858.
family, also from the United States.\textsuperscript{118} There were other members of which there is no specific data, including the country of origin.\textsuperscript{119}

With a heavy heart the Templer team returned to Germany, to report to followers that the intended settlement had to be carefully planned and its implementation methodologically worked out.

Parks (1949) describes the premature American settlement attempt in Jaffa, in 1866: “They called themselves the ‘Church of the Messiah’ and brought prefabricated houses with them […] The following year the movement collapsed, and the survivors of the colony departed.”\textsuperscript{120}

\textbf{Photo 5: The memorial erected on Jaffa’s beach.}

Photos: August 2000. The memorial erected on Jaffa’s beach by the City of Tel Aviv, in honor of the Adams group. The inscription on the stone reads “In honor of 157 [sic] American Christian[s] lovers of Zion who arrived by sail on the [S.S.] ‘Nellie Chapin’ on September 22, 1866, bringing wooden houses from Jonesport, Maine, to establish the American colony in Yafo.”

\textsuperscript{118} More on ‘Mount Hope’ in Ben-Zvi, Yitzhak (1976), Artes, Shear-Yashuv, Jerusalem. pp. 519-524; Tolkovsky, Sh., (1926), Jaffa Chronicals, Tel Aviv. pp. 123-133.


\textsuperscript{120} Parks (1949), p. 231; Eisler (1993) p. 4, pp. 7-29; Twain (1869), pp. 613-614 describes an encounter with some of the survivors of Adams’ Colony who boarded Twain’s ship and whom he actually rescued; Kark (1985) pp. 70-74; Kark (1983), pp. 47-62.
The Church of the Messiah was founded by George Jones Adams in 1862. He was born in New Jersey, and influenced by the Mormons. He published a paper called "The Sword of Truth and the Harbinger of Peace". Adams proclaimed that his followers should go to the Holy Land to prepare it for the return of the Jews. According to the Bible, he said, the Jews were the ones chosen to make the Holy Land fertile and fruitful again. He and his group arrived in Jaffa on 11th August 1865 on board the S.S. ‘Nellie Chapin’.

There were 156 of them, men, women and children. They brought everything with them – wooden prefabricated houses, tools and implements, oil for heating and lighting, and medicine. One of the group - a Rolla Floyd (*1838 +1911) actually brought a ‘Maine Spring Wagon’ with him, so that he would be able to engage in the conveyance of pilgrims.

Photo 6: American settlers on the Jaffa beach, 1866.

At the end of 1866 they eventually secured a plot of land and were able to erect their wooden houses. These were a novelty in Palestine of 1866. A
laboratory analysis carried out by Lifschitz, Lev-Yadoon and Biger (1988), shows that the wooden components of the houses were made of timber, common in northeastern United States, in the same region where the Americans settlers came from. Two brothers, John A. Drisco and George A. Drisco built a three-storey stone house, the only stone house in the colony, as a hotel - "The United States - Le Grand Hotel" to cater for Pilgrims going to Jerusalem via Jaffa. Rolla Floyd had his carriage ready to take tourists to Jerusalem - the first in the land. The wooden houses were later adjusted and adapted for local conditions by the American settlers. Most of the settlers were farmers. However the yield was poor, the hotel was not ready for the 'pilgrim season', and the road to Jerusalem was too rough for Rolla's carriage.

Eventually the American Colony disintegrated. Disease, poor harvest, general disorganization, the Jackal and Hyde personality of Adams, caused many of the settlers to give up their experiment and go back to America. They appealed to the American Consul for help in returning home. The colony - Adams City - (which in local parlance was called 'Melikan' (a corruption of 'American') collapsed. The houses and property were bought up by Peter Martin Metzler, who led a pilgrim mission in Jaffa. It was from this same Metzler that the Templers acquired all the property and houses when they set up their colony in Jaffa.

122 Actually fired hollow clay blocks stucco’ed to look like stone masonry.
125 Eisler (1997).
Photo 7: Prefab wood elements in the Frank Guest House, Jaffa.

Photos: January 2002. The wood elements have survived the troubles of time. Detail of a decorated wooden doorframe in a prefabricated house from the days of the American colony, when the house was owned by Mark T. Wentworth. An idea of what it looked like in better times, in the image on the right, which is the entrance to the house next door, which is an identical detail, and much better maintained.

Templers Emigration to Palestine

The bitter lessons of Mount Hope, and the grim conclusions of the reconnaissance team of 1858, and later the failure of the American Colony of Jaffa, had convinced the Templers’ leadership that time should be spent in preparations for the “… taking over the Land of Israel.” The reaction of the Templers’ leadership was to launch a program and a policy of preparation, so that when implemented, the settlement move would succeed. Carmel (1990) listed a number of objectives, and steps taken, which the movement adopted:

- The organization of the movement in Germany, its expansion and stabilization. That included the creation of branches throughout Germany\textsuperscript{127} and especially in Württemberg.

- A withdrawal from the Church of Württemberg and the formulation of ‘The German Temple’ as an independent religious entity.\textsuperscript{128}

- A reform of the social platform.

- Education of the young to become ‘God’s Temple’.

- Increasing of public awareness in Germany to the erection of this “Temple” in Jerusalem.

- “General takeover of Palestine”.\textsuperscript{129}

The number of persons associated with the movement at this time, namely in the early 1860s, is estimated at 3000.\textsuperscript{130} Small German communities associated with the Templers were already being created in the U.S. and Eastern Russia.\textsuperscript{131} A few abortive attempts, between 1860 to 1867, unsupported by the Temple Society leadership, to settle in the Jezreel Valley\textsuperscript{132} were also a trigger for Hoffmann to accelerate the intended journey to Palestine in order to

\textsuperscript{127} Actually the idea to “create branches throughout Germany” remained hypothetical. People, mainly from Hesse and Saxony, and also from Switzerland, joined the Templers, but there is no record of formal groups set up in these states. Members joined the community at Kirschenhardenhof. (Note by MH, personal communication, January 2002).

\textsuperscript{128} Hoffmann (1875), p. 6; actually in 1859 the Templers were expelled from the Church, so the 1861 withdrawal was not really voluntary. The setting up of the “German Temple” in June 1861 was a reaction to this expulsion. See Carmel (1990), p. 11 for expanded description of the affair; Carmel (1977), p. 113; also Sauer (1988), p. 75; Carmel (1988), p. 8.

\textsuperscript{129} Carmel (1990) p. 11. See also Hoffmann, (1875).

\textsuperscript{130} Ibid, Carmel cites the memo issued by the German Office of Domestic Affairs and the Office of Religion, dated June 6th, 1871, found in the Stuttgart archive, and the Warte, December 12th, 1894, pp. 90-92. Also: Hoffmann (1875), Chap. 1, The Origins of the Temple Society.

\textsuperscript{131} Lange (1899), pp. 306 ff.
try to assist the Jezreel Valley settlers;\textsuperscript{133} perhaps the concern of the leadership that Templers immigrating to other destinations would diminish the drive to reach Palestine, had also created an incentive and urgency to go ahead with the Holy Land settlement plan. The 1866 American colonization near Jaffa, had robbed the Templers’ of the primacy of settling Palestine. This also served as an accelerator for the Templers. They wanted to be among the first to settle. It was time for the Templers’ leadership to make a move.

On August 6th, 1868, Hoffmann and Hardegg embarked on their historic journey to Palestine. The Württemberg Emigration Index shows an application by Hoffmann a year before, with “destination: Turkey” indication.\textsuperscript{134} They were accompanied by their families, totaling thirteen persons. They reached Beirut on October 15th, where they were met by other Templers already waiting for them, some from Russia. On October 30th, their ship docked at the Port of Haifa. As Carmel (1990) put it, “The settlement of the Templers in the Land of Israel became a reality”.\textsuperscript{135}

The landing of that small group of German settlers at the Port of Haifa, Palestine, 1868, probably appeared as a minor event in the daily life of the small town. More than a hundred years later, historians and geographers began to

\textsuperscript{133} Goren (1987 above) p. 275.
\textsuperscript{134} Schenk and Froelke (1998), p. 68.
appreciate this event’s historic significance; it marked a change in the New Era history of Israel; for the Templers were agents of change.
**Templer Settlement Development in Eretz-Israel, General Outline**

Historically, the Templers’ settlement venture in Eretz-Israel was observed as consisting of three main periods: 1. The (initial) Settlement period, 2. The Consolidation period, and 3. The Expansion period. Inasmuch as settlement activity, the first and third periods constituted the two main Settlement waves. Carmel and others identified the time frames and characteristics of each period, described below.

*In the Settlement Period (1868-1875)*, four colonies were formed: Haifa (1868), Jaffa (1869), Sarona (1871), and Jerusalem (*Rephaim*) (1873). Each colony’s character was different: Haifa, being the first, started out as an agrarian community, but in later years changed into service and commerce community: the land around the settlement was not suited for agriculture, and crops were often stolen. Many settlers changed occupation into transportation, tourism, commerce, light industry, construction industry and craftsmen. By the end of the initial settlement period, the Haifa colony had 311 settlers, over 3000 dunams (760 acres) of land, and 85 structures. By 1875 the Haifa colony was still an agrarian community.

The Jaffa community was formed from the outset as a service community, being located next to a much larger and economically active town, and as a settlement which was already in existence (in contrast to the rest of the colonies which were started new from the first house), already containing a hotel, and a

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137 Carmel (1990), pp. 19-27.
number of businesses in the Old City.\footnote{Ben-Artzi (1996), p. 105, specified these as a flourmill, a hospital and a hotel.} The colony was actually what the (American) Adams group left behind. It’s economy was based on transportation and wagon making, and other occupations: tradesmen, commerce, flour milling, and hostelling. By the end of the period, the colony had 200 inhabitants.\footnote{Carmel (1990), pp. 27-31; Thalmann (1991), p. 50; Hoffmann (1875), p. 6 estimated 200.}

Sarona, was established in 1871 as a satellite community for Jaffa. Sarona started as a rural community, and so remained. In its early years, the settlers suffered from disease and lost 10% of its population. By 1875 it had 80 settlers and 460 dunams (113 acres).\footnote{Carmel (1990), pp. 31-33; Thalmann (1991), pp. 51, 53; Hoffmann (1875), p. 8.} By 1876, there were already 19 houses and 145 settlers.\footnote{Lange (1899), p. 665.}

Jerusalem (Rephaim) community started as a private move of an individual (Frank) in 1873. Other Templers joined later, and by 1875 the colony numbered seven buildings, along the main road, and about 100 settlers.\footnote{Carmel (1990), p. 33; Thalmann (1991), p. 64.} The recognition of the Templer leadership in the colony as such came \textit{post factum} years later (1878), with the ‘March to Jerusalem’ – the transfer of the Temple Society center to the Jerusalem colony.\footnote{Carmel (1990), pp. 33-35; Thalmann (1991), p. 64.} The occupational character of the colony was tradesmen and commerce.\footnote{Ben-Arieh (1979), pp. 181-182.}

The ‘first wave’ in the Templer’s settlement activity in Palestine was the most critical: creating a bridgehead in the Holy Land, establishing ground facts, gaining the experience of actually erecting the colonies, and operating

\footnotetext[138]{Ben-Artzi (1996), p. 105, specified these as a flourmill, a hospital and a hotel.}
\footnotetext[139]{Carmel (1990), pp. 27-31; Thalmann (1991), p. 50; Hoffmann (1875), p. 6 estimated 200.}
\footnotetext[140]{Carmel (1990), pp. 31-33; Thalmann (1991), pp. 51, 53; Hoffmann (1875), p. 8.}
\footnotetext[141]{Lange (1899), p. 665.}
\footnotetext[142]{Carmel (1990), p. 33; Thalmann (1991), p. 64.}
\footnotetext[143]{Carmel (1990), pp. 33-35; Thalmann (1991), p. 64.}
\footnotetext[144]{Ben-Arieh (1979), pp. 181-182.}
professional forces such as planners and builders. In actuality only two of the colonies, Haifa and Sarona were pre-designed, the other two were not. There was no repetitive pattern in the way the colonies evolved: Sarona came into being because of pressures of the Jaffa settlers for agricultural land,\textsuperscript{145} and Jerusalem evolved as an initiative of local individual Templers. Except for Haifa, there was no conscious methodological decision as to the location of settlement; these decisions were made in real time as events developed, and as land became available. This was a hurdle they had to cross: they paid a price for the lack of experience, but learned from their mistakes. It was a breakthrough and a turning point also for the settlement history of the country: they were the first Westerners to succeed to establish lasting settlements in the hostile environment. This was “[…] the first time since the Crusades that European Christians managed to drive home a lasting peg in the Holy Land, and to lay the foundations for a modern settlement in a region, forsaken for hundreds of years.”\textsuperscript{146}

Beyond the primacy of this daring move, there are other issues to consider: the difficulty to obtain political support; the tight screening process that they exercised in order to select the best possible settlers; the difficulties as a result of the split between Hoffmann and Hardegg; the hostile Ottoman administration and the hostile local populace; the lack of experience and unfamiliarity with local conditions, all these were detrimental to the Templers’ settlement move. In spite

\textsuperscript{145} Hoffmann (1875), p. 8.
\textsuperscript{146} Carmel (1990), p. 35.
of all these, they succeeded, for one single quality which overrode all the rest: faith.

In the Consolidation period (1875-1898), no new Templer Colonies were formed. Some main events were predominant in this period: the increase of Jewish immigration into Palestine; the evolvement of the second Templer generation, the split in the Temple Society; the death of Hoffmann (1885), and the visit of Emperor Wilhelm II to Palestine. The main technological advent was the opening of the railroad line between Jaffa and Jerusalem (1892). In this period the Templers managed to double their assets in the four colonies. These triggered social processes, and produced profound changes in the way the Templers perceived themselves in the Eretz-Israel arena, the relations between them and the other cultural groups, and their setup of priorities.

The split between Hoffmann and Hardegg, which resulted in the final dissent of a third of the Haifa Templers from the Temple Society, was the first sign of weakening the social and religious cohesiveness. A similar process occurred in Jaffa, in 1889, when Hardegg supporters joined the Evangelic Church. The visit of Wilhelm II marked also a profound change in the Temple Society: it signaled a change in Germany’s attitude toward the Templers’ enterprise, and evoked national feeling of identity in the Templer population in Eretz-Israel. The four colonies, established in a matter of only four years, now

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147 Avitsur (1988), p. 15, where Avitsur describes the history of the railroad system in Palestine.
149 Carmel (1990), p. 25; Eisler (1993), p. 64.
150 Eisler (1993), p. 64.
passed the critical phase and became an established fact. The colonies prospered,\textsuperscript{152} and experienced a momentum of development; not only the agricultural occupations, but also the craftsmen and commerce. By 1885 Haifa was the largest populated colony (450), but Sarona was the largest community in terms of land (4,640 dunams, or 1146 acres).\textsuperscript{153} Figures from the Temple Society were now in key positions, like the consuls appointed by the Ottomans; architects and engineers from the Temple Society occupied regional positions with the Ottoman administration.\textsuperscript{154}

The \textit{Expansion Period (1899-1914)} was the second and last wave of the Templer settlement. In this period three more settlements were formed, one of which was \textit{Waldheim} (1907),\textsuperscript{155} an Evangelical community, and the two Templer Colonies, \textit{Wilhelma} (1902), and \textit{Betlehem} (1906).\textsuperscript{156} Between 1897 and 1899 the Haifa settlers reclaimed the \textit{Tirah} lands south of Haifa, and established a farm consisting of four structures; they also established a presence on Mount Carmel with 16 structures, started in the late 1880s.

Only one of the veteran colonies made progress in this period: Haifa. The number of houses increased, and the businesses expanded as well; some of the

\textsuperscript{153} Thalmann (1991), p. 78 and p. 91.
\textsuperscript{155} Carmel (1990), p. 57, made the differentiation between Waldheim and the rest of the German Colonies, due to the religious orientation of the Waldheim settlers. Carmel included Waldheim in the league of the German Colonies because “its settlers were either former Templers or their offspring’s, but in this period there was no more significance to the religious differences, and in the first place, there were good relations between the two colonies, bordering each other.” [my translation, DG].
\textsuperscript{156} This spelling, in order to differentiate between historic \textit{Bethlehem} in Judea and the German Colony \textit{Bethlehem} in Jezreel. Sauer (1991) also uses these spellings.
settlers did so well as to be considered millionaires. 157 The rest of the veteran colonies actually ceased their development.

The second wave of Templers’ settlement in Palestine is characterized by increased influence of the second generation Templers, leading to decisions to form the new settlements; the tight control of the Temple Society leadership loosened; with Hoffmann gone (1885), and no other figure to match his leadership, 158 the ‘voices from the field’ became dominant, and the lower ranks of Templer populace were the ones who created the settlement map. This was also the time for moving away from the original Hoffmann theory; as discussed later it showed in the architecture of the new colonies.

The visit of Wilhelm II, and operation of the Jaffa-Jerusalem railroad line, brought with them new opportunities: official German support of the Temple Society enterprise, recognition in Germany, opening up of credit lines for the Temple Society, rapid development of the Jaffa and the Jerusalem communities which were next to the railroad line. 159 This ‘second wave’ concluded the settlement map; no new communities were further created. The settlement map now stabilized on two main strips: from Haifa to the east and from Jaffa to the east. The first strip contained Haifa and Neuhardthof – Waldhein and Betlehem, and the second strip contained Jaffa – Sarona – Wilhelma and Jerusalem. Out of the seven colonies, four were agrarian: Sarona, Wilhelma, Waldheim and Betlehem, and three were urban: Jaffa, Jerusalem and Haifa. (See settlement

158 Carmel (1990), p. 49.
159 Eisler (1993), p. 66.
map herein, p. 199). The houses that they built were single family, stone masonry construction, mostly two levels above ground, mostly low pitch clay tiles roofs.

Apart from the four colonies formed between 1868-1873, there were also minor communities, or farms, consisting of a single or a number of families, in various locations: in Nazareth, around Jaffa, in Ramleh, Gaza, Safed, Genin, Nablus, Ashdod and Beisan.160

**Between the two World Wars,** the German Colonies experienced another period of accelerated construction. This period is not counted in the three periods described above, since it had no affect on the settlement map. It was characterized by modern International Style161 construction and dealt with separately in p. 476, in *The Templers and the International Style* Section.

**The End of Templers’ Presence in Eretz-Israel, 1948**

On the night between 16th and 17th of April, 1948, Jewish military forces seized the settlements of Betlehem and Waldheim. This was a low point in a long, deteriorating relationship between the Jewish population and the Templers. These two colonies were taken over as part of a larger scale eruption of violence in the Jezreel Valley, between Jewish and Arab militias, and perhaps as a part of

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the plan of the Jewish leadership to gain control over territories which were
assigned to the Jewish State by the United Nations Resolution a few months
earlier. In the course of the operation, an elderly German couple was killed and
the inhabitants of Waldheim humiliated. At this point the British Authorities, still in
administrative charge of the Region, intervened, and evacuated the remaining
Templers abroad.162

This was the tragic end of Templers’ presence in Palestine, which lasted 80
years, started with an elated feeling of great hope and optimism and ended up
with a sense of frustration and an under-accomplishment – both from the spiritual
and settlement points of view. I asked a Templer friend, born and raised in
Sarona, how he felt about this. He described the antagonism he and his fellow
Templers felt towards the British and the Jews, fifty years later: “[…] by
everybody, whether they were from Sarona or the other colonies, I think you can
understand why. If you lost everything you worked for and saved, and it is all
gone; I from our family was the only one back in Sarona since then in 1999.”163

The considerable German property in Palestine, which was mainly the
Temple Society and members’ property, was actually nationalized by the State of
Israel, by passing the German National Assets Law in 1950.164 Prior to that act,
the British, before they left Palestine in May 1948, and who administered the
Property, were interested in liquidating the Property on account of resolutions

p. 119.
163 M. H., personal communication (email), dated March 26, 2002.
from 1945, that the German Property be a part of reparations for England on account of war damages.\textsuperscript{165} The Templer property owners were compensated for the property in a mediated compromise agreement from 1962,\textsuperscript{166} following a long negotiations period, as spelt out by the agreement between the State of Israel and West Germany signed on 1952.\textsuperscript{167}

\textsuperscript{165} Katz (2002), p. 144.
\textsuperscript{166} Kanaan (1968), p. 4.
Chapter 3:
Architectural Landscape in Palestine in the 1860s

Cross Section: What Was in Eretz-Israel Prior to the Templers’ Arrival

The significance of the following outline is in providing an understanding as to what was the built landscape and the building technologies used in Palestine at the time the Templers arrived; who were the active architects, and what were the forces which were instrumental in the shaping the built landscape of Palestine’s mid 19th Century architecture. The sources used in this section were selected as representing the time frame examined. The structures discussed in this chapter are only those which were in existence in the late 1860s, when the Templers started their settlement.

Geographical and political boundaries: It was only after World War I, that political boundaries were set for the region. The 'British Mandate' boundary lines included the land east of the Jordan River, but soon was subdivided into two entities: Eretz-Israel (Palestine, today Israel and territories of the Palestinian Authority) west of the Jordan River, and Trans-Jordan (today Jordan), east of the River. There was a remarkable resemblance between the Ottoman counties (Sanjaks) and the final boundary lines as delineated by the British Mandate.168

For the purpose of this study, we will consider another map, showing the area in question without reference to current political boundaries. At the time of

writing (2003), the final division between Israel and a future Palestinian State has not been determined; our focus will thus be similar to the map presented by Ben-Arieh (1987).

Map 1: Map of Eretz-Israel, Ben-Arieh (1987).


Source: Nur (2000), p. 2. North is up, scale: distance between Tel Aviv and Haifa 100 Km (62 miles). Zooming in on the map is the Northern part with Safed, Nazareth, Haifa, Tiberias and Acre. The Southern part zoom shows Gaza, Jerusalem, Jaffa (now joint municipality with Tel Aviv), Bethlehem, Hebron and Ramleh.
General Discussion: what did the Templers see, as far as man-made landscape: architecture, building technologies, urban development, and the like, in Palestine when they arrived in 1868? This is basic to understanding the building and construction culture which they have encountered in the Holy Land.∗

One problem associated with this issue is that photography was just beginning, at least as a technology, which can be employed in a mobile mode.169 Some of the descriptions, therefore, have to rely on texts and drawings.170

Palestine of the mid-19th century was not a pleasant place. It was a neglected province of the Ottoman Empire, with corrupt administration, hostile local population, aggressive climate, with no postal services, no decent port, poor economy, poor roads, no hotels, no physicians, a country which discouraged any sort of outsiders’ settlement.171

Mark Twain (1869) who was visiting Palestine in the summer of 1867, and witnessed first hand the tragedy of the American Colony in Jaffa, left us very sharp impressions about the country:

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∗ The issue was raised by Shmuel Groag, a consultant on this project and an experienced preservation architect, based in Jerusalem, to whom I am thankful.


170 Discussion of Paintings and drawings as historical source in Ben-Arieh (1992); Schiller (2002), pp. 56-65, discussed in detail the scientific value and character of painters in the 19th Century and before. I also posed the question to A. Carmel, who studied the German painter Bauernfeind. Carmel: “… we know that Bauernfeind, the orientalist painter, for example, was compulsively accurate. His drawings can, without question, be regarded as a historical source.” (Personal communication, January 2002);

171 Carmel (1990), p. 3.
Of all the lands there are for dismal scenery, I think Palestine must be the prince. The hills are barren, they are dull of color [...] The valleys are unsightly deserts [...] the eye rests upon no pleasant tint, no striking object, no soft picture [...] It is a hopeless, dreary, heart-broken land [...] Nazareth is forlorn; about that ford of Jordan where the hosts of Israel entered the Promised Land, with songs of rejoicing, one finds only a squalid camp of fantastic Bedouins of the desert; Jericho the accursed lies a moldering ruin, [...] Bethlehem and Bethany in their poverty and humiliation, have nothing about them to remind one that they once knew the high honor of the Saviour’s presence; [...] Renowned Jerusalem itself, the stateliest name in history, has lost all its ancient grandeur, and is become a pauper village [...].

Demographic Landscape in Eretz-Israel, 1860s: a Cross Section

Ben Arieh provided a clear cross section of the built regions of Palestine, by the beginning of the 19th century. His estimate of the total population then was 150,000 – 200,000. The geographical boundaries Ben-Arieh wrote about were the “Western Eretz-Israel”, (see the Ben-Arieh Map p. 86, above). Some regions were almost entirely unpopulated, the coastal plane, the valleys and the south; and some were relatively densely populated, namely the mountainous regions: the Judean Hills, Samaria, and the Galilee. Ben-Arieh divided the urban settlements into four categories.

1. The first urban group was Jerusalem, Acre and Gaza. All three are estimated by Ben-Arieh to have between 8,000 – 10,000 inhabitants. Each town

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172 Twain (1869), pp. 606-607.
had its own significance: Jerusalem, as the most important historic and religious center, Acre as the most important administrative center and a seaport, and Gaza, being the connecting link to Egypt.

2. The second group of towns was regional centers, which included Safed, Hebron and Nablus. All three had a population of 5000 – 6000. All three had historic and religious significance.

3. The Third group included smaller towns, Tiberias, Ramleh and Jaffa, all estimated at 2000 – 3000 inhabitants. All three were of historic value. Ben-Arieh noted that Jaffa being in the third group is the “[…] most surprising of all […]” fact. Jaffa at the beginning of the 19th century was “[…] nothing but a small settlement, surrounded by walls.”

4. The fourth group of towns was Haifa, Nazareth and Bethlehem, all having a population of 1000 – 2000. Haifa was contained within a wall, and Nazareth and Bethlehem holy for the Christians.

The rest of Palestine’s population was in settlements containing less than 1000 inhabitants, little town or villages. The settlement-distribution map of Palestine was, as Ben-Arieh puts it, “[…] a country which is thin in population, parts of which are desolate, and empty. In short, a very backward country, and a fringe province of the Ottoman Empire […]” [my translation].

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175 Ibid.
The most intensive mid 19th century building activity was in and around Jerusalem, and mainly by institutions. In the first half of the 19th century, Jerusalem was almost entirely contained within the walls. Almost all the Christian construction was institutional: Christ Church (1840s), considered the first Protestant structure in the Ottoman Empire, The Austrian Postal Station (1858), The Austrian Hospice (1857), the British Consulate (1839), the English Hospital (1842), the English School (1840s), the German Deaconess Hospital complex (1859). The Jewish population in Jerusalem grew significantly by the second half of the 19th century, and by 1860 built the neighborhood of Batei-Machaseh, inside the old city, dozens of synagogues, Yeshivas, community welfare structures and schools.

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176 Rubin (1987) presented some of the Jerusalem maps which were drawn at the same period. The map by A.G. Wartenleben from 1870 (p. 146), the map of F. Catherwood from 1835 (p. 151), the map of C.W. Van de Velde and T. Tobler from 1858 (p. 153), among other maps, show very little built up areas outside the city walls. Most maps show single structures next to the walls, and villages like Silwaan further away from the walls.

177 Perry (2002), p. 71. Many consider Christ Church as the first New Era structure in Palestine. This was the first time stonemasons from Malta were engaged in the construction, who taught the locals the trade of accurate stonework. See Schick (1897), p. 113; Kroyanker (1996), p. 16; Miron (1996), p. 171; Shavit (1998), p. 212.

178 See also Michlin (1999). Michlin describes in detail the evolution of these services in Jerusalem and other main communities in Palestine; Gorni (1987), p. 19.
Sources: Kroyanker (1966a), p. 30; Vermann (2000), p. 55. The main building in the square is the “Rothschild Building”, considered by Kroyanker to be “the most splendid structure built during the 19th century by organized Jewish construction”. Christ Church was the first Christian structure in the Modern Era, designed and built by Westerners.

But from the standpoint of this study the more significant built objects in Jerusalem were outside of the City walls. When the Templer reconnaissance trio arrived on 1858, there were already modern architectural expressions. A study of the Wilson Map drawn by 1864,\(^{179}\) reveals only three built objects: *Mishkenot Sha'ananim* (1860-1867), also called the *Yehuda Tura Houses*,\(^{180}\) with its windmill, the Russian Compound (1858 and later), and the Monastery of the Cross.\(^{181}\) Kark (1984) added to the list the Schneller Orphanage (1860s).\(^{182}\) Ben-Arieh (1979) completed the list with the Gobat School in the *Hinnom* Valley (early 1850s), a structure in the *Nevi‘im* Street (Later to become the English Hospital), the St. George Greek monastery (marked as ‘silk factory’ in the Schick Map.\(^{183}\))

There was also a long string of structures next to the wall from the outside,

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\(^{179}\) Wilson & Warren (1865), (in portfolio).
\(^{180}\) In the Wilson Map 1864/5 called ‘Montefiore Cottages’; also in Jeikie (1891) p. 412.
\(^{181}\) Eylon (no date). *Jerusalem: Architecture in the Late Ottoman Period*.
\(^{183}\) Schick (1894), near p. 239.
documented by Geikie, Fiorillo, and Schick, which housed the customs house and the British consulate.¹⁸⁴

Map 3: British Mapping of the Russian Compound, 1864.

Left:
Photo 10: Inside the Schneller Compound, 1970s.
Source: photo by Amos Ben-Gershom, National Photo Collection.

Right:
Photo 11: Jerusalem, Jaffa Street, 1880s.

The momentum of construction in Jerusalem by the end of the 1860s was reflective of the changes and developments which took place in those years on a

larger scale: the 1869 opening of the Suez canal, the first paved road in the country (between Jaffa and Jerusalem), the Ottoman reforms, granting rights to non-Ottoman subjects, and finally the first signs of construction outside the city walls of Jerusalem.¹⁸⁵ In the 1870s, that momentum was slowed down and almost came to a halt. There is a linkage between the decline in construction in the 1870s in the neighborhoods and the evolvement of the Jewish colonies. By 1878, some of the families who founded those Jerusalem neighborhoods initiated the first Jewish colony: Petach-Tikvah.¹⁸⁶

The European Construction

The 1850s was the time of breaking out of the Walls of the Old City. The British Consul, Finn, built a summerhouse in Talbiyeh,¹⁸⁷ and a residence in Kerem-Avraham, in 1855.¹⁸⁸ Gobat, the Protestant Bishop, started at the same time construction of the Protestant school on Mount Zion in the early 1840s.¹⁸⁹ These were the first structures outside the walls, to be followed by many others.

In the 1860s, the ‘Deaconesses Sisters’ built Talitha Cumi, designed by C. Schick as a modern school for girls.¹⁹⁰

¹⁸⁸ Ben-Arieh (1979), p. 95.
Photo 12: Finn’s House in Kerem Avraham, 1855.

Photo: July 2000. The plan resembles an oriental Liwan house, having a central hall and room on either side of it.

Figure 6: Gobat Protestant School on Mount Zion.

Source: Ben-Arieh (1979), p. 94.

Photo 13: Talitha Cumi School for Girls, Jerusalem.

Designed by C. Schick. Sources: (left) Landau (1979), p. 49; (right) photo May 2001. The structure was completed in 1868, and was the first of Schick’s designs.\(^{191}\) Right: the remains of the Building used as a memorial, now in the heart of Jerusalem. The building was removed in 1980 for modern development (in the background) and the City commissioned the architects Kroyanker, Paul and Meltzer to design the memorial, following a long public dispute.\(^{192}\)


\(^{192}\) Kroyanker (1966a), pp. 80-81.
The Russian building initiative in Jerusalem was competing with the Protestant initiative. Following the Crimean War, and with the ‘opening up’ of the Holy Places for Europeans, and the subsequent rising number of Russian pilgrims, the Russian government initiated the ‘Russian Compound’ Project, designed by Martin Ivanovich Eppinger, completed by 1864. This was intended for the influx of Russian pilgrims, which were visiting the Holy Places, Jerusalem being the high point of Pilgrimage. The Russian Compound contained the Russian consulate, a cathedral, “[…] an excellent hospital with a druggist store […]”, the Bishop’s palace, three hospices for pilgrims, and other residential units. A large project by any standard, especially in Jerusalem of the 1860s, and described by Ben-Arieh (1980) as “[…] perhaps the most impressive site built outside of the walls of Jerusalem. Various travelers visiting Jerusalem during the first years of the second half of the 19th century, frequently described it as a small town, containing important structures, surrounded by a wall with gates which were locked up for the night.” [my translation]. Oliphant (1887) described the Russian compound as a ‘piece of Russia’ in the Levant: “[…] a sort of a Russian suburb to the Holy City.”

194 The Russian Compound was not the only investment the Russian government made in Palestine. In the 1850s, the Russian built the pier at the port of Haifa, “… the first of its kind along the Syrian coastline…” in order to facilitate the increasing numbers of Russian pilgrims. Pierotti, the Italian engineer-architect was in charge of the project, which was accompanied by the building of the new hostel next to the Greek Orthodox Church. These projects caused “… great enthusiasm within the population…” Carmel (1977), pp. 94-95; Ben-Ariei, and Bartal (1990), p. 77.
195 Baedeker (1876), p. 126.
Guérin wrote in 1868 about the Russian Compound, a “political and religious fort combined”, and also mentioned “private houses and consuls houses”, as in indicative of the expansion of Jerusalem beyond the walls.\(^{198}\)

**The American Colony**

By 1881 a group of Americans, later joined by Swedes, established the American-Swedish Colony in *Sheikh Garach*, north of the Old City. This was the third American settlement attempt.\(^{199}\) The two previous American settlements failed: the ‘Mount Hope’ settlement near Jaffa (1858) and the Adams Colony in Jaffa (1866-68).\(^{200}\) The Colony’s first structure preceded the Templiers; it was the house bought from the affluent *El-Husseini* Palestinian family, and built between 1865-1876. Eylon described the house as “[…] built in the European neo-classical style, with many Middle-Eastern embellishments, the building is insulated with one-meter-thick walls, [1 meter = 3'-3"] and boasts a gilded dome, marble floors, and decorated wooden ceiling.”\(^{201}\)

The Swedish group joined the American founders of the colony by 1896, mainly Swedes from Chicago, who identified with the communal life-style of the American colonists in Jerusalem. This expansion of the colony, made the leaders of the colony buy the house of Rabach-Effendi, a wealthy Arab dignitary.\(^{202}\)

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\(^{201}\) Ben-Arieh, ibid.

\(^{202}\) Ben-Arieh (1979), pp. 372-373.
The house was one of the first Moslem structures outside the Walls, built in the 1860s, an exceptionally splendid structure, outstanding for its modern design, and the vaults and arches of its rooms and corridors. The floors were tiled with marble, and the openings decorated with carved stone frames, in the style of affluent Turkish construction.203

Arab Construction

One of the “private houses” of the type probably referred to by Guérin (see p. 97 above) could be the house now known as the “Ticho House”, built than by the affluent Palestinian Aga Rachid Nashashibi in 1864 and later bought by Ticho.


Photo: May 2000. The Ticho House, built as the family house of the wealthy Arab Nashashibi family, and bought by Dr. Ticho and his wife Anna in the 1920s.

Figure 8: Ground floor plan, Ticho House, Jerusalem.

Source: Kroyanker (1966a), p. 90, 91. The house - stone masonry construction - built in the Liwan scheme, a central space with two identical sets of rooms on both sides (the darkened portion of the plan). Now functions as a museum and cultural center.

The house is an example of urban Arab residential architecture: a central hall, with rooms leading off it, massive stone walls, and a domed roof, created by cross-vaulting. Next to the house, a well-developed garden, fenced by a stone wall. Conrad Schick describes how the Arabs followed the European layout of the rooms: as common then in German houses, an entrance opening onto a central hall, with stairs leading to an upper level, and doors opening onto rooms on the sides of the hall. The Ticho house construction technology is typical of many urban Arab houses being constructed in the rapidly expanding towns of the second half of the 19th Century. Below, the ‘Palestine Office’ building in Jaffa.

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204 See the discussion of types in Haifa below in this chapter.
The recent demolition of this building provides us with a rare opportunity to look into the makeup of the structure - common also in Jerusalem - with the wall on the ground floor exceeding one meter (3.3 ft.) in thickness, a ground floor ceiling created by cross-vaults, and at some points also exceeding one meter thick. This is the same technology used for the Ticho house, and in the plan by Kroyanker (p. 99 above) it is possible to notice the thick walls supporting the first floor vaults.

The Jewish built-up landscape in Jerusalem

The Jewish built up landscape in Jerusalem needs to be regarded as a beginning of an effort to build residences outside the city walls, detached from the Old City, but close enough to benefit from the proximity. The neighborhood of “Mishkenot Sha’ananim”, built in 1860, financed by Sir Moses Montefiore, designed by British architect, William A. Smith, (from Ramsgate, England,
Montefiore’s hometown.\textsuperscript{207} This was the first Jewish attempt to create a new neighborhood outside the Old City, and was already on site when the Templers arrived.\textsuperscript{208} Typical characteristics of the projects were: Row houses, to reduce construction costs, by simplifying the plan with a common wall for every two adjacent units; providing easier defense by massing the units; creating one large body or mass for enhancement of architectural ‘presence’; elimination of small voids between the houses for better maintenance and probably better hygiene; creating a sense of a ‘city wall’ with crenellation,\textsuperscript{209} and the continuous structure. Ben-Arieh (1980) writes that the introduction of \textit{Mishkenot Sha’ananim} was a “[…] major innovation with the starting of the urban housing venture.”\textsuperscript{210} Up to that point, all the Jewish housing was rented from Arabs, there was no Jewish construction. Meir-Merril (1998) cites Conrad Schick’s description of \textit{Mishkenot Sha’ananim}, stating that the appearance of the houses was “[…] Row-houses, resembling barracks […]” which, according to Schick, provided “[…] a form of a very cheap construction method, responding to social and security requirements, having drawbacks, especially hygienic, which become more acute with time […]”\textsuperscript{211}


\textsuperscript{208} Elkayam (1990), p. 97. Elkayam relates how Montefiore visited Palestine by 1857 (?) bringing with him an architect for the purpose of planning the first 20 houses in \textit{Mishkenot Sha’ananim}.

\textsuperscript{209} Also called ‘Battlements’ {Fleming, Honour & Pevsner (1967), p. 25, 36.}

\textsuperscript{210} Ben-Arieh (1980a), p. 537.

Figure 9: Mishkenot Sha'ananim, Jerusalem, 1880s.

*Mishkenot*, drawing by Harper in Geikie (1891), p. 412. View from Southeast. The first large-scale housing project outside the city walls, 1857-60. The Drawing illustrates the isolation of the Jewish neighborhood.


Photos: March 2001. Designed by Smith. Oriental elements such as the Zoonar, pointed arches, the toothed parapet echo the Old City walls, roughly cut stones. The metal colonnade in front was a later addition; similar details can be seen in the Spohn Farm (1890s) near Ramleh.
**Jaffa: Cross Section Retrospect**

Jaffa and its built landscape was described by The Universal Gazetteer, a geographical dictionary, published in 1823: “[Jaffa] is now inhabited by Turks and Arabs, with a mixture of Greeks, Maronites and Armenians. The general appearance of the place is now very desolate. Its harbour is one of the worst in the Mediterranean. It is a resort of pilgrims to the Holy Land, being situated directly in the way to Jerusalem.”\(^{212}\)

Similar descriptions were presented by McCulluth (1851), who described the quarantine house, recently founded,\(^ {213}\) and Victor Guérin, in 1863.\(^ {214}\)

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\(^{212}\) Morse, J. & Richard C. Morse (1823), p. 352.

\(^{213}\) McCulloch, (1851), p. 67; Also called “the quarantine station” by Mary Rogers (1989), p. 4; Kark (1985) pp. 18, 45. Kark dates the quarantine station to 1835, built by the Armenians and the Greek Orthodox, and notes that the secondary use building materials were shipped in from Caesarea and Tyre; Yinnon (2001), pp. 78-79 documented two quarantine houses, built between 1834-36.

\(^{214}\) Guérin (1982), pp 5-17.
In the 1880s a Jewish doctor, Haim Hissin visited Jaffa, leaving us a remarkable account not only regarding the town in general, but also the buildings and people.

Photo 20: Jaffa, Goldsmiths’ Alley, 2002.

Photo: April 2002. The dominant building material is soft limestone, called kurkar. The lower level is a series of vaults, sometimes cross-vaults, serving as stores or workshops. The upper level has hardly any openings, only small ones, and is also soft limestone construction though plastered. Another typical Arab feature is the parapet made of hollow tubular clay elements, used for its lightweight and ability to let the breeze through. These clay elements were also used as a filling material in some of the American colony houses in Jaffa.

[...] The ground floor of most of the houses has stores; and if, here and there, there is an apartment [on ground level], it has no window opening to the street, but an exposed wall\textsuperscript{215} having a wicket locked tightly, and almost unseen. The windows of the upper floors are sheltered with shutters; life of the dwellers inside is strictly hidden from outsiders’ eyes.\textsuperscript{216} Nowhere can your line of sight penetrate inside; you will not see what is inside the rooms, the furniture; you can not distinguish courts, nor gardens, nor anything

\textsuperscript{215}I interpret this as a wall without openings and/or unplastered.

\textsuperscript{216}See Eylon, (No Date). Eylon explains that “[…] certain dictates of Muslim law determine some features: windows were placed so that occupants (especially women) could not be seen by neighbors, and a wall common to two buildings was the property of the owner of the house that stood on the higher ground”.

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which would allow you to become familiar with life of the homeowners. Only bare walls downstairs and closed netted shutters upstairs. [My translation].

Most of Jaffa’s houses were built of stone, or soft limestone [kurkar as termed by locals], plastered with white plaster, and roofed with flat and domed stone roofs. Wood was rarely used as a construction material, except for doors and a number of items inside the houses. Because limestone was not readily available, it was brought in for secondary use by boat from Caesarea, Atlit, Sidna-Ali and Ashkalon, or taken from tombstones. Abu-Nabbut, the city governor (1807-1822), who rehabilitated the town after the damages of the Napoleonic raid (1799), built the Mahamoudiyeh Mosque, a number of public structures including the Customs House in the port, a market area in the west part of the town, and two more sabeels.

Among the first houses to be built outside Jaffa City walls was Khan Abutbul (1860s), a sizeable structure built by the prominent Jewish Abutbul family.

**Haifa: Cross section Retrospect**

When the Templers arrived in Haifa in 1868, the town was a minor spot in the Ottoman Province, a small town, but one of the few places in the country.

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219 Ben-Arieh (1982), p. 106, The Arabic term for ‘drinking-trough’, usually with a fountain. The Turks considered the sabeels as a public amenity, and its construction was a token of the authorities’ care for the population. Some sabeels are considered outstanding in their workmanship and artistry, with exceptional stone carving art. See also Avisur (1976b), pp. 102-103.
which could be considered a town at all in the eyes of European observers: active and constantly developing.\footnote{Carmel, A. (1977), pp. 98-99.}

![Figure 12: Haifa, first half of 19th Century.](image)

Source: Oliphant, (1976) p. 14, detail from a drawing. The Carmel ridge reaches the water line, creating the south end of the bay of Haifa. The Northern city wall is visible, as the Carmelites monastery and the Pasha’s resort. This was, in all probability, the first view the Templers had of the Holy Land as they arrived in Haifa by boat from Beirut.

Mary Rogers, the sister of the British vice-consul in Haifa,\footnote{Ben-Artzi and Schiller (1985), p. 70. Rogers’ brother was appointed British consul in Haifa in 1853.} came to Haifa in the 1850s, and recorded an account of the architectural landscape in Haifa:

We looked down on the town; thousands of birds […] were on the house-tops (the flat roofs of which are composed of massive beams of wood, crossed by planks, poles, and brushwood, overspread with earth and small stones, rolled firm and smooth) […] the newly disturbed earth, rich in bulbs and grass, and wildflower seeds, had naturally attracted the birds […] Out of lately-made roofs of earth, fresh green grass had sprung, so that every

\footnote{Rogers (1989), p. 85, showed a population of about 2000 persons in 1854, increased to “about 2300 souls” in 1860. Carmel’s assessment was an increase from 1500-2000 in 1831 to 3500-4000 by 1868. {Carmel (1977), p. 93.} }
house top looks like a grass plat, and on some of them lambs and kids were feeding. 224

Twenty years later M. Rogers already describes a revolution in the built landscape of Haifa: the German Colony, and the houses that the “consuls, foreign merchants, and the wealthier of the townspeople” had built outside the city walls. The houses of the “French traders”, “[...] built in oriental fashion, round courts, (some were paved with black and white marble), and furnished with Turkish divans and French mirrors, consoles, pictures etc.” 225 In another account Rogers mentioned much more sophisticated houses: pitched roofs, belonging to houses of the affluent, which were already built outside the wall. 226

Perhaps the major architectural object in Haifa then was the Carmelites Convent, already there when the Templers arrived. Started by 1827, and designed by the monk Kassini, it was “[...] not only the most praised of Haifa’s buildings, but in the eyes of many, the most beautiful hostel in the country, and even in the entire Levant [...]”. 227 Kassini also designed the summer home of the Ottoman governor, Abdullah Pasha, who was based in Acre. 228

225 Rogers (1989), p. 86. These were inner-court houses with imported building materials and furniture.
Figure 13: Haifa, the Carmelite convent.

Source: Wilson (1880) vol. II p. 132. The caption says, “The Convent of Mount Carmel, its terraced roof commands extensive views along the coast, North and South [...] a lighthouse four hundred and seventy feet above the sea.” The report style is of a military intelligence account.

Arab structures in Haifa

Ron Fuchs (1998) classified the Arab residential houses in Haifa of the late Ottoman period into four types: 1. The Inner-Court House, 2. The Liwan House, 3. The Riwak House, and 4. The Central-Hall House. All four types existed when the Templers arrived in 1868. Although Fuchs attested that the dating is problematic, and needs to be performed, he concluded that the Liwan type have diffused into the region from the North during the end of the 18th century. This was the dynamics of the process: the introduction of new building materials, the technology of the sloped roofs tiled with clay tiles, the availability of wooden beams from Anatolia, the use of glass in openings, and the emerging of the affluent class, expressed its affluence with sophisticated and ornate architecture.

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229 Fuchs (1998), p. 82.
230 Ibid, p. 66. Fuchs’ estimation is in the 1880s (personal communication, June 2002).
The Inner-Court Houses were in use in Haifa before the middle of the 19th century. Hirschfeld (1987) traces the type back to Hellenic and Roman periods, even earlier.231 This house type was also seen in other locations: Cunningham Geikie, a British national with a deep religious interest in the Holy Land, who traveled in Palestine in the 1880s,232 described similar houses in Gaza as a series of rooms around a rectangular court, each room having its own door, roofed with corn-stalks and branches, and topped with compacted earth. 233

Left:

Photo 21: Inner-court houses, in El-Arish, aerial photo 1916.
Source: Gavish (1978), p. 128. Single storey adobe structures, with rooms along one or two sides of the court. The passages between the clusters are minimal and very narrow. Many courts have a tree or two, as in the Fuchs drawing below, for shade.

Right:

Photo 22: Haifa, Haret el Yahud quarter.

232 Geikie, (1891). Geikie testifies in the introduction that his main objective for the visit was “Gathering of illustrations [...]” because “[...] Nothing is more instructive or can be more charming, when reading scripture, than the illumination of its texts from such sources [...] The Land is, in fact, a natural commentary on the sacred writings [...]”.
Figure 14: Inner-Court House, in Haifa, Wadi Saleeb.

Source: drawing by Fuchs, in Fuchs (1998), p. 84, drawing no. 1. Upper portion is a section, lower portion is plan. (Graphic) scale is in meters. Fuchs dates this house to the 1920s, although the type was present in simpler formats in Palestine before the middle of the 19th Century. {Fuchs (1998), p. 65}. Fuchs linkes this type with the lower urban class.

Kroyanker (1985) details the functions of the court in the Palestinian Arab houses of villages around Jerusalem. Activities carried out in the court included cooking, baking, washing, bathing, feeding the animals, tools storage, water holes, tabboon,234 chicken-coop, dovecote, and in the farthest corner, the latrine.235

The Liwan House is seen in Eretz-Israel from the end of the 18th century.236 In essence, it is defined containing a rectangular hall, opening at one side onto the façade, through a wide arch.237 Fuchs assesses that this type has diffused

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234 In Arabic the domed oven for baking bread.
236 Fuchs, above, p. 66.
into the region from the North, the *Liwan* being frequent in Syria and Lebanon.

Other variants on the *Liwan* type are found in Haifa, all having flat roofs made of compacted earth, resting on wooden joists.²³⁸

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**Figure 15: A Liwan House in Haifa.**

Source: Fuchs (1998), p. 85, fig. 3. A single storey structure with a central room which is shorter than the others, allowing for a deep porch, which is also the access space to the other two rooms. This is in all probability a "mutation" of the inner court seen in rural and poorer urban districts. Scale is in meters.

Right:

**Figure 16: A Liwan House in Ghrazir, Lebanon.**

Source: Ragette (1974), p. 69, fig. E36. The *Liwan* is raised above grade, because of the topography of the location. The *Liwan* opens to the slope, a typical situation for Lebanon. The porch as an extension of the *Liwan* has a similar effect as in the Haifa *Liwan*.

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*The Riwaq House* was also to be found in Haifa of the mid-19th Century.

*Riwaq* is the Arabic term for ‘Portico’, meaning a house based on a portico with

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rural unit to the more sophisticated urban units; Canaan (1933) p. 64 provides a similar descriptions and indicates the *Liwan* (Canaan spells *Liwān*) as one of the major types in the urban Arab sector.
rooms laid out along it. Khoueiry (2002) and Ragette (1974) use the term ‘Gallery House’. The portico may occupy the entire length of the façade, sometimes with rooms at each end, with the portico reduced to an entrance porch. Fuchs dates the Riwaq type introduction to Palestine to the end of the 19th century. Templers, in Beirut, before settling in Palestine, could have seen it there. Fuchs quoted the German architect, Berwald, who considered the Riwaq as ‘par excellence’ buildings type to be found in Eretz-Israel.

Figure 17: Riwaq house in Haifa, plan and elevation.
Source: drawing by Fuchs, in Fuchs (1998), fig. 5, p. 87. The portico as a unifying visual for all the rooms behind it, and as an intermediate phase between the building and the outside world.

Photo 23: Riwaq in Lebanon.

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239 Fuchs, above, p. 70 description; See Ragette (1974), p. 38 for a similar definition.
241 Fuchs, above, p. 70.
242 Fuchs, above, p. 70. Which is probably a misprint, since in page 66 Fuchs determines that the Liwan motif started to diffuse into Palestine by the end of the 18th Century.
243 Sauer (1991), p. 48, documented the presence of a number of Templers in Beirut, coming from Germany and Russia, and waiting for Hoffmann and Hardegg.
244 See chapter “Architectural Style” for discussion concerning Berwald and his observations.
The Central Hall House: Khoueiry (2002) regards the Central Hall house as a very old type, tracing it possibly to the Roman Atrium. This house type is a rectangular block, covered with a high four-slope (hipped) clay tile roof. On top of the ground floor, used for commerce or storage, was the dwelling upper floor. In the center of the façade, an opening composed of three arched fields. The arrangement of the façade reflected the organization of the plan of the upper floor, since the three parts opening marked the end of a central hall which crosses the floor from one end to the other, having rooms on both sides.

Figure 18: Central Hall House in Haifa.
Source: drawing by Fuchs (1998), p. 91. Scale is in meters. The Riwaq has been reduced into a shallow porch and the central hall has rooms on three sides. The symmetry in the elevation reflects the order and organization of the plan.

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Photo 24: Central-hall house in Lebanon.
Source: Khoueiry (2002), p. 3. Khoueiry remarked that the entrance to these houses was “[...] directly from the rear or indirectly from the side via a corridor, but never from the front triple arcade.” Same observation was made by Fuchs (1998), p. 73. The example above is an exception.

Right:
Figure 19: Ruff’s elevation design for an unknown client, Haifa, 1920s (?).
Source: the Schumacher Institute Archive, file AGC07a. The triple arcade opening in the center echoes of the Palestinian central hall house syntax. Ruff already knew well the technology of reinforced concrete and did not need to resort to stone masonry and the syntax that goes with it.

Fuchs’ dating of this type in Palestine is “The new Arab construction of the 19th Century in Haifa and other Eretz-Israel towns.” During the 19th Century the Central-Hall House became the most common type of house in Lebanon, and was quickly adopted by the urban Palestinian Arabs.

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Outline: the Reality and Inventory of the Architectural Landscape in Eretz-Isreal, 1860s.

► The 1850s – 60s were a period of great expansion of towns in Palestine, mainly around Jerusalem and Jaffa. There were institutional efforts, and also formation of new residential districts. For example, in Jaffa the new neighborhoods of Agamie and Gabaliyeh, Abu-Kbeer and other suburbs,\(^{250}\) and in Jerusalem the Jewish neighborhoods of Mishkenot-Sha’a’nanim (1860), Machneh-Isra’el (1868) and Nachalat-Shiv’ah (1869).\(^{251}\) There was also progress in the liberalization of land acquisition procedures for non-Ottomans,\(^{252}\) which accelerated this expansion. Independent European settlements before the 1850s were nonexistent.

► The security problem. Many neighborhoods in towns throughout the Ottoman Empire had walls and iron gates. In some cases, these gates which were locked at night, and in times of danger. More than any other external indicatives, the walls and the gates of each neighborhood symbolized the isolation of each ethnic group from the others.\(^{253}\)

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\(^{250}\) Kark (1985), pp. 60-61. Most of this data resulted from an analysis Kark made of the two Theodore Sandel Maps of Jaffa drawn 1878-79. Another map Kark mentions in her analysis is the British Royal Engineers Map from 1842.

\(^{251}\) Dates from Bahat (1989), p. 117.


Another design response to the poor security situation was building of row houses, or around a court, so that the perimeter could be more effectively defended. (\textit{Kikar Batei Machseh and Mishkenot}, see above, pp. 92, 102, in Jerusalem are examples), and in the Jewish settlement tradition, this was often continued in the 1920s, when protecting walls were a routine consideration.\textsuperscript{255}

Many Arab houses especially in the mountains of Judea and Samaria were actually single inclusive space for sleeping, cooking, domestic animals and storage; a main reasons for this being to secure property.\textsuperscript{256}

\textsuperscript{254} Carmel (1990), p. 183.
\textsuperscript{255} Ruppin (1925), pp. 52-53.
\textsuperscript{256} Hirschfeld (1987), p. 60.
In Sarona, one of the factors in choosing the location of houses, was the defendability potential of the hill on which the Templer architect Theodor [sic] Sandel (*1845 +1902) planned the Colony. In fact, the relative high elevation of Sarona was the main consideration, allowing for better visibility and control of fields.\(^{257}\) This was also a common consideration in siting Arab villages.\(^{258}\) Though the Templer settlers encountered constant problems of security,\(^ {259}\) they did not copy the local the characteristic of minimal openings, but rather used many windows, mostly large, and usually more than one entrance to their houses.

\(^{258}\) Kroyanker (1966b), p. 130.
\(^{259}\) Carmel (1990), pp. 43, 60-61. Carmel described in detail (pp. 180-197) the relations between the Templers and the local Arab populace, and the hostility of that population toward the Germans. See also Kark (1985), p. 25, 30.
In Arab Communities, *no expression of caring for the town’s (or community’s) interests*. There was no ‘communal architectural discipline’; no planning on the settlement level. Each homeowner built as he saw fit, resulting in an absence of order, a lack of public amenities, no roads or other infrastructure.

In Arab villages of the 19th Century, shared interest stopped at the extended family level (the *hamoula*). Conflicts of interests between *hamoulas* were often resolved by violence, sabotage and bloodshed.260

In the Arab villages, the impression of the houses in old settlements was, except for Jerusalem, lack of architectural interest, many urban houses resembled those in the villages, with flat roofs. The houses of the well-off were larger, but seldom deviated from the ordinary look of plain rectangular walls.261 Arab villages were smaller than the towns and even more isolated; houses poorer, lower (usually one floor only), closer together and usually without windows. Even wealthier people, who built larger two floors houses, were reluctant to have them look too good, for fear of the tax collectors.262 The evolvement of the Templer Colony of Haifa as a planned-in-advance entity,263 was new to the region and would have a profound effect on later developments in Haifa and elsewhere in Palestine.

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260 Avitsur (1976b), p. 84.
262 Ibid.
263 Ben-Artzi (1996), p. 117; Carmel (1990), pp. 20-22; see discussion in the Haifa Colony Section, p.201.
Usually neither architects nor engineers were used in the rural Arab sector; there was no such thing as ‘planning’ or ‘design’, only institutions or the houses of wealthy villagers were designed prior to construction. Where architects were used, “[…] the architect is merely a more experienced mason.” When a landowner wanted to build, he called upon the moualem-banna (in Arabic ‘the learned mason’) i.e. the professional builder. Both Dalman (1942), and Canaan (1933), point this out. In the 1980s Hirschfeld interviewed Arab builders in the Hebron Ridge, and his findings show that no drawings were used at all; walls were marked on the ground, with ropes, and built along the rope alignments.

In the Arab Sector some construction procedures were kept secret, and handed over from father to son, so it was hard to obtain some information. In the Middle Eastern cultural landscape, attitudes were far removed from figurative

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264 Canaan (1933), p. 25; see also Landmann (1982), p. 179.
approach; Middle-Easteners, Moslem and Jewish, dedicated to certain lifestyles and social structures, treated with leniency, even with understanding, new building construction patterns, as long as these did not create conflicts with local customs, thus being susceptible to new style statements.\footnote{Cassutto (1979), p. 228.}

► European architecture as an indicator of Regional Political Interests.

With the granting of civil rights to non-Ottomans by Ottoman authorities (1840s), many foreign entities embarked on an unprecedented wave of construction, especially in Jerusalem. Churches, welfare agencies, consulates, and pilgrim amenities were now being built and financed by foreign powers.\footnote{Bahat (1989), pp. 61-62; Eisenstadt (1997) p. 2; see discussion in Chapter. 2, Historical Background.} The peak of this phenomenon was the erection of the Augusta Victoria complex on Mount Olives (1906, designed by Leibnitz).\footnote{Meir-Merril (1997), p. 53: The Architect who started the design was Gause, an architect from Berlin, who died shortly after the first plans were drawn up. He was replaced by Leibniz, who hired the Templer architects Th. Sandel and G. Schumacher to do the local supervision and detailed design.} It was a “[…] Crusader–like fortress, controlling the Old City and its surroundings, demonstrating the power which the emperor William II attempted to convey […]”.\footnote{Kroyanker (1966a), p. 133. See also Ben-Arieh, Jerusalem, 19th Century, pp. 59-60 for his remarks on the political ramifications of the construction of Augusta Victoria.} Similarly, the Russian Compound in the 1860s.\footnote{Guérin (1985), p. 38-39.}

► The prevailing building technologies were cut stone and rubble stone masonry, sun-dried mud bricks or blocks, tents, timber, and reed mat sheds in the north.\footnote{Beilharz (1877), p. 26, reported reed mats and baskets made by locals near Caesarea, where he was engaged in a construction project for a local effendi. The dwellings he saw there were “tents made of goat skins”. See also the same report in Sauer (1988), p. 89.}
In small villages of Palestine, very simple construction techniques were employed, relying on available materials and traditions and varying with the different regions as well as means and availability of skilled persons.

On the Coastal Plane and in the northern valleys the construction material was soft limestone and adobe;\textsuperscript{274} in the mountainous regions it was limestone with bonding mixes, in the north it was basalt stone and straw reed mats.\textsuperscript{275} The Bedouins used only collapsible (and therefore movable) structures, tents and reed mat shades. In remote locations, building technologies were goat-skin tents; straw-mat tents; dry-masonry watchman's booths.\textsuperscript{276}

\textbf{Figure 21: Reed mat sheds and tent in the Huleh Region in northern Palestine.}

Source: drawing by McGregor in Ben-Arie (	extit{1970}), p. 205. This was the available material in the Huleh Valley, it was lightweight and durable, and the Bedouin developed a weaving method for the mats.

\textbf{Photo 28: Bedouin girls collecting reed at the Huleh Valley.}

Source: Cathedra 99 (2001), cover and Abbasi, p. 124. From the collection of the American Colony photo archive.

\textsuperscript{275} Canaan (1933), p. 109; Mor (1994), p. 34 and p. 61; Avitsur (1976b), p. 36.
\textsuperscript{276} Tumarkin (1988), p. 97, explained the connection between the abundance of stone and the ‘clearing of stones culture’ and the products resulting from it.
Photo 29: Clay and rubble stone, mixed construction.
Source: Avitsur (1976a), p. 133, photo 356. The woman in front mixes the clay; the woman in the middle hands the materials over to the builder. The only cut stone is at the sides of the opening. The final surface will be plastered with a clay mix.

Photo 30: A dwelling made of rubble stone and dried clay in the coastal plane.
Source: Avitsur (1976a), p. 126, photo 338. (No date provided). The roof is thatching on top of a simple wood substructure.

Figure 22: A potter in front of his house, vine pergola in front.

Photo 31: Summer Hut, vine pergola on top.
Source: Canaan (1933) near p. 107 plate IX fig. 2. Both structures use stone, in varying degrees of cutting. The potter house is roughly cut stone with a modest use of cementing mix. The summer hut is ‘dry’ masonry without any cementing mix, and using of uncut rubble stone. There are no courses, the stones are laid spirally, stability is achieved by the conical geometry and tight fitting of the stones. Both structures make use of vine as a shading element.

► Building types in Palestine in the second half of the 19th Century.

Landmann described three types of Arab urban houses in the 19th Century: a-
daar, the inner court house; el-beit, a single room unit with a door; and the el-manzel, a 2-3 rooms house.²⁷⁷

Nearly all Fellāh [Arabic for ‘peasant’] houses were constructed according to one and the same plan.²⁷⁸ The Palestinian peasants' houses were introverted, with minimal openings, dusky on the inside, usually single storey, versus the open European – big windows, low fence, use of glass in the windows, multi storey structure.

In Haifa and Jerusalem other building types existed, as described above, see pp. 98 ff. and pp. 108 ff. for detailed description.

**Figure 23: Canaan drawings of the Palestinian Peasant House.**

Source: Canaan (1933), p. 60 and 61. Left is the plan, right is section A-F. The roof is supported by the bearing walls and the two arches (a), spanning between them a series of beams (e). The single space unit is about 4.5x5.5 m (14.8x18.2 ft.) which yields approx. 25 Sqm or 270 Sq ft. Ragette (1974) provided slightly smaller figures, about 20 Sqm (p. 16). The above figures are measurements on the inside.

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²⁷⁸ Cannan (1933), p. 25. In pp. 60-61 Canaan provided a plan and section of the “House of the peasant”.

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Figure 24: Peasant’s House in El-Gabbah, ground floor and upper floor plans.

Source: Hirschfeld (1987), pp. 89-90. Scale is in meters. Both images are details of the full drawings. El Gabbah is a located in the western edge of the Hebron Ridge. The house is a typical single-space, two-level unit, with a vertical division of the space: the ground floor for livestock and storage, and the upper level for living.

► Functionality: In rural Arab dwellings, one single structure contained all the functions. This is an essential aspect of local architecture, which the Templers knew in a variant format from Germany, namely the Einhaus (the ‘Unified’ House). This was the most common type in southwest Germany. The principle of unifying all functions under one roof, but on separate floors, was applied in Germany in order to save agricultural land; in Palestine there were other reasons; in Germany there was a complete separation in levels, while in Palestine it was in a single space, with open levels.


280 Hirschfeld (1987), p. 60, assessed that the reasons were security and the scarcity of water, which created the constant threat of drought and similarly constant effort to save water, which forced the inhabitants to endure the presence of animals inside the house.
The Templers did not, in general, build that way in Palestine: the vast majority of their rural houses were dedicated for dwelling only, other functions were relegated to a separate structure, inferior in terms of materials and finish, which served for the animals, the barn, and storage of tools.

Ben-Artzi (1996) links the evolution of the Unified House in Germany with intensification of the small landowners phenomenon, which led to the practice of the Unified House.281 One possibility arising from this determination is, that the

Unified House was associated with the poorer population, or that section of the population subject to land shortage. These were labels which the Templers in Palestine were eager to dissociate from: they wanted their architecture and layouts to convey a generous use of land and, no less, a general sense of well-being.

![Photo 32: A Unified House, Near Stuttgart.](image)
Photo by Ben-Artzi (1996), p. 82.

![Figure 26: A Unified House in the Black Forest Region.](image)
Source: drawing by Fischer (1940), p. 145. A different expression for the ground floor with a different finishing material, perhaps in order to signal separation of work and living levels. In the Fischer drawing, the difference in the windows on ground level also make a point: those within the entrance area on that level represent ‘human’ use, those in the back representing farming use.

 ► *The engagement of Arab stonemasons especially from Bethlehem and Bet-Jalla.* German stonemasons were also brought in by the Templers, and put in charge of constructing the German houses, probably assisted by Arabs. The Templer leadership made it a priority to ‘mobilize’ builders and masons as part of the ‘first wave’ of settlers.\(^{282}\)

\(^{282}\) Ben-Artzi (1996) pp. 129-130, mentions the names of the Beilharz family, Jakob Schumacher, Gottlieb Schumacher (not Jakob’s son), Oldorf the joiner, to be followed by others associated with the building trade, engineers, architects, surveyors, joiners, plumbers and others. Blaich (2003), p. 4 mentions also the family of Johann Martin Wennagel who arrived with the other builders.
Arab masons were active in the construction of the Schneller Compound in Jerusalem.\textsuperscript{283} Kurt Beilharz reported an Arab mason, Challil, who lived with the Beilharz family and was employed on a permanent basis by his father.\textsuperscript{284} This kind of cooperation between German and Arab masons is similar to the methodology used by the ‘Separatists’ in Zoar, Ohio: wherever there was little or no knowledge of a specific technology (or shortage of skilled persons), the settlers ‘bought it’.\textsuperscript{285} Conrad Schick reports the employment of stone-cutters and masons brought in from Malta, in the 1840s, for the construction of Christ Church in Jerusalem, who quickly conferred this know-how to local Arab workers, who then became highly proficient.\textsuperscript{286}

![Figure 27: Arab stonecutters in Nazareth.](image)

![Photo 33: Jewish stonecutters.](image)
Source: Avitsur (1976a) p. 125 fig. 337.

\textbf{No wood frame construction}, and little use of timber elements as structural members. The reason: lack of timber and means of transportation, and

\textsuperscript{283} Eylon (ND), p. 3.
\textsuperscript{284} Beilharz (2000), p. 3.
\textsuperscript{285} Kathy Fernandez, Zoar site manager, personal communication, Aug. 2001.
\textsuperscript{286} Schick (1897), p. 113.
thus no available skilled builders or joiners. The only examples of wood structures, some of which ‘half timbering’, were in the American Colony in Jaffa, and imported from Maine, USA, remaining an isolated phenomenon.\textsuperscript{287}

Wood structures for pitched roofs in institutional buildings were already in existence, for example in the Schneller compound in Jerusalem. There is a link between the appearance of dimensional lumber in Palestine in the second half of the 19th Century and the institutional, mainly ecclesiastical construction which came into being after the Crimean War. Dimensional lumber was used for roofing substructures in churches and monasteries. These technologies touched upon the urban populace but did not reach the villages.\textsuperscript{288} In Jaffa, too, there was no wood construction during the first half of the 19th Century.\textsuperscript{289}

► **Dense layouts and agglomerated architecture.** The architecture of the Palestinian Arab village as a whole (and generally in the historic towns in Palestine of the mid-19th Century,) is characterized by irregular geometry, high density, small scale. Out of the seeming lack of order there emerges a cohesive homogeneous and strong architectural statement. The cohesiveness and similarity of many of Arab village houses may be attributed, to the few construction procedures and rules adhered to by the ‘masons school’ of the Hebron Ridge, therefore creating a uniform architectural appearance.\textsuperscript{290}

\textsuperscript{287} Lifschitz, Lev-Yadoon & Biger (1988), p. 78: A laboratory testing of some of the wooden elements of the houses proved all structural members were made of timber common in the northeastern United States, in the same region where the American settlers came from.

\textsuperscript{288} Avitsur (1976), p. 263.

\textsuperscript{289} Kark (1985), p. 43, quoting Turner, Satsen and Visniakov.

\textsuperscript{290} Hirschfeld (1987), p. 59.
Low silhouette houses: Stone masonry and adobe construction use bearing walls, which determine room size, and the structure’s height; two-storey houses were an exception, usually associated with the more affluent sectors of the populace. Most of homes in villages were single-storey, one-room, flat-roofed, and single Arab rural houses limited to a span of 4.5x4.5 m, (about 15x15 ft.). The other reason for the size of the spans was the length of the wooden beams available.291

The height of structures is also limited: the higher the wall, the thicker it need be. It also involves a greater degree of construction skill. Kark (1985) delineates minimal height structures as a general phenomenon in urban Jaffa: small, low dwellings, no higher than a floor or two, thick walls, the roofs partly

flat, partly with domed in the center. Due to the intensive use of roof surfaces, it was customary to build perforated banisters.292

Two more additional reasons for the ‘low-profile’ ‘low-silhouette’ approach by locals: a tendency to evade tax collectors, and the lack of importance given in the Middle Eastern culture to figure and form.293

► Minimization of openings, most without glazing. Arab houses had few openings, other than doors, sometimes just one door, and sometimes no openings at all.294 Small windows were part and parcel of rural Arab stone masonry construction, with the size of lintels295 determined by quality of the stone and the vertical loads it could sustain, stone being weak in tension - which develops in the lower part of a loaded lintel or any beam, for that matter. Thus the lintel must be short, or deep, to resist tension. In regions where stone is the major building material, the practical ramification is using a single member for the lintel, which results in a small opening. This shortcoming can be overcome by using an arch, or a relieving arch, or both, spanning an opening with a number of stone members. But arches for openings developed late in the Arab villages, only with improvements of stonecutting techniques.

295 Stone masonry term, from Huntington (1967), p. 213. The horizontal member supporting the masonry above a wall opening.
Openings in the houses of rural Arab settlements are particularly narrow for much the same reasons: their size was correlated mainly with the limitations and discipline of stone masonry construction.\textsuperscript{296} The location of openings on walls also underwent changes: older buildings had openings on the upper part of the wall, later buildings had larger and lower openings.\textsuperscript{297} There is a probable link between the introduction of glass as a membrane material and the width of openings: until the 1850s, glass was not common in windows in Palestine,\textsuperscript{298} Windows were merely openings usually not exceeding one meter (3.3 ft.) wide.

\textsuperscript{296} Kroyanker (1987b), p. 48.
\textsuperscript{297} Canaan (1933), p. 33; Kroyanker (1987b), p. 48, explains that the location of wall openings and their size were considerations in favor of better defense and in order to restrict the infiltration of solar radiation to cool spaces. Ventilation was accomplished with small openings above the main openings when these were shut with wooden leaves.

\textsuperscript{298} Schick (1897), p. 106. Similar data is provided by Hirschfeld (1987), pp. 63-64
The small openings made it possible to leave them open year round and be closed with wooden panes on really cold days.\textsuperscript{299}

\begin{itemize}
  \item \textbf{Flat or domed roofs or composite.} Roofing was of two types: 1. \textit{Flat roofs} made of wooden beams, covered with branches and reeds, and topped by thick layers of compacted earth, and 2. A \textit{stone dome or a cross vault}.\textsuperscript{300} Flat and domed roofs were the overwhelming means of spanning spaces, both methods stemming from available materials, know-how, and building tradition. The flat roof, topped by compacted earth, had to be constantly maintained;\textsuperscript{301} the domed roof was masonry construction, using flat domes on the outside and usually cross vaults (sometimes called groined vaults) on the inside.
\end{itemize}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image1.png}
\caption{Figure 29: Section through squared masonry wall and earth roof. Source: Ragette (1974), p. 23, fig. F21.}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image2.png}
\caption{Figure 30: Section through a traditional dwelling, \textit{Yata}, Hebron Ridge. Source: Hirschfeld (1987), p. 71, fig. 43.}
\end{figure}

\textsuperscript{300} Canaan (1933), pp. 37-38.
\textsuperscript{301} Avitsur (1976a), p. 134, where he also described in detail the components of the roof.
There were thermal advantage to domed roofs: compared to flat roofs which were subject to direct solar radiation all day, domed roofs were partly in the shade for at least a few hours. Vaulting was also the method of choice for two to three storey urban houses where the first level used cross vaults, the floor of the first storey was leveled with debbesh (Arabic for a compound mix of small rubble with cementing agents) and compacted earth, the top stories with wooden or steel beams.

Figure 31: a. Tunnel (or barrel) vault, and b. Crossed (or groined) vault.
Source: Fleming et al (1967), p. 232, fig. 85. Perhaps the most important construction feature in Eretz-Israel until the 20th Century: it allowed utilization of stone, for construction of roofed spaces, using the geometry to make stone columns, thus enabling a structure of any size by adding more vaults in two directions.

Photo 37: The ‘Palestine Office’ Building in Jaffa, during demolition.
Photo: February 2002. The ground floor ceiling is masonry cross vaults topped with compacted earth, over 1.00 m thick. The higher ceilings, dimensional timber joists, spaced at 50 cm apart. The anchoring holes can be seen on the exposed wall. During the 1890s, the timber joists were gradually replaced by Steel “I”-beams, (known locally as “rails” because the first ones came from the railroad projects.)

European architects also resorted to these methods too. Conrad Schick designed buildings in Jerusalem with masonry domes, for lack of suitable building materials for roof construction. His domes are as flat as possible and do not protrude.\footnote{Meir-Merril (1998), p. 42.}

Flat roofs played an important part in daily life in Arab villages as well and towns. These were used to dry fruits and vegetables, age sesame stems, general storage, and a place to sleep on hot summer nights.\footnote{Avitsur (1976), p. 134; Hirschfeld (1987), p. 152; Cassutto (1979), p. 219. Cassutto reasons that this usage of the roof by Arabs is the reason why the pitched clay tile roof was first introduced by Templers and Jews and only later became a widespread convention.} In such, the roof was a central feature of Arab villages: women communicated from rooftops, and certain ceremonies were conducted on the roofs.\footnote{Kroyanker (1985), p. 43.}

\begin{center}
\textbf{Photo 38: Jerusalem ca. 1885: types of roofs.}

\end{center}

\begin{itemize}
\item \textbf{Clay-tiled roofs} were already in use in Palestine when the Templers arrived, in the Schneller Compound, in the former Husseini house, and
\end{itemize}
elsewhere, using tiles manufactured by the Schnellers and a Jewish manufacturer in the village of Moza, (and by the 1900s concrete tiles made by the Wieland brothers in Jaffa). The Templers adopted the clay tiles for reasons of practical maintenance, plus availability of the dimensional lumber which was required for the roof substructures; these roofs, easy to construct, were a familiar technology for the Württembergers.

Photo 39: Schneller main structure.
Source: Landau (1979), p. 49. Detail from the photograph.

Photo 40: Schneller Clay Products Plant.
Photo by Ted Brauner, National Photo Collection. The date on the photo is 1950, which is probably a mistake. Gordon (1988) p. 293 describes in detail the variety of products the plant has been marketing, and the ‘German’ clay tiles which were a copy of the ‘Marseilles’ tiles imported by Breisch.

*The use of water cisterns* – was in Jerusalem and in the mountainous region in general, to collect and provide clean unpolluted water. Canaan

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307 Avitsur (1976b), p. 328, the factory of Alther Greenberg; Gordon (1988), pp. 293-296, describes the clay products factory at the Schneller Compound; Eilon (2000), p. 130, dates the beginning of Schneller’s production to the 1870s, and the Greenberg’s production to 1882 and later the Steinberg factory also in Moza in 1923.
309 Hirschfeld (1987), p. 182; Kroyanker (1966b), p. 130, where he describes the cisterns as ensuring year-round water supply in years of drought.
(1933) attributes major importance to the cistern in the Palestinian construction culture, regarding the cistern as an integral part of the Palestinian house, and describing in detail the various types of cisterns and the way they are shaped and waterproofed.\textsuperscript{311}

![Photo 41: Outside cistern in a Palestinian house, outside the house.](image)

![Photo 42: Cistern in the lower storey of a Palestinian house.](image)
Source for left and center: Canaan (1933), plate V, figs. 1 and 2.

![Photo 43: Kraiß House, Haifa, basement level.](image)
Photo: June 2002. The cistern was behind the wall on the right.

In Jerusalem, the public water system was notoriously unreliable, a main reason for the Europeans to move out of the walls.\textsuperscript{312} Ben-Arieh tells us about a cholera epidemic which broke out in Jerusalem in 1866,\textsuperscript{313} causing hundreds of deaths. The fact that not a single inhabitant of Mishkenot Shaananim died in the epidemic, indicated to the Jewish population that there was a correlation

\textsuperscript{310} Eylon (ND), p. 2.
\textsuperscript{311} Canaan (1933), pp. 22-25; see also Landmann (1982), p. 179.
\textsuperscript{312} Ben-Arieh (1980b), p. 45.
\textsuperscript{313} According to Eisenstadt (1997), p. 4, the cholera epidemic struck in 1864. Eisenstadt also marks the epidemic as one of the drives to settle Jews outside the walls.
between the quality of the water and their health, and was largely responsible for
the development of new neighborhoods outside the Old City walls.

*Interim Summary, Built Landscape of Palestine in the 1860s*

This detailed cross-section points at the fact that there were live traditions
of building construction in Palestine at the time of the first Templer settlement;
the Arab tradition, in both towns and villages; the ‘institutional’ European
construction mainly in Jerusalem, and the European and American initiatives in
establishing communities and compounds, as well as the a range of
construction technologies, going from the simple to the complex.

For the Templers, the meaningful structures were in the cities: Jerusalem
and Jaffa, where the well-to-do, the European Powers and the Ottoman
authorities all invested in structures for more complex and ‘engineered’ than the
local Arab ones. The Arabs’ tradition was only partly adopted by the Germans;
the community house, the first German building in Haifa, contained ‘oriental’
elements, perhaps because it was designed by Loytved, who came from
Beirut, and because the Templers, at that point, lacked enough experience in
building construction of their own in Palestine. The fact that they later changed
the design of that structure supports this assumption. There were no new
independent settlements and thus no local experience in this area. The few
appearances of wood frame construction in Jaffa imported by the Americans did

in the 19th Century and associates the momentous building construction of these bodies with it.
not appeal to the Templers; they bought most of the houses in Jaffa, and made changes to some of them later, using other materials and building technologies.\textsuperscript{316} The new houses, built in the Jaffa Colony, were also masonry stone or brick or composite construction. Although Breisch, a prominent Jaffa settler, was an importer of timber for construction,\textsuperscript{317} no wooden houses were built in Jaffa (or anywhere else) by the Templers, except for substructures for roofs and wooden ceilings (see image below).

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{imberger_house_interior.jpg}
\caption{Photo 44: Interior of Imberger House, Wilhelma.}
\end{figure}

Photo: May 2002. The original hardwood beams are still intact. Cross-section dimensions of each beam are 10x20 cm (4”x8”). The beams rest on a bearing wall built with soft limestone and plastered. Except for electrical light fixtures, the house has not changed in the last 90 years.

The villages in Palestine were agglomerated and not pre-designed, a quality which the Germans introduced to Palestine of the 1860s. In the Arab

\textsuperscript{316} Ben-Artzi (1996), p. 135. Wood frame houses were the first to be occupied by the Templers in Palestine, since the first stone houses in Haifa were only completed in 1870.
villages, one saw a cohesive, homogeneous, same form-syntax building design, as described above; it can be argued that much the same logic existed also in the Templers’ settlements: the limited number of skilled masons and other building trades personnel, and the ‘closed system’ of producing and marketing building products that the Templers operated, and contributed to the evolvement of a ‘Templer Style’. For the Germans, considerations for building design were different from those of the locals: because they were outsiders, and reported to the respective consuls and not the authorities, they did not hesitate to break the ‘low profile’ single-storey convention. They preferred the precedents of the Schnellers and the buildings of Schick (see above), to the local building tradition. Some elements used by the locals, such as cisterns, arched openings, a centrally-organized plan, were already known from Germany, were not copied but rather implemented as Templer attributes.

The built landscape which the Templers encountered in the Palestine of the 1860s was, with the exception of the early European architecture, much different from their ideas and expectations. The architecture they themselves created established a new reality in the region: in Chapter Five, their architectural achievements in all their seven colonies is described.

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318 See discussion of the issue in the section ‘Markers of Domestic Residential Templer Architecture’, p. 378. The Templers factories soon became appreciated by other populations, and spread in Palestine; Jewish manufacturers later imitated the Templers products, but alas not the same quality.
Chapter 4: Templers in the United States

**General Background**

Below, a background outline, for understanding the dispersion on the Templers in locations other than Germany and Palestine, in particular in two spots in the U.S. - *Maresa* near Buffalo N.Y. and *Tempelfeld* near Gypsum, Kansas.

Maresa and Gypsum Settlements were both attempts at starting off a new community from scratch, in contrast to other communities which already existed and only made the conversion to, or were closely affiliated with, the Temple Society. Tempelfeld was the last of the Templers’ active communities, and Templer descendents still live there.

Some discussion is provided about the town of Gypsum; although few Templers resided in Gypsum, a look into Gypsum proper permits understanding the construction materials used, the building and construction culture and of the ties the Tempelfeld Templers had with the town itself.

In 1875, Hoffmann wrote: “[…] a sizeable number of ‘Friends of Jerusalem’ […] could be found amongst the German settlers in Southern Russia and in North America. The main link with these distant members was the ‘South German Sentinel’. In a school at *Kirschenhardthof* young men were trained as
evangelists, whose task it was to spread the ideas of the Temple Society.

Later Hoffmann was to acknowledge the democratic spirit of the U.S. as one of the major forces attracting Germans: “[…] The deliverance of North America, where, for the first time, was established a government upon the basis of equal rights to all, without distinction of race or of religious faith.”

Following formation of the ‘German Temple’ in 1861, two German congregations in the state of New York - Buffalo and Schenectady - became the first American groups to join the Templer movement. In Buffalo, prominent figures such as Jakob Friedrich Schumacher (*1825 +1891) the architect and stone carver, and others, were instrumental in adopting the Hoffmann’s teachings. In Schenectady Pastor Wilhelm F. Schwilk initiated this conversion of his congregation to the teachings of the Temple Society, and Schenectady became the largest Templers’ congregation in the country. Sauer (1991) describes a “loose affiliation” with other U.S. Templer communities.

319 Hoffmann (1875), p. 6.
320 Hoffmann (1878), p. 3.
321 Hoffmann (1875), p. 6.
323 So it appears from the Buffalo City Directories, 1865, p. 296 and 1867, p. 371. In 1865 Schumacher presented himself as “Architect and Carver”, while in 1867 the “carver” was dropped, the title remaining only “architect”. He was trained as a stone carver in Germany, and the Schumacher Institute in Haifa has on file his original diploma for this training.
Tempelfed, near Gypsum, Kansas, was the most western point; it lasted the longest, perhaps because it was isolated and not subject to the changes which took place on the East Coast, where the rest of the communities were. The layout of the Templers’ communities on the East closely follows the alignment of the Erie Canal, opened in 1825; these were fast growing towns in the second half of the 19th Century, and attracted immigrants, many of them from Germany. Inset, right: enlargement of the Northeastern region.

Ties with the Templer communities in Palestine: members of the Buffalo Community were sent to Kirschenhardthof, near Stuttgart, for deeper and advanced studies of Hoffmann’s teachings in the 1860s. At the same time, ‘graduates’ of Kirschenhardthof emigrated to the U.S., forming Templer-affiliated communities in Philadelphia, Baltimore, Long Island, Detroit, Erie and Pittsburgh, Pennsylvania.326

In later years, the association between the two American Templer congregations and the Palestine Templers tightened. In 1881, Hoffmann, his son, and Jakob Schumacher were invited to the U.S. to discuss the Schenectady and Buffalo communities. As a result, young people from Buffalo were sent to Jerusalem to study at the Lyzeum, and a decision was made to open a school in Schenectady “to be reinforced with [teaching] representatives from Jerusalem.” After World War I, the Templers, returning home to Palestine, needed assistance from the U.S. Templers to rehabilitate the farms and fields, and again, the American friends donated the first means for that purpose.

**U.S. Templers’ Political moves.**

Some of the more active members in U.S. Templer communities were deeply interested in the settlement venture in the Holy Land, and attempted to persuade the U.S. Government to become involved in the ‘Eastern Question’ issue; In a letter to the editor published in a German-American periodical, an U.S. Templer writes about the Civil War and its ramifications for Germans in America: “[…] the American [war] disaster is the right time to mark the prophecy, to gain hearts for Jerusalem and at the same time to adhere to the American causes, which are similar, actually, to that of the Temple in Jerusalem […] we

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328 Lange (1899), p. 821. Ben-Arieh (1979), p. 181 also described the Lyzeum in Jerusalem as a focus of education for Templers from foreign countries, including the U.S.

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were very satisfied that the Germans in America unanimously supported the Union, and by so doing gained respect in their new homeland." [Translation by J. Ivri]. In 1868, with the start of the Templers’ settlement venture in Palestine, three U.S. Templers - Schwilk, Schumacher and Kiesel petitioned to the Government and Congress in Washington. The document signed by many U.S. Templers, describing the importance of the ‘Eastern Question’, and their concern regarding the future of Palestine and Jerusalem, noting that U.S. involvement in the issue is indeed a U.S. interest, and comparing the Templers’ settlement to the “Pilgrim Fathers”. The petition concluded with a request that the U.S. Government act with the Ottomans for land allocation for the Templers, and maintain a proper protection for the colonies. Once the Templers’ settlement in Palestine had materialized, some U.S. Templers emigrated to Palestine to become prominent members in the Palestine communities: the families of Schumacher, Struve, Scheerer, Hengist, Oldorf, Deininger, Roller, Kraiß, Wurster and Bätzner. Schwilk, one of the co-signers on the petition, arrived in Jaffa in 1871, with a generous donation of 5,000 guldens donated by the ‘Harmonists’, a U.S. group of Württemberg origin, which supported the

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331 Letter to the editor, TGD Archive, October 24, 1861, unknown writer, p. 1.
332 Schanz, (ND), TGD Archive p. 2.
333 The Oldorf family originated in Mecklenburg, immigrated to America, from there to Haifa in 1870, later to Jaffa, had a flour mill in Ashdod, and finally settled in German East Africa after the collapse of his business in Palestine. For a time, Karl Oldorf, a cabinet maker, became a hotel owner in Beirut. M. Higgins, personal communication, July 2002; Ben-Artzi (1988a), pp. 98-100; Ben-Artzi (1996), p. 106.
336 The ‘Harmonists’ led by George Rapp (*1757 +1847) came to America from Iptingen near Stuttgart, early in the 19th Century, and built three successful towns in eastern U.S. They were millenarists, and practiced Communalism. They combined industry with agriculture, and were considered an economic success. By the end of the 19th Century the organization disintegrated.
Templer cause. Schumacher tried hard to create interest in the U.S. State Department for the Templer Colonies: in 1881, he and Pfalzgraf met seniors in the U.S. State Department where they were enthusiastically received, but he was not as successful with raising funds. Lange (1899) quotes Schumacher, expressing bitterness regarding the unresponsiveness of U.S. clergymen to his cause.

Photo 45: Struve’s house in Haifa.
Photo 46: Oldorf’s house in Haifa.

Photo 47: Schumacher’s house in Haifa.
Photos: April 2000. ‘American’ Templer houses in Haifa. All houses except Schumacher’s have the same configuration: a main mass with the long dimension parallel to the street, and a smaller gabled mass projecting from the center of the main body. All houses are on the colony’s main street.

337 Lange (ND), Source: TGD Archive; Arndt & Olson (1961), p. 330.
338 Lange (1899), p. 825.
339 Lange (1899), pp. 825-826.
340 Also termed ‘Cross Gabled’; see McAlester (1992), p. 45.
Map 5: Schumacher Map of Haifa, 1873

Mapping of Haifa and Templers' politics. Above, Haifa map, source: Jewish Virtual Library, [On-Line], http://www.us-israel.org/jsource/loc/maps.html, available May 2002. The original map was drawn by Jakob Schumacher, 1873, is on file in the Library of Congress (call number: G7504.H3 1873.S Vault). Schumacher signed it as “Surveyed and drawn by Jacob Schumacher citizen of the U.S. of the N.A. [North America]”. The map was presented to Senator Carl Schurz, from Missouri (*1829 Germany +1906 New York City), the first German American to join the US Senate. 1873 was only a few years after the Civil War, and the U.S. Government had no interests yet in the Middle East. The map makes every effort to link the Templer Colony with the U.S. It is titled “Plan of the German American Colony and Vicinity”. Two ships, (the New York and Uncle Sam) flying U.S. flags are drawn off the coast next to the colony. The Colony itself, (right edge), is the largest object on the map, double the size of the Old City (left of center, with walls), and the built-up strip along the coast. Schumacher, later the head of the colony and U.S. consul in Haifa, probably wanted to gain U.S. political support for the colony and perhaps assistance from U.S. Government with the difficulties the colony faced with the Ottoman authorities. Schumacher’s approach of Schurz shows recognition of the latter as a potential political figure: Schurz later became Secretary of Interior in the cabinet of President Rutherford Hays (1877-1881).

In the other map by Schumacher, drawn ca. 1872, {see Ben-Artzi (1996), p. 64, 118; Sauer (1988), p. 85.}, Schumacher draws U.S. flags on the plots of the U.S. Templer settlers, and gives a long explanation in English about the “German American Colony and Mission Station”.

Maresa

In 1860, the Buffalo group headed by Schumacher attempted to form a small settlement, which they called Maresa, near Buffalo, New York. Its purpose was to create a bridgehead for prospective Templers who would immigrate to the U.S. and start off at this location. Sauer estimates that the character of this venture was to be principally agricultural, which is partly supported by the 1866 map (see p. 155), showing a farming area on most of the premises. The 1860 census indicates the Cheektowaga location, on the site of the Maresa Project.

The active figures in this venture were Adam Sorg (* Dossenheim, Württemberg, + 1901 Buffalo, New York), Jakob Friedrich Schumacher (until 1869, when he left for Haifa) and Peter Andreas Struve (left Buffalo 1873 for Haifa). Their plan was to establish in the U.S. a community of ‘Friends of Jerusalem’ similar to the Kirschenhardthof community near Marbach. They bought a tract of land near Buffalo, and after Schumacher had sold his home in Zanesville, Ohio, he moved there in February 1860.

The settlement of the purchased land commenced, and Schumacher designated chairman. Within a short time, six houses were built, and when,

341 Sauer (1991), p. 184 indicated 1870, which is inconsistent with the known date of Schumacher’s arrival at Haifa in 1869. Carmel’s dating agrees with the 1860 Census documents.
342 Probably after the biblical name Maresha, a town in the Judea Region, mentioned in the Old Testament a number of times: Micah 1:15; 2 Chronicles 11:8, 14:8, 14:9; 20:37; Joshua 15:44. In a document by Oscar Gemmer, (family collection) one of the Maresa settlers, the name appears as Marwa, in Hebrew sage, or ‘thirst quencher’.
344 Paulus (1901), p. 341. Sorg was a close associate of Struve whom he met at the coopers business in Buffalo (Ibid).
initially, there was no income at all, they decided on a communal economy, a
common table and limited communal possession of goods.\textsuperscript{345}

\textbf{Figure 32: Buffalo, 1880, by Hutchinson.}

Detail from a perspective drawing of Buffalo, 1880, drawn by Hutchinson, source: Library of Congress on-line map collection. Schumacher used the same drawing technique when he made the Haifa perspective drawing in 1877, only three years earlier.

\textsuperscript{345} Carmel (1988), pp. 1-7; Shambaugh (1988), pp. 61-62 has also described the practice of Communalism next door by the ‘Inspirationists’ until 1855 when they moved west to Iowa to form the Amana Settlements, where they continued to practice Communalism until 1935.
Map 6: Map of Buffalo, New York, 1853.

Source: map by Jonathan Sheppard Books, Albany NY, 1853, p. 43. William Street (marked with a heavy line) running SE-NW reaches the center of town. Lower left, is the Buffalo River going into Lake Erie. The last segment of the Erie Canal appears on the left (west) edge of town and connects to secondary canals, to which the Cayuga Creek is also connected. This, together with William Street, a major artery into Buffalo, may have been the decisive factor for Maresa group’s location in Cheektowaga on Lot 58, (outside this map). The location on William Street near Union Road gave easy access for the transport of products into and out of Buffalo; and even to local towns and villages, for shipment of their coopers’ products. Union Road is also a main artery that stretches from Hamburg, NY, to Amherst, NY. The Maresa craftsmen and farmers may have envisioned many customers along these routes. Marked stars, are the locations of Schumacher and Struve houses in Buffalo: from top: 182 Pine Street (Schumacher, 1866); Struve on the corner of Eagle and Walnut;\textsuperscript{346} and 526 Eagle, Schumacher’s last address in Buffalo.

\textsuperscript{346} Lange (1994), p. 73. Lange describes the spot as a meeting place for the ‘Friends of Jerusalem’ Group: “In the lower story in \textit{383 Engel} [sic, should have been \textit{Eagle}] Street in Buffalo, there was a big room, there he met others to pray together.”
In March 1862 Schumacher bought land in Cheektowaga outside Buffalo. This was part of Lot 58, in the Buffalo Creek Indian Reservation, township of Cheektowaga. The Grantor was Adam Sorg, a close associate of Schumacher.

![Figure 33: The deed: Schumacher bought part of Lot 58 in 1862.](image)

The deed signed on March 15, 1862 between Sorg (grantor) and Schumacher (grantee). Source: City of Buffalo Archive. The text mentions frequently the road inside the lot.

This was two years after Schumacher came to Buffalo and six years before he emigrated to Palestine. The *Maresa* Project was already in operation in 1860, probably by Sorg, even before Schumacher left Ohio for New York and assumed leadership over the Buffalo community. Tax assessment documents show that Sorg and the 'Moravian Society' were paying taxes on Lot 58 in 1859,

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347 This was part of the original historic 'Buffalo Creek Indian Reservation', by that time a title used only by surveyors to identify the location. The land was bought from the Indians many years before, as was the Ebenezer land next door. (Remark by J. Sambrotto, personal communication, July 2002).
so, Schumacher’s purchase of his part in Maresa may be regarded as his buying his share of the project, or sharing the losses of the project. The City Directory of Buffalo shows that purchase of Lot 58 by Schumacher was a post factum act: he had lived there, since 1860, with other Germans, and shortly after the purchase, he is to be found in another location: the house at “Delaware Street over the marble works”\textsuperscript{348} in Buffalo.

Later (1865) Schumacher bought a home at 182 Pine Street, and even later another at 526 Eagle Street, a house he sold in 1869 before emigrating to Haifa, his last known address in Buffalo. He sold the property on 17 August 1869, when he left for Haifa\textsuperscript{349}. None of these houses at these addresses exists anymore, but they place Schumacher in Maresa for no more than three years from 1860 to 1863, when the project failed.

\textsuperscript{348} Thomas’ Buffalo City Directory, 1865, p. 296. The data for this listing was compiled a year earlier. The full listing reads: “Schumacher, Jacob, architect and carver, h. ov. [over or above] Marble works, Delaware ab. [corner of] Virginia.” Thanks to Joan Sambroto from Buffalo NY.

\textsuperscript{349} These addresses and dates retrieved from Thomas’ Buffalo City Directory.
Maresa lasted only a few years; its population remaining unimpressive: the 1860 Census shows no more than 40 men, women and children in all. The next Census in 1865, showed that all the 1860 names were gone. Other Templer families existed in the area near Lot 58: Lortz and Hertzel, also on William Street, and had family ties in Tempelfeld, Kansas, and also with the Brooklyn Templer community. At least one family of the original Maresa Project remained on site after the project failed: the family of Schober, later listed as Schafer, at the same location by 1870.
Map 7: Map of Lots 58 and 10, 1892.

Detail from the Cheektowaga Map, drawn 1892. Source: Collection of Mr. R. Sonnenberg, surveyor, Buffalo. North is up. Lot 58 is in the lower ellipse; Lot 10 in the upper ellipse. The winding double line running from the upper right corner to the lower left corner is the Cayuga Creek. The “T” intersection of roads in the middle is where William Street (East-West) meets Union Street (North-South). Lot 58, specified on the map as 30 acres, is divided into two parts by William Street (today Losson Street). The northern part of Lot 58 is where the six houses were built. This map shows only three houses. The other houses had gone by the time this map was drawn, in 1882.
Lot 58, divided in two by William (today Losson) Street. The map on the left (drawn 1892) shows in the north part, the inner road mentioned in the 1862 deed, and three large structures, facing it. The southern part has most of the land, showing only a single structure. By the time the map was drawn, the northern part was owned by the 'Bellevue Land Imp. Co.', the southern part by J. Weyheiser, (German name). The map on the right, from 1866, shows six houses on the north part of Lot 58, and a dead-end road that goes half way into the lot. All the names of these house owners are new names: not belonging to settlers grouped around Schumacher and Sorg, as recorded in the 1860 Census (see below). Only one person from the 1866 map appears in the 1860 census: Nicholas Herbein, marked as “farmer”, located on the same spot in 1860 and 1866, he might have been one of the Maresa group. The 1866 map also shows that Lot 10 was in continuation of Lot 58, (see larger area image of 1866 map p. 155), suggesting that it may have been a part of the Maresa Project.

The two houses of J. Schober in the 1866 map are joined in the 1892 map, and the two houses of C. Barter in the 1866 map show as one structure in the 1892 map. That leaves one missing house in the 1892 map, probably demolished by the Bellevue Land Co.
Map 9: Cheektowaga, 1866.

Source: Buffalo City Archive. The map shows the lots and those of the homeowners. The names appearing in Lot 58 different from those in the 1860 Census, so that by 1866 all the original Maresa members have gone from the lot, except N. Herbein, a French farmer, married to a woman from Baden, who was (according to the 1860 Census) part of the Maresa group. This map shows that Herbein owned the south parts of Lots 58 and 59. (Thanks to J. Sambrotto).
<table>
<thead>
<tr>
<th>Family number</th>
<th>Names</th>
<th>Occupation</th>
<th>Real Estate / Personal Estate in US$</th>
<th>Country of Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1328</td>
<td>Shoemaker [sic] Jakob Julia Mary Gottlip [sic]</td>
<td>Stone Cutter</td>
<td>850/450</td>
<td>Germany Germany Germany Ohio</td>
</tr>
<tr>
<td>1329</td>
<td>Eitel Christian Elizabeth Charles</td>
<td>Wagon maker</td>
<td>850/500</td>
<td>Germany Germany Germany</td>
</tr>
<tr>
<td>1330</td>
<td>Fuessele Christopher Rosina Friederika Fredrick Anna</td>
<td>Potter Farmer</td>
<td>850/550</td>
<td>Germany Germany Germany Germany</td>
</tr>
<tr>
<td>1331</td>
<td>Mayer Fredrick Rochia [sic] Fredrick Anna</td>
<td>Weaver</td>
<td>850/640</td>
<td>Germany Germany Ohio Ohio</td>
</tr>
<tr>
<td>1332</td>
<td>Moteer William Wilhelmina Herman Henry</td>
<td>Mechanist</td>
<td>3850/300</td>
<td>Germany Germany Germany Germany</td>
</tr>
<tr>
<td>1333</td>
<td>Schoper [Schober] John Rosa [nee Weber] Emma Caroline Aelia Elisabeth Rosa Mary Godfrey</td>
<td>Carpenter</td>
<td>850/300</td>
<td>Baden Ittlingen, Baden Germany Germany Germany Germany Germany Germany Ohio Ohio</td>
</tr>
<tr>
<td>1334</td>
<td>Kempter Jacob Catharine</td>
<td>No occupation specified</td>
<td>850/200</td>
<td>Germany Germany</td>
</tr>
</tbody>
</table>

Total 39 persons

Table 1: Population at Maresa, based on 1860 Census.
The facts that stand out in this table are the wide range of occupations; the absence of data to support or dismiss whether this was a policy or coincidental; that all the family heads and wives were all immigrants, except the Herbeins; and that the place of birth of the second generation in the U.S. was Ohio. Anna Mayer, one of the Ohio-born children of Fredrick Mayer (Family number 1331 in the table above) was in fact born in Zanesville, Ohio where Schumacher came from; the 1865 Census locates Frederick Mayer’s family of in West Seneca, on what used to be Ebenezer land. Christian Eitle, an original Maresa settler, followed Mayer’s lead into West Seneca purchasing former Ebenezer land.

This list totals 39 persons. The range of occupations suggests an intention to form a ‘light industry park’, a group of persons living and working in the same place, and offering a variety of services to the larger community. There seems to be no indication that by 1860 there was a cooper’s workshop on premises. Perhaps had they tried to learn from and enjoy the success of the Ebenezer ‘Inspirationists’ community next door, who were also from Württemberg. But, more likely, the Templers wanted to form a training center, for prospective Templer settlers, either newcomers from Germany, or German-Americans, en route to a permanent settlement in the U.S. Other possible motives might have been the creation of a sizeable group that could collectively ‘speak louder’ and gain more recognition, make a group effort to improve the its housing conditions,

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350 Marriage license from West Seneca.
351 Cooper’s workshop, or cooperage, a manufacturing operation for wooden barrels, tubs and casks.
352 Shambaugh (1988), pp. 69-71. The ‘Inspirationists’ later left Buffalo for Iowa, because they felt the City is closing in on their community, thus changing its character.
try out new occupations and test them in the local economy, or perhaps see the entire project as a preparatory experience before leaving for Palestine, in the spirit of *Kirschenhardthof* near Stuttgart.

**The decline:** The *Maresa* venture failed, probably for economic reasons: the road on the site was too narrow, a probable indication that the entire setup was too dense, not allowing for a suitable cooper industry, and some of the persons involved indeed subsequently emigrated to Palestine. The available infrastructure was insufficiently prepared for the task which the Community had set itself, and pious feelings and fervent hopes were not enough to create a functioning communal life in the spirit of the Kingdom of God. But the narrow streets, precluding efficient communication with the market, made it impossible to compete with the big factories. After two and half years, ‘*Maresa*’ had to be given up.

Another source also reveals financial difficulties: Philipp Paulus’ obituary on one Oscar Gemmer, attests that “The Colony of Maresa was dissolved due to the lack of the necessary financial resources.” Gemmer himself, produces a written testimony regarding the Maresa failure, hinting at yet other causes, perhaps deteriorating relationships: “I do not wish to tell here the history of the colony […] there are many persons still living who can tell about it.”

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358 Paulus (1907), pp. 380-381 (translated on request by M. Higgins).
Tax assessment documents from 1859 show that Sorg owned another considerable piece of land in the same area, not far from lot 58: this was Lot 10, twice as large as Lot 58, it was about 60 acres, but dollar value much less than Lot 58, suggesting that it had no houses on it, and may have been used as farm land. The mapping of Lot 58 (from 1892, p. 154 above) shows a smaller area, about 30 acres, divided into two, by William Street, suggesting that if there were agricultural ventures associated with Maresa, they were on the southern, larger part of Lot 58, and perhaps on Lot 10. The map shows Lot 58 divided into two, by William Street, the division perhaps used by the Maresa group to separate the cooper workshops (and other trades), from the farming section on the other side of William Street. The map shows three large structures (as of 1892), and a narrow unpaved road going from William Street, north, ending at ¾ of the northern part. This is the road which is mentioned in the deed, and in Lange’s obituary. The road inside Lot 58 is the only one of its kind in the area, supporting the identification of Lot 58 as Maresa.360 The choice of Lot 58 location for such a purpose was logical: the map shows reasonable proximity to a large railroad depot, a coal loading dock, The Cayuga Creek as a waterway leading to the Buffalo River and Lake Erie, smaller unnamed streams, and of course William Street as a main transportation artery already in existence in 1860, as evident in the Buffalo 1853 Map, above. No additional deed(s) with the names of Schumacher or Sorg or Struve were found for the same time frame.

360 Lange (1994), p. 73; obituary on J. Schumacher in Die Warte des Temples, December 10, 1891, written by Friedrich Lange. There is no support in the 1860 Census that there was a cooper workshop on premises. It could have been shut down by then.
Lot 58 is marked by a circle. The map shows Cayuga Creek as equal in width to I-90, the New York State Thruway. In the lower left corner, the joining point of Cayuga Creek and the Buffalo River, which runs west to Erie Lake and the Erie Canal. The railroad lines are still there. (Thanks to J. Sambrotto, Buffalo).

Photo by J. Sambrotto, July 2002. The open ground in the foreground is the northern part of Lot 58. The far end, the southern part of the lot. Between them, Losson Street. The houses are situated on the south lot.

Photo by J. Sambrotto, July 2002. The old road mentioned in the deed, going north in the centerline of the lot. The trees at the far end are on the bank of the Cayuga Creek. There is no indication either as to the original length of the road.

Photo 50: Lot 58, looking northwest.

Photo by J. Sambrotto, July 2002. This is the northern part, the houses on the left are still on Lot 58. The road is Losson Street, running west (left) toward downtown Buffalo.

Few questions remain unanswered: Was Lot Ten a part of the Project and was it farm land? Why didn’t the Templers try to buy the land of the Ebenezer Hamlet, or, at least part of it? Perhaps because, by than, the remaining land for sale left by the 'Inspirationists' was in too small parcels for the Maresa Project. Another reason might well have been money: Ebenezer land were much more
developed and therefore more expensive. Perhaps there was also an ideological trigger: the founders of *Maresa* wanted to start something new and be credited for something they had created on their own. Why would Sorg, himself a Templer, sell Lot 58 to Schumacher if this was a community project? Did Sorg sell parts of Lot 58 to all the members of *Maresa*? Sorg was appointed treasurer and fund manager of the American ‘Friends of Jerusalem’ organization.\(^{361}\) He could have done so easily, in this capacity.

**After Maresa:** The houses of the *Maresa* group are no longer there. The historic German neighborhoods of Buffalo, where Schumacher spent his last years in the U.S., were gradually abandoned, deteriorated, and demolished between 1950s to 1970s, to be replaced by HUD (US Government agency, ‘Housing and Urban Development’) houses. The Buffalo Evening News of June 8, 1974, presents a sorry picture of William Street, “[…] derelict buildings […] too late to prevent fire or blight from ruining the remaining structures”.

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\(^{361}\) *Religiöses und Politisches Wochenblatt für das Deutsche Volk* 21, (May 21, 1863), p. 82.
Some pictures of the old buildings are on file in the Lower Lakes Marine Historical Society and the Buffalo and Erie County Historical Society archives. A few selected photos (p. 165 herein) show the architectural landscape in which Jakob Schumacher spent his last years in the U.S., and which might have influenced him as an architect.

The ‘Inspirationists’ who left Buffalo N.Y. for Iowa, forming the Amana settlements, left behind the Ebenezer community, a well-developed rural settlement. It was there when Schumacher arrived in 1860; he must have visited the site, which was within walking distance, and learned from the landscape. Below, a perspective drawing of the Ebenezer hamlet, by an unknown artist, using the same drawing technique used by Schumacher in his 1877 Haifa perspective. The road is identified as Mill Road, looking northward. The built-up area beyond the houses in the background is Cheektowaga and Gardenville where Maresa was located.
Figure 35: Lower Ebenezer Hamlet, near Buffalo, ca. 1855.

Source: Amana Heritage Society Archive. Unknown artist. The houses in the background are the Gardenville neighborhood near Cheektowaga; Most of these houses have their long dimension parallel to the street, as in the Haifa Templer Colony, and secondary smaller structures on the back side of the land parcels. Although the road is wide, there seems to be no uniform easement. In the inset a detail from the perspective drawing made by J. Schumacher in 1877 and published a year later by A. Sorg, in Buffalo, New York. The map was also submitted to the U.S. Congress, probably for the same reasons mentioned in connection to the 1873 map, also by J. Schumacher, above. The English caption reads: “Entered according to the Act of Congress, by John A. Sorg, in the Office of the Librarian of Congress at Washington.” Both drawings present the settlement as a ‘harmless peaceful colony’ with emphasis on its isolation; Ebenezer is portrayed as a rural community with mixed farming and lively construction activity, hinted at by the wooden planks in front. The geometry of the settlements is the same: a main street, being the dominant axis, dictating the grid for the layout of the houses. For Haifa, this was a true revolution: the first New Era modern settlement with a thought-out geometry. The houses in Ebenezer and Haifa are of the same size and design.

The German neighborhoods in Buffalo are also perpetuated by a photo collection, on file in the Lower Lakes Marine Historical Society. The two images from the Hare Collection show the already deserted German neighborhood in Buffalo, in the 1950s, but are expressive of the architectural landscape (below).

Left: Perry Street, as seen in 1953; right: South Park Avenue, same date.
Eagle Street in the old German neighborhood was Schumacher's last address in Buffalo. His house at 526 Eagle no longer exists, but some old houses next door were recorded (no date available).

The house on the left is 642 Eagle, built in 1868, a few doors away from 526 Eagle, and built of brick. The house on the right is located at 220 Bristol, in the same locality, and is wood frame construction. In concept, the houses are the identical, except for building technology: the entrance level above grade, a
basement, probably plastered stone masonry; four levels. Even the location of
the openings is the same, the brick building having arched openings as dictated
by this masonry technology. The fact that these houses are almost identical in
size and form, suggests that there was a ‘convention’ regarding the design and
construction of houses: rooms had to be of a certain size, so many openings per
room, the house elevated from the street level, to avoid access problems when
snow piled up in front of the house.

A Buffalo Templer community did exist after the failure of Maresa. Maresa
disintegrated on 1862, the original settlers dispersing, but several families
remained in the region, looking for a religious leadership.

Johann Gottlieb Ade (*1831 +1910) was the right person at the right time. A
Württemberger, he joined the Temple Society during its first years, was active in
the ‘Ludwigsburg Salon’, and later one of the founders of Kirschenhardthof. His
first wife, Marie nee Hoehn (who died at Kirschenhardthof), was related by
marriage to the Hoffmann and the Paulus families.362

By 1856 Ade had immigrated to the U.S., and was in Buffalo, to assist in
development of Templer communities there. With the formation of Maresa, he
joined, and became the religious leader of the community, though he may not
have resided on the Maresa premises, since there is no record of him as a
property owner in Lot 58.

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362 Paulus (1910), pp. 140-141.
Six years after he came to Buffalo, and following Maresa’s failure, Ade headed the initiative to form a new church, in Blossom N.Y. near Buffalo. The land in Blossom, was still owned by the ‘Inspirationists’, who by that time had already migrated to Iowa, two of the Ebenezer members - George Weber and Henry Meyer - having stayed on in the Buffalo area, to facilitate sale of the remaining land.

On August 1862, Ade convened a meeting in the former Ebenezer church in Blossom.363 The list of heads of families who participated in the meeting shows none of the original Maresa settlers, suggesting that the new congregation was religiously heterogeneous, some Templers, some sympathizers, possibly Württembergers from the Ebenezer community who had stayed in Buffalo.364 A few weeks later, a new congregation was formed: ‘The United Evangelical St. Paul’s Church’, with the Reverend Ade as its pastor. With Ade’s background, the teachings delivered in the church were, in all probability, Hoffmann’s ideas. The Templer community was, so it seems, revived.

St. Paul’s Church bought the Blossom Ebenezer cemetery from Weber and Mayer, and by 1864, a new church structure was built, which burnt down in 1871, and was rebuilt. Later, the church was renamed ‘St. Paul’s Evangelical Lutheran’, and still exists as ‘St. Paul’s Lutheran’; the location now known as

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364 Requires further research.
Elma, N.Y. (a few miles east of Buffalo) rather than as at the time the Inspirationists owned it, when they called it ‘Upper Ebenezer’.365

Photo 54 and Photo 55: St. Paul’s Lutheran Church, Elma, New York.

Ade was very active in the U.S. Temple Society movement, as evident in his recorded relationship with H. C. Pfalzgraf, a wealthy U.S. Templer, from Hesse, Germany, who lobbyed, together with J. Schumacher, on behalf of the Temple Society with the U.S. State Department (1881), bought the land for the Tempelfeld Community in Kansas (1885), was one of the founders of Tempelfeld, and funded the Aus Abend und Morgen, the Temple Society newspaper in the U.S., (1884), Ade being its manager and major contributor.366

Another appearance of the Templers in the Buffalo region is revealed in the 1890 Thomas Buffalo City Directory which shows “The Temple” as an active religious body, under ‘Miscellaneous Religions’, and provides its address: 364

365 More on the history of the Church in Mayer (1962), and the Church’s Internet site, http://www.stpaulsblossom.homestead.com/.
Eagle Street. The Directory lists W. Metzger as an Elder, with Sorg, Gemmer, and Seibert as Trustees.

In 1881, echoes of Maresa’s failure were still reverberating: when considering the question of further U.S. settlements, some of the Templers opposing the idea are those who remember the hardships of Maresa.368

**Buffalo’s Last Chord**

Jakob Schumacher was highly mobile, not only in the U.S.: Born in Tübingen Germany (1825), he arrived in Wheeling, Virginia (1848), moved to Zanesville, Ohio (1851), from there to Buffalo, NY (1860), and in 1869 finally left The U.S. for Haifa, where he lived until his death (1891) and was buried in the Haifa Templer Cemetery.

He was appointed U.S. consul in Haifa,369 an indication of the trust and esteem in which he was held by both the community and the authorities. Schumacher came to Palestine as a U.S. citizen,370 respected by many also outside his community; when he passed away, great numbers attended his funeral. “Never had this been seen before [in Palestine] at a funeral of a German”.371

367 *Thomas Buffalo City Directory 1890*, p. 319. Close to where Struve and Schumacher lived in Buffalo before emigrating to Palestine.
370 Smedley Hargrove (ND), p. 45.
Karl Oldorf, a joiner from Buffalo, also came to Haifa with Schumacher. Andreas Struve, a resident of Buffalo for twenty years, and much involved with the *Maresa* venture, followed in 1873, and in Haifa, established a soap and olive oil factory, exported much of its production to Buffalo.\(^{372}\) The ‘Buffalo Evening News’ reported enthusiastically about the Buffalo ex-resident now exporting quality olive-oil products to Buffalo, the city in which he had once lived.\(^{373}\)

Schumacher’s son, Gottlieb, had been born in the U.S. and was twelve years old when the family emigrated to Haifa. Educated largely in Germany, he became a key figure in the Palestine Templer community, and throughout the country, noted for his achievements in architecture, engineering and archaeology.\(^{374}\)

\(^{372}\) Lange (1994), pp. 72-74; Oliphant (1887), p. 31. Oliphant even provided an address in New York (City?) where the soap was sold.

\(^{373}\) ‘*Buffalo Folk Press Olive Oil in Palestine Colony*,’ *Buffalo Evening News*, August 30, 1923, p. 3.

The Settlement Near Gypsum – Tempelfeld

General Background

Ever since the 1880s, the State of Kansas knew a massive presence of German immigrants, “in every county and almost in every township.” Many Germans who came to Kansas were motivated by their dislike for Bismarck’s policies. The completion in 1872 of the railroad line from Atchison to the Colorado line, and the generous land grants that the railroad companies received as a result, triggered a land sale competition, resulting in very attractive prices, which were advertised in Europe and fostered immigration to these Kansas regions.

Map 11: Map of Dickinson and Saline counties in Kansas.

Source: display at the Saline County Historical Society, Salina, Kansas; image by D.G. Sep 2001. Tempelfeld is located south of road 4, between Gypsum and Carlton. The nearby city is Salina, located on the intersection of the Federal Interstate 70-US 40 and 135. This is a rural region and most of the crop is wheat. There are large military installations, and in Wichita, 80 miles to the South, there is the largest aircraft industry cluster in the country. See general map of the U.S. (p. 142 above) for the relative location of this region in Kansas.

375 Waldron (1923), p. 82.
Additionally, Germans in Russia gradually lost their privileges as preferred colonists, and, by 1874, were subjected to compulsory military service. “They were still Germans and had no intention of fighting for the Czar.”376 Many immigrated to the U.S., settling in the Midwest, Kansas being a favorite location, for its accessibility and the low cost of land. The diligence, persistence and agricultural experience of these Germans - and the wheat seeds they brought with them from Russia had helped to make Kansas “the great wheat State.”377

The Homestead Act of 1862

The Homestead Act, which became law by 1863,378 was also instrumental in the settlement dynamics of the Midwest (as well as other regions). It allowed anyone to file for a quarter section of free land, 160 acres, which would become that person’s property after five years, provided the following conditions were met: a house was built on it,379 a well bored, ten acres plowed, a specified area fenced, and that it was actually lived on. In addition, one could claim a quarter section of land if one had planted and successfully cultivated 10 acres of timber.

The Homestead Act was in effect until 1976, when it was repealed.380 It was not a total success: the better lands were taken by the railroad companies and

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376 Waldron (1923), p. 86.
378 For the law and its ramifications, see official website Homestead National Monument of America, [on-line], http://www.nps.gov/home/homestead_act.html.
379 Hughes (1998), p. 77, quoted the USNA (United States National Archives) Homestead Claim Document from August 1866, where a settler stated that he had “[…] erected a house on said land, it is built of logs, 14 ft. x 12 ft. [4.25 m x 3.6 m] in size, one story high, one window, one door, board and dirt roof, good substantial floor, and a comfortable house to live in.”
speculators who sold them to settlers who preferred these lands rather than acquire inferior lands available through the Homestead Act. This was, in all probability, the situation in Kansas when the Templers attempted the purchase in 1885. A search in the Salina Courthouse Register of Deeds Office archive reveals a transaction between H. C. Pfalzgraf as a grantee (see p. 168 above) and two grantors: in 1885 Pfalzgraf bought from one Henry Rees eight quarters (1280 acres), and in 1889, more land from the Union Pacific Railroad, another eight quarters.  

It was also Germans from Russia, who colonized Russell County, less than 100 miles west of Gypsum in the 1870s, settling along the banks of Landon Creek. Here they began the construction of dugouts and sod houses, a pattern followed in Tempelfeld, when the settlers came in 1885, as related by Mrs. E. Thiel, the oldest Templer descendent in Gypsum. Interviewed in 2001, Mrs. Thiel (in her late nineties then) related the stories told by her father, one of the first settlers. Also in Marion County, 30 miles south of Gypsum, the settlers built dugouts and sod houses, with, according to Waldron (1923), shutters made of willow.

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381 Numerical index, Section 13, Township 16, Range 1, Saline county Kansas. March 31, 1884: recorded in Book 3, page 442; November 12, 1889: recorded in Book 13, page 631. Many thanks to P. Graf.
382 Waldron (1923), p. 91.
383 Waldron (1923), p. 94.
Dugouts are single-space units excavated in a sloping topography, usually the bank of a stream that take advantage of excavated space as walls or parts of walls. Walls were built of sod block, roofs of simple timber ‘post and beam’ construction, the roofing material was also made of sod blocks, laid on simple wooden substructures similar to that described by Ragette (1974), and others, except for sod, the roofing material. Sod is appropriate for this sort of construction since the clay substance helps waterproof, and the roots inside the

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384 Ben-Arieh (1976), p. 26, describes the Yemenite Jews in Silwaan building the first houses during the early 1880s, on the slope of the Kidron Creek, “[…] where the exposed rock serves as the fourth wall.” There was hardly a connection between the sod houses in Kansas and the Kidron houses, but this seems a solution for situations where means were limited and topography permitted it.

sod act as reinforcing agents, especially when the sod has not dried out and the roots are still active, growing from one sod block to another.

In Palestine, at exactly the same time (1885), Jewish settlers in the newly formed colony of Gederah, also made a dugout, establishing claims on structures, which had to be built and roofed overnight so Ottoman officials would not tear it down. This was not, however, a pattern, as it was in Kansas and other U.S. locations. In Kansas the permanent dwellings were deferred in favor of establishing operable farming enterprises.

Gypsum, Kansas

*The Town* Gypsum, Kansas, is a small town of a few hundred families in Saline County. It has not changed much in the last 100 years, as these images (below) show.

![Photo 59 and Photo 60: Gypsum, Kansas, 1900s and 2000.](image)

Left: Maple Avenue, the main street on Gypsum ca. 1900. Source: Wichita State University Library Special Collections. A same photo taken on August 2000 (right), shows nearly the same character, even the same houses. The electricity poles have been changed, the power lines are underground, and the street is paved, the only paved road in Gypsum at the time the photo was taken.

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387 Compare to Thalmann (1991), p. 133, the priority to farming infrastructure over the dwellings, in Betlehem’s first years of settlement.
The old buildings are built of brick. There are no limestone quarries in the region. There is only one stone building, the rest of the masonry structures is brick, a very common construction component in the region. The German settlers used brick not only for houses, but also for larger structures, such as this multi-storey flour mill (see below) built in Gypsum by the end of the 19th Century.

Photo 61: Old brick masonry in Gypsum.
Photo: August 2000. These are bearing walls thick enough to sustain one storey and a wooden roof substructure. The photo shows two types of brick of differing shades, suggesting imported brick from at least two different sources.

Photo 62: Gypsum flourmill.
Photo: August 2000. Built by Germans, according to locals, it was made entirely of fired clay brick.

By the time the Templers settled Tempelfeld, the Missouri-Pacific railroad line was already in operation, allowing for the transportation of building materials. This is how dimensional lumber reached Tempelfeld; timber was abundant in Kansas, but dimensional quality hardwood for professional construction had to be brought in.

Waldron (1923), p. 84.
The only stone masonry building in Gypsum is the ‘Tinkler Bros. Store’ built in 1886. Tinkler, a German name, does not show up on any local list of Templer names. In a drawing in the Official State Atlas of Kansas (below, right), the building appears as all-stone masonry however it has been stucco’ed and remodeled over the years, the ground floor changed with stone tiles cladding and the windows altered.

There are no half-timbering structures in Gypsum, although southwest German settlers used this technology in the 1830s and 1840s around the Great Lakes region, including Wisconsin, Missouri, Ohio and Texas.\textsuperscript{389}

\textsuperscript{389} Tishler (1986), p. 280.
**Templelfeld, Kansas**

**General Description:** The landscape of the Tempelfeld area just outside Gypsum is characterized by flat hills with small creeks, unpaved dirt roads and large tracts of agricultural farming land. Usually there would be no trees on this farming land, and tree concentrations be found only next to farms buildings and creeks.

![Photo 64: Tempelfeld, Kansas.](image)

Photos: August 2000.

**The Settlement:** The Tempelfeld community joined the general map of the ‘Russian’ Germans and other Germans who colonized Kansas, perhaps attracted to the area for the same reasons other settlers were, and by the fact that Kansas was already dotted with German-originated villages. Members of the Buffalo – Schenectady area made an attempt to create a rural settlement, this time further away from the East Coast, in Gypsum, Kansas. Lange (1899) describes how Melbert, an active Templer from the East Coast was trying to initiate this move.\(^{390}\) A large number of people from Württemberg also joined the

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\(^{390}\) Lange (1899), p. 824.
enterprise: Temple Cemetery records show that at least 21 Germans were buried in Tempelfeld, most of them from Württemberg, some from Switzerland, some from other regions in Germany, like Baden and Hesse.\footnote{Interments Records, (1985), pp. 212-217.} In 1884-85, this group succeeded in acquiring a large tract of land between Gypsum and Carlton. (See the Pfalzgraf transactions above, p. 173). This time, in contrast to the Maresa venture, they were able to establish a community, which was to be the longest-lasting U.S. Templer settlement.

They called it ‘\textit{Tempelfeld}'. The leading persons involved in this endeavor were Pfalzgraf, Melbert, Schwarz, Muench and Fink.\footnote{Wurst, Philipp, \textit{Obituary, Rev. Fred C. Fink}, in: Warte 10/38 (May 31, 1938), p. 5 f.} Fink came from Schenectady, New York, but had been educated in Jerusalem in the \textit{Lyzeum}.

\footnote{\textit{Interments Records}, (1985), p. 214.}
\footnote{\textit{Interments Records}, (1985), p. 212-217. See Appendix B p. 557, Migration and Genealogical Indications, based on the above.}
Pfalzgraf, who came from New York City, had even undertaken a trip to Germany to recruit German Templers for Gypsum, evidently with minimal success. He was to die in Brooklyn, NY, in 1909.\textsuperscript{394} Schwarz hailed from

Württemberg, Melbert came from Baltimore, Maryland, where he had helped form a small Templer community. Sauer (1991) quotes J. G. Schanz who visited Tempelfeld in 1906 and reported in the *Warte* that “[…] in Tempelfeld […] [there is] very active community life.” Schanz became the chairman at Tempelfeld from 1906 until 1926, when he emigrated to Palestine, settling in Wilhelma, where he died in 1931.

*Life in Tempelfeld:* In a letter to the editor of *Aus Abend und Morgen*, later published in the *Warte* (No. 45, dated November 8, 1906), J. G. Schanz reports on the spiritual and educational activities of the community. From this report, we learn that there were active members of the community not only in Tempelfeld, outside of Gypsum, but also in the town of Gypsum itself:

On Sunday in the morning from 10 – 11, we have Sunday school. The number of those attending is about 50 - 60 […] From 11 to 12 we have our service and it has been well attended up to now. On Sunday evening the mixed choir comes together with about fifteen singers […] every fourteen days we hold an assembly in Gypsum on a Sunday afternoon in the house of brother Schuberth, as the brothers who live there are not all in a position to drive the five miles to the chapel […] On Monday and Thursday in the morning I give German lessons to children of the community; up to now there are eighteen of them […] On Monday and Thursday afternoon I give

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395 Otto Laemmle, in reporting about his visit to Gypsum in 1987, mentions Schwarz as one of the founders of the Tempelfeld community, along with four other families. Source: Report by Otto Laemmle, typed, filed at the TGD Archive, Stuttgart.


397 Sauer (1991), p. 186, quoting the *Warte* 1931 p. 48; *German Cemeteries* (1974), p. 59. Schanz’ name is registered in the Wilhelma Cemetery chapter, but not in the Jerusalem Cemetery where the Wilhelma dead were re-interred.
German lessons in Gypsum, up to now there are about sixteen in the class.\textsuperscript{398}

They took great pride in their choir and band. Like Templer communities in Palestine,\textsuperscript{399} already in the early years of their existence, they have formed a choir and a band, “[…] as an essential part of [the] plans for the future, and as an outlet for the talent and religious zeal of their younger people.”\textsuperscript{400}

\textbf{Photo 66: The Tempelfeld Band, 1890s.}


The writer, who based her report on interviews with the members of Tempelfeld, wrote that she had found (in 1956) “[…] a thriving rural community

\textsuperscript{399} Sauer (1991), pp. 166-167, describing a range of clubs and cultural activities in the colonies, “[…] which went beyond everyday life and occupation.”
\textsuperscript{400} Long (1956), p. 3.
church [...] the only one of its sect remaining in the United States [...]”\textsuperscript{401} A few years later, in October 1961, the presiding Pastor, J. Griffith describes the band which Rev. Fink organized in the first years of the community.\textsuperscript{402}

On August 2001 I interviewed Mrs. Elsie Thiel, the oldest Templer descendent in Gypsum, Kansas.\textsuperscript{403} In a long and open interview, she told me that the settlement pattern in Gypsum was the same as in all other German villages in Kansas: first the men constructed dugouts and sod houses, and only after the agricultural venture became viable, did they permit themselves to build permanent homes. The settlement itself was a collection of dispersed farms, each consisting of a single house on a large tract, sometimes the house would have a number of service structures next to it.

The settlement form is similar to what was known in Württemberg as \textit{Einzelhof}, namely single-family ‘stand-alone’ farm complex, quite far away from

\textsuperscript{401} Long (1956), p. 3.
\textsuperscript{402} Griffith (1961), p. 3; Wurst (1938), p. 5.
\textsuperscript{403} Interview facilitated by Ms. P. Graf from Salina, Kansas, to whom I am thankful.
each other, creating a community that lacked coherence and a continuous sense of settlement.\footnote{Ben-Artzi (1996), p. 70.} The Saal and adjacent cemetery were the main expressions of community life, while Gypsum, the town next door, served Tempelfeld as a regional center and some Tempelfeld people, like Mr. Ade, had their businesses there, run in specially-built structures for this purpose (below).

![Ade's business in Gypsum.](image)

Photo 68: Ade’s business in Gypsum.

Photo: August 2000. Like many other building in Gypsum this is a brick building, dated by locals to the late 1890s. In 2000, the business was closed and seemed not to be operating.

Recently, agricultural activity has been concentrated in wheat, dairy and cattle farming. Laemmle (1987) described the active farm of the Thiel family, (his relatives) as consisting among other things, of about 1500 acres pastureland [his estimate], with “native grass”, and a hundred cows with calves in a closed perimeter. Dams provided water for the cattle, and the “native grass” was neither sown nor fertilized. Around Gypsum, Laemmle noted fields of wheat and sorghum, used to feed the cattle.\footnote{Laemmle (1987), p. 4.}
The Tempelfeld Church: On August 2001 I visited the Church and cemetery, accompanied by Ms. P. Graf, (German immigrant descent, and a resident of the region, she is a genealogist from Saline County). The term ‘Church’ is used here generically, it is what the Gypsum locals call the building now, although the first settlers regarded it as a ‘Saal’ or ‘community center’, and stripped it of any characteristics of a traditional church, as is clear from the photo of the building, (see p. 186). The Church and cemetery are located on the highest elevation in the ‘Tempelfeld’ area, (compare with the Sarona setup, p. 247) and the sign next to the Church reads ‘Temple Church, Jesus is Lord’, and announces the Sunday worship and Sunday school hours.

Photo 69 and Photo 70: Gypsum, signs next to and on the Church.

Photo: August 2001. The Temple Cemetery is Behind the sign. Below, the commemoration plaque for the old building on the Church wall.

Source: U.S. Natural Resources Conservation Service, dated 2001. North is up. Church grounds premises are marked in a rectangle east of the road, next to the center of the image. The text next to the rectangle reads “Temple Society Trustees 2.2 AC [acres].”

In the upper inset, a ground level photo of the church. The long side of the rectangle is 404 feet (123 m). The rectangle at the lower edge is a single farm, which is marked 8.9 acres. In the lower inset, a ground level photo of the same farm. West of it, the winding dark body is vegetation along the stream. The image gives a true sense of the isolation of the farms, the next farm is a few hundred meters away.

The church building was built in 1972, replacing the old Church structure - built 1886. Otto Laemmle,406 reports a visit to the church in 1987, and details its layout and construction make-up.407

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406 Otto Laemmle was the son of George Laemmle, one of the early settlers in Sarona.
Photo 72: Old Church, School and Minister’s house, Tempelfeld.

Source: Mrs. Thiel’s photo collection. The large structure on the left is the Church, the house in the center is the School Building, and the house on the right is the Pastor’s quarters. The Church structure is very plain. Only its height and size imply its public function; it has two entrances, the one on the school side is roofed. All three structures are wood frame construction, the chimneys built of brick.

A later photograph of the church (below) shows an entrance anteroom, lower than the main structure. This photo makes it possible to label the building as a gabled frame with milled lumber siding. The roofing material is sawn wood shingles, with a metal ridge flashing which, so local architects say was customary with wood shingles and terne roofing.408

Photo 73 and Photo 74: left, Old Tempelfeld Church, 1890s, right, Old Boronia Temple, 1956.

Source: Left Thiel family photo collection; right: photo by E. Mendelovitz, January 2000, in cooperation with Dr. Rolf Beilharz, Melbourne.

408 Terne roofing is actually plate alloys which are 75% tin and 25% lead, and was common in the region. There are still houses in Gypsum with terne roofing, in perfect condition, from the 1880s. [Source: Huntington (1967), p. 45, 578]. Thanks to Craig Patterson, AIA, and Edgar Boles, AIA.
One cannot escape the inevitable comparison with the Templers’ Saal in Boronia near Melbourne: the same modesty and simplicity, and about the same dimensions. The Boronia Saal was built in 1956, about seventy years later, by volunteers from the local Templer Community,\(^\text{409}\) and is “the oldest Templer building in Melbourne”.\(^\text{410}\) However, it is made of concrete blocks, and roofed with corrugated metal sheets. The tower with the cross on top, not a traditional Templer characteristic, was added on later in the 1960s.

Another photo of the Church shows yet more improvements as the community grew and the building needed to respond to more functions.

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Photo 75: Tempelfeld Old Church, 1936.

Source: Thiel Family Collection. This photo was taken on the occasion of the Dankfest Celebration October 1936, 50th anniversary of the Church.

The photo also indicates the size of the community: roughly 100 adults and about the same number of children. The occasion was the 50th anniversary of the Church; despite the occasion, no attempt was made to change the humble

\(^\text{409}\) Alfred Klink, Melbourne, personal communication, July 13, 2002.

\(^\text{410}\) Rolf Beilharz, Melbourne, personal communication, January 2000.
character of the structure: the only ornaments are the metal ridge and the decorative crown lintels above the windows, both imported elements.

The Old houses of Tempelfeld: None of the old Tempelfeld houses exist any longer. The dugouts and sod houses are also gone, and the wood frame construction houses now in use by Templers descendents are relatively new (below).

![Photo 76: Contemporary houses, Gypsum - Tempelfeld, 2001.](image)

Photos: August 2001. The house on the right is Mrs. Thiel’s house, built ca. 1960. These are milled lumber wood frame structures, usually one storey high, with a basement.

These are milled lumber wood frame structures, usually one storey high, with basements. Most houses have storm shelters, either directly under the house or underground next to the house, either of reinforced concrete or stone. Access to the shelters is usually from the outside. Most houses have water cisterns, connected to the house pipes system with a pressure tank.\(^\text{411}\) There is actually no identifiable typical characteristic for classifying these houses. Millions of houses like these were built throughout the Midwest after World War I, and many were expanded with additions over the years.

\(^\text{411}\) Based on the interview with Mrs. Thiel August 2001, and other locals.
The old photograph with the houses next to the Old Church (below) make possible a few pertinent generalizations regarding the building technology used by the first settlers. The roof is made of terne, a common roofing material in the 1880s in the region. The larger house (the school, on left) has a flat segment instead of a ridge, possible only with terne roofing.

Photo 77: School and Minister's quarters, Tempelfeld, 1880s.
The proximity of the functions was common also in the Templer communities in Palestine: The Saal, the school, and the teacher’s quarters all in the same complex.

This technology is long-lasting, and in Gypsum a number of buildings built this way in the 1880s still stand in perfect condition. The two houses in the photograph have brick chimneys, structures of wood frame. The schoolhouse has only two rooms and an outhouse to its left, probably used also by residents in the Minister’s home, to the right. The Minister’s home has an extension on the back-side, probably the kitchen. There is no evidence of a basement level, and if there was a cistern, it was not fed from downspouts, (no gutters or downspouts are visible), but rather from a well, or some other means of water transportation; both houses have milled lumber siding, raised entrances with three steps to the

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main door, with wooden frames around the openings, frames that are necessary with this kind of siding.

All these elements exist in the houses of the town Gypsum, including the rare terne roofing.

![Photo 78: Houses in Gypsum, summer 2000.](image)

Photos: August 2000. These are old houses, from the 1880s, but very well maintained. Both have terne roofs; the house on the left is a wood frame construction, the house on the right is brick masonry. The couple living in this house was very proud of the “tin roof” and spends much of their time caring for the historic home.

Above, two examples of old houses in Gypsum, dating back to the 1880s, that contain most of these architectural elements. The house on the left has the flat roof segment similar to the old Tempelfeld schoolhouse (below). This is the same detail, and from the same time frame. On the right, the same low pitch hip roof in Gypsum is echoed in the hipped roof in the old Minister’s house in Tempelfeld. Hip roofs are less common in the region. These details are to be found also in houses which are not German or of Templer origin.
The builders of the Gypsum and Tempelfeld houses put a lot of thought into the roofs they made, and this for two reasons: (a) the seasonal strong winds, tornadoes, and even heavy rain which limited the use of the shingles or roof tiles, that might have become chronic maintenance problem; (b) the shape of the roof is was instrumental in determining the shape and character of the house.\(^{413}\)

While in Gypsum, the houses were bigger and more sophisticated, their counterparts in Tempelfeld were much humble and simple, not only for reasons of cost, but perhaps also because the Templers in Tempelfeld regarded it as being compatible with rural life style. The same comparison can be made with the Templers in Palestine: those who built in Haifa next to the urban neighborhoods, built more complex and elaborate designs, while those who built in remote and more isolated colonies, (e.g. Waldheim and Wilhelma), built with more restraint and modesty. The question of the compatibility of Templer houses

\(^{413}\) McAlester (1992), p. 42; Nelson (1988), p. 4, has identified the roof as one of the most important visual characteristics of the house.
to other houses in their vicinity is interesting: if in Tempelfeld, this was not a consideration, in Palestine it certainly was. The first houses the Templers built in Eretz-Israel were of a totally different quality from what had been known in the country up until then. Not only in terms of settlement design, but also in terms of the individual houses, which were considered at the time to be unprecedented, and highly praised by the Jewish population.414

Some old wood frame structures are still located, (see below), near the Church, albeit in deteriorated condition, which locals date to the 1900s.

Below, an unknown settler’s house in Tempelfeld, a gabled wood frame building with milled lumber siding, the same as the old Church building. It was not possible to identify the house with the remains of the wooden structure as seen above. From the photo below, it is difficult to determine the roofing material, perhaps sawn wood shingles. The house has two chimneys, suggesting that one

was used for heating, the other for airing the cooking area. The porch in front is perhaps a later addition, and roofed by a simple wooden structure, with four posts, made of milled timber, elaborately designed, and clearly showing the use of a lathe. These might have been imported from outside the region. The porch is floored with hardwood planks, raised above grade and matching the floor level inside. The large window on the upper floor suggests uses other than storage: perhaps another bedroom; the large window has a little pediment above it, as does the main door, the only exterior ornamental elements.
Figure 38: Probable ground floor plan.
Drawing: July 2002.

Figure 39: Plan of a house in Heilbronn, southwest Germany.
Source: Bedal (2001), p. 103. The layout is the same, and was common throughout Germany in the 18th and 19th centuries.

Above, a probable floor plan. Its elements: 1. Entrance door in the center on the short side. A roofed porch, serving as a mediator between outside and inside, protecting the entrance.\textsuperscript{415} 2. Steep stairs to a second level; one alternative would be a ladder. 3. Kitchen, with access to the backyard, normally the location of an outhouse and other domestic facilities, perhaps a well and hand pump. 4. and 5. The fired brick chimneys.\textsuperscript{416} The placement of the chimneys is ‘interior slope’, i.e. they would be located away from the roof ridge and exterior walls. Fired brick was the preferred material for chimney construction, compared to stone, which was barely available, or wood and clay

\textsuperscript{415} See McAlester (1992), p. 52 for detailed discussion and development of porches in U.S. Architecture.
\textsuperscript{416} See McAlester (1992), p. 50 for detailed discussion.
that were also used but demanded constant maintenance. There were two chimneys, one for heating and one for cooking; the heating fireplace was cleverly located in the center of the house for optimal heat distribution. The simple rectangular plan allows for reduction of exterior wall surface, thus increasing energy efficiency, and reducing the size of the structural elements. 6. Bedrooms, each with two windows, and a door opening to a central space. 7. An all-purpose room, for dining and other family functions, directly connected to the kitchen.

The distribution of walls shows an effective way of supporting the second level floor, with beams no longer than 3 m. (about 10 ft.). The house in general is very simple; it gives an impression of precision and quality work; the front façade is symmetrical, the windows are large in order to allow in as much daylight as possible so as to reduce the use of other means of lighting, at the expense of energy efficiency.

**The Change and Decline**

World War I, and later World War II, brought about anti-German sentiments throughout the U.S., the main reason behind the disintegration of Templer Communities, leaving only two active ones (Schenectady and Gypsum-Tempelfeld). The members of Tempelfeld stopped using that German name, replacing it with ‘Gypsum’. Gradually, even the language used in the Saal changed to English. Church records show that on May 1943, “it was decided

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417 Electricity had reached Tempelfeld only in the 1940s (!) according to church records, in Church Records Book 1886-1961. (Thanks to P. Graf.)
to buy six English Bibles, and see about the price of American and Christian flags for the Church.  

Andelson (1984) reported a very similar process in the Amana settlements of Iowa.

George Schanz, the Gypsum Pastor and community leader since 1906, left for Palestine, settling in Wilhelma, where he died in 1931. With his departure, the Community lost its Templer character: “After our Pastor left for Palestine in 1926 we were unable to replace him in the Church here […] we are no longer a German community as such, the original organization is no longer in existence.”

In the summer of 2001 I met a number of Templer descendents in Gypsum, who - like Mrs. Thiel and Mr. Krauss - were aware of their Templer heritage, and frequented the church in Gypsum called ‘Temple Church’, but no Temple Society teachings were being practiced, and no denomination for the Church was labeled.

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419 Minutes of annual meeting, held May 25th, 1943. Source: Smoky Valley Genealogical Society, Saline, Kansas.
422 In a letter dated January 2001 from Elsie Thiel to Mr. Prokschi (?) on file in the TGD Archive in Stuttgart, (Thanks to Martin Higgins).
Chapter 5:
Templer Architecture in Eretz-Israel
Observations and Analysis

An Architectural Perspective

This section is based on fieldwork carried out between 2000 and 2003. Each German Colony is dealt with in terms of its specific characteristics, following a matrix discussed in the Methodology section of the Introduction, p. 18.

The following map describes the distribution of German settlements in Eretz-Israel, and includes small-scale settlement episodes, sometimes a single family or a limited number of persons, in locations which have not developed into full-sale settlements. The map clearly shows two strips of settlement, stretching from west to east, the west node being a seaport.

The northern strip includes Haifa, Betlehem, Waldheim as settlements, and additional small locations. The southern strip includes Jaffa, Sarona, Wilhelma and Jerusalem. The map also indicates the nature of the colonies, rural or urban.
**Haifa Colony**

Map 14: Haifa, mapped 2000.

Source: Nur (2000), p. 12. At the time the Templers arrived, the population was 4000. Today it is 250,000. Circled from north down: The (main) German Haifa (Templer) Colony, Karmelheim, and the Neuhardthof farm.

**Local General Background:** The Haifa Colony was the first, and largest. Carmel (1990) and Ben-Artzi (1996) describe in detail the early years, the planners and the decision-making process involved in its formation.\(^{423}\) The first house was built in 1869, to be followed by many others, actually marking a built-up concentration, which drew urban patterns from the Arab population on both sides of the Colony.\(^{424}\) Haifa was blessed with good weather, availability of land, had a German consular representative in town, a potential for economic and therefore physical growth, and a port, providing trade and passenger links with

Europe; all these were considerations which made the Templers prefer Haifa over Nazareth, their initial choice of location.425

**Haifa Settlement Design: The planning of the colony** reflects the thorough consideration given to the site conditions: topographical, wind direction, location and types of terrain around the site, main routes and, of course, the location of the port. The Schumacher drawing from 1877 (see Ben-Artzi (1996), near p. 64) shows the differentiation between farmers, industrialists, and winegrowers. This was the first time in Palestine that a new settlement, or any settlement for that matter, was designed by a professional planner. There were wide straight-line streets, a hierarchy of a main and secondary streets, easements, and order. Scholars of Haifa history differ in determining just who the planners were; Carmel (1990) suggested it was Hardegg, who took over the responsibility for managing the Haifa Colony, and Jakob Schumacher.426 Arensberg (1988) also credits Hardegg for the erection of their first colony;427 Ben-Artzi (1996) gives credit for the plan to Hardegg and the first settlers of the colony, who may have consulted Schumacher, who was already an experienced planner, from his years in the U.S., and perhaps also Loytved, the Danish architect, who was Hardegg’s son-in-law.428 The only contemporary source is provided by the **Süddeutsche Warte**, 425 Carmel (1977), pp. 113 and 116-117; Goren (1987), p. 269; Carmel (1990), pp. 19-20; Goren (1989), p. 100; Sauer (1991), p. 48.


writing in 1869 about “a plan drawn by Hardegg, which was found suitable for the 
[settlers] requirements.”

Map 15: Haifa Templer Colony and vicinity, street map.
Source: Goren (1998), p. 68. The straight-line street from the lower left to the upper right is 
the Colony’s main street (southwest to northeast), now named Ben-Gurion Boulevard. 
Most adjacent streets follow the grid which this street created. The distance from the 
roundabout to the northern T intersection of Ben-Gurion is 880 meters (2900 ft.).

Photo 85: German Colony, Haifa, 1990s.
Source: Tal (1997), p. 73. The main street is Ben-Gurion Boulevard; the intersection at the 
bottom is Allenby Street. At the far end, Haifa harbor.

By 1875, the colony was inhabited by 311 persons, owned more than 3000 
dunams (74 acres), 250 cattle, and contained 85 structures. Being the largest 
Templer community, and very influential in Haifa, the colony produced two

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429 Süddeutsche Warte 31, August 5, 1869, p. 122; J. Schumacher’s granddaughter, Nelly Marcinkowsky-Schumacher, 
mentions twice in her book (1994), pp. 8, 44, that J. Schumacher planned the colony on instructions from Hardegg.
satellites: *Neuhardthof* and *Karmelheim*. These did not achieve the size of the mother colony; *Neuhardthof* abandoned in later years, and *Karmelheim* bought off by the Jewish settlers of Haifa in 1920.\(^{431}\)

*Neuhardthof* was formed on land which the Templers acquired in the early years of the Haifa settlement,\(^{432}\) also close to the Mediterranean coastline, a few miles south of the Colony.

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**Map 16: Neuhardthof and Tireh, 1912.**

Source: University of Texas Library on-line Map Collection. The map was drawn in 1912 by ‘Wagner and Debes, Leipzig’, but drawn in a ‘Sandel graphic style’, although the spelling ‘Templar’ next the name is wrong, and can not be attributed to Sandel. The map shows the four structures of the farm, a secondary road leading off the main coastal road to it, a well, half a mile north of it, and the Arab village *Et-Tireh* (Tirah) about three miles south.

It was a considerable tract of land: some 3000 dunams (741 acres).\(^{433}\) The first building was built in 1897, three more built between 1897 to 1899;\(^{434}\)

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\(^{431}\) Carmel (1977), p. 135; Bein (1971), p. 197. Ruppin bought the lands in 1922, and was so impressed, that he wrote in his diary that he wanted to buy the Keller Grove privately to build himself a summer home.

\(^{432}\) Ben-Artzi (1982), p. 175, estimated the start of the outpost “in the early 1870s.”


\(^{434}\) Carmel (1990), p. 61.
however, only one of the four structures remains. The entire project was considered an agricultural outpost for the Haifa Colony; but it became clear to the fifteen cooperative members, that on-site residency was essential to protect their property and crops: the locals from neighboring Tireh representing a security problem. Three more buildings were built, and Templers moved in (1898) to establish a presence. The tension with the Tireh neighbors finally erupted in the killing of a Tireh intruder, and a Templer settler, Fritz Unger (1910). The Templers gave up the project and leased it out to locals. The spot later was settled by Jews (1918) who also abandoned it. Today the only remaining building is within the boundaries of an industrial complex.435

Photo 86 and Photo 87: Neuhardthof, the only remaining structure.
Photos: April 2000. (Many thanks to Khishulei Carmel PR department). The single storey building had a shallow basement, probably because the water table is close to the surface in this area; a flat roof. The stone used is soft limestone (kurkar) mined locally. The stucco was applied for waterproofing and to hide inaccuracies of the stonework. The removed stucco shows use of rubble stone for the basement level, and large stones for the main floor.

_Karmelheim_ came later, directly reflecting the success of the Templers community. Establishment of the neighborhood was made possible following a long and bitter land-rights struggle between the Templers and the Carmelite

monastery, concluded by 1887. Some of the houses were the second houses of Templers who already owned houses in the Old Colony. The first was Keller’s, the German Consul in Haifa; other buildings, included a sanatorium, a hotel, the Gottlieb Schumacher House plus a dozen more structures.

In her memoirs, Marcinkowski-Schumacher (1994), tells us about her family’s house in Karmelheim. Designed by her father Gottlieb Schumacher (*1857 +1925), Jakob’s son, it stood on a large lot of 6000 Sqm (about 1.5 acres) containing several structures. It was demolished in 1968.

The only remaining Templer structures in Karmelheim are the Keller House, the Aimann Complex, and the Pross Hotel. The first two are located on what

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today is Keller Street, (numbers 2 and 6), and Hotel Pross is located in an old pine grove, planted by Keller.\textsuperscript{439}

Most of the German property in Karmelheim was bought by Arthur Ruppin on April 1922,\textsuperscript{440} in an effort to annex the land to the already Jewish-owned land around it.\textsuperscript{441}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{Keller’s guesthouse, Karmelheim.}
\justify
The main structure was demolished. Today this building houses the Schumacher Institute for Research of the Christian World in the Holy Land in the 19th Century.
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{Keller’s guesthouse, wood construction detail.}
\justify
Photo: October 2002. The high-quality construction remains intact, and has been preserved as a historic building.
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{Karmelheim, Haifa, the Aimann Complex.}
\justify
Photos: October 2002. A farming and guest facility enterprise on the Carmel. The complex was encircled with a stone wall.
\end{figure}

\textsuperscript{439} Bein (1971), p. 197. Ruppin even provided a date for the plantings by Keller: 1882.
\textsuperscript{440} Dr. Arthur Ruppin (*1876 Germany +1943 Jerusalem), sociologist, mobilized by the Jewish Agency to promote Jewish immigration and settlement in Palestine. Known for land acquisitions throughout the country and facilitating new Jewish settlements.
\textsuperscript{441} Bein (1971), p. 197.
Photo 92, Photo 93 and Photo 94: Haifa, Karmelheim, Pross Hotel.
Photos: October 2002. Recently rehabilitated, the structure still retains its modest yet splendid appearance: the hand-made stone balustrades, the Italian marble floor tiles, the skillfully crafted doors, windows and stairs. The building is used now for public functions by the Haifa municipality.

**General Architectural Expressions, Haifa Colony:** on the settlement scale, these are its main characteristics.

► The first houses built by the Templers in Eretz-Israel, which provided a norm for the other colonies as described herein.

► The transformation in character from rural to modern urban, as expressed in the built landscapes density, house design, and changes in land use. Later houses, were aligned with the sidewalk, with no buffer between street and houses, the ground floor designated as commercial / stores space.

► Emergence of apartment houses, as land values increased and land availability decreased.

► Emergence of the Satellite settlements *Karmelheim* and *Neuhardthof*.

► The addition of non-functional elements as an expression of affluence and as ‘cultural separators’.
The two houses documented below are typical of the ‘first wave’

construction convention:

Photo 95 and Photo 96: Haifa, the Struve houses and a house on Jaffa Street.

Photos: November 2001 and October 2002. The two houses are very similar in façade design, and perhaps designed by the same architect. The Struve house started as a single storey flat roof house but was changed by addition of the second floor and the attic; this is evident from the different exterior treatment of the upper floors. The balcony is located over the entrance, keeping with the symmetry of the façade. Both houses use soft limestone blocks, an abundant local material, and the “I” beams for the projecting balcony. These contain many of the basic visuals of the first houses: four levels, two-slope low pitch gable roof, stone chimney and gutters, belt courses, wooden shutters; the gate, accentuated by side stone posts. Both houses already use the prefab concrete openings lintels and avoid the stone arches. The house on Jaffa Street uses full length “I” beams that span the entire floor area and need no braces as in the Struve house. The additions to that house were done on the backside of the entrance level floor.

There is also a difference in the gable roof: the house on Jaffa Street has stone gutters and stone coping for the gable; the Struve House has the slopes overhanging the side wall and drains with a zinc gutter; this might have been a replacement of the original roof.

Aspects of Change, its Architectural Expressions and its Cultural Implications

Implications: The Haifa Colony started out as a rural settlement, slowly changing its character to an urban neighborhood,\(^{442}\) as reflected so vividly in the documents of the Haifa Templer architects Weller and Ruff.\(^ {443}\) The reason was twofold: a change in the nature of the Templers’ economic interests, and changes in the town around them; many Templers became vendors, merchants,

\(^{442}\) Carmel (1977), pp. 116-122.
\(^{443}\) Ruff studied Architecture in Karlsruhe, graduated in 1932 and returned to Haifa.
 artisans, industrialists, and free professionals. Haifa itself, as a larger community, nourished by the prosperity and momentum the Templers contributed, helped trigger and create a need for such services.

Active factors in the transition of the Germans from agriculture to service, commerce and industry, were:

1. The land of the Haifa colony was not suitable for agriculture.

2. With the urban development came a sharp rise in land costs, tempting many Germans to sell lands.

3. The increasing potential in industry and commerce, which made many Germans wealthy was a determining factor especially on the younger Templer generation, who possessed less ideological motivation than their parents.444

Thalmann described a similar process in other Templer Colonies: Jaffa and Jerusalem.445 An apparent link between the rapid development of Haifa and operation of the Hejaz Railway (1905),446 which made Haifa a crossroad for goods, and the improving in shipping which affected the development of Haifa harbor and, as a result, the entire town.447

444 Carmel (1977), p. 121.
446 Carmel (1977), pp. 149-159, an extensive analysis of the impact the Hejaz Railway on Haifa.
This transformation in the character of the colony, as the largest and most developed and reputable, reflects an architecture sharply turned to modernism, and for which there was a demand that the Templers could supply. Their ranks included capable architects, joiners, builders and importers of building materials, and could build and design not only for themselves, but also for the rapidly growing Arab (and perhaps Jewish) sectors of Haifa. Experienced architects were imported from abroad, and Templer architects competed with elaborate designs. For instance, Oscar Kaufmann, the Hungarian architect, designed the Ora cinema house, which was matched by Ruff’s design of the Arab Cinema.

Another aspect of the Haifa Templer architecture is the presence of the houses modified with ‘added-on’ features; other houses were designed with

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448 Oscar Kaufmann (*1873 +1956), designed the Habimah Theater in Tel Aviv, and Ora Cinema House and the ‘Hiyam House’ in Ahuza, Haifa, not to be confused with Richard Kauffmann, (*1887 +1954), a German architect, who immigrated to Palestine (1920), discussed later in this study.
similar features visually much more complex and going beyond the basic minimal functionality of the first Templer houses. These were homes of well-to-do Templer families who, as the economic situation improved, wanted their houses to become something more than just dwellings. These were the more or less prosperous days, following World War I and the taking-over of Palestine by the British League of Nations Mandate, along with its political and economic ramifications. Carmel (1990), Ben-Artzi (1996) and Sauer (1991) have all pointed out the notable change in the Templers' situation. This kind of architecture signifies a change and a value-system deviation from the basic norms and ‘bon-ton’ of the traditional Templer architecture, a tendency at ‘picturesque’ design (see photos below), which perhaps was always there, but so far restrained.

Photo 99 and Photo 100: Haifa, F. Beilharz house, as built (left) and with additions.
Source: Sauer (1988), p. 113 and 123. The photos are one year apart, 1913 and 1914. The house was enlarged with an additional floor and a turret; the ground floor porch was roofed with a balcony to the first floor. The balusters were likely manufactured by the Beilharz prefab concrete factory, also in Haifa.

In Haifa, houses appeared which were designed for more than one family. These are documented in the Weller photo collection, and in designs by Ruff.

Photo 101 and Photo 102: Haifa, Kaltenbach House and Lorenz House.

Source: Weller Photo Collection, compiled by the Albert Blaich Family Archive, Australia. Both houses have a stairwell on the centerline of the floor plan, dividing each floor into two separate units; maintaining symmetry in plan and elevation. The Weller Collection documents a number of similar houses that Ruff and Weller designed for Arab residents of Haifa, like Dr. Farah, Louis Nahas, and Mr. Farsoun. The designs show a typical International Style syntax, while using some traditional Templer elements: the chimneys, the belt course, wooden shutters. Some of the late houses even had underground water cisterns, although by the time they were built, there already was a municipal pipe system.

Figure 41: Haifa, Ruff's design for the Struve house on Jaffa Road.

Source: Schumacher Institute Archive, file AGC07. The plan is for the first floor, showing two identical apartments, each organized around a central ‘hall’ (sic in plan). The stairwell is on the centerline and leads to the two apartments. A particularly interesting feature is the separation of the two kitchens, two WCs and a common room from the two apartments by a short corridor, creating a ‘service zone’ with a room for domestic help.
Figure 42: Haifa, Ruff’s design for Herrmann, first floor plan.

Source: Schumacher Institute Archive, file AGC08. There are two stairwells, dividing the plan into three apartments. Almost every room has an access to a balcony. The central ‘hall’ has no windows, and serves as a connecting link between the rooms. In the small apartment there is no central ‘hall’.

It was, perhaps, a compromise and an affordable solution for those Templers who wanted to live in town, despite the fact that Haifa was in the process of changing and far removed from the type of community they envisioned or were accustomed to when they first established the Haifa colony. Haifa was becoming more urban each day.
Photo 103, Photo 104 and Photo 105: Haifa, typical houses, three main phases.

Photos: April 2000 and October 2002, and the Weller Collection compiled by the Albert Blaich Family Archive, Australia. The house on the left, was the most basic design, the addition on the right of the building in the same style as the old design. The house on the right, the W. Beck House, was designed by Ruff and Weller, Templer architects from Haifa in the 1930s. This is a totally different style and building technology, and is heavily influenced by the ‘International Style’ morphology and syntax. The house in the middle, represents an intermediate phase in German architecture expression in Haifa: a statement of ‘cultural separation’ and of individuality.

The photos above reflect the changing positioning in the Templer Society with respect to what their architecture represented, for themselves, and for outsiders. The first houses were simple, and minimal, but compared to other houses around them considered to be advanced. The houses that followed had to compete with other houses built by wealthy Arabs and others. In the third phase the Templer houses no longer competed; they were sucked into the momentous construction wave sweeping Palestine in the 1930s. This was coupled with decline in their own religious attitude: the second and third Templer generations were much less religious, and far more business-oriented. Economic considerations became more dominant in building design and construction; and new building technologies were emerging. Similar process was observed by
Andelson (1984), when he analyzed the changes in architecture of the Amana Settlements, at about the same time.\footnote{Andelson (1984), p. 3.}

**Architectural Detail in Haifa:** in Haifa, for the first time construction details appeared which were to become an architectural syntax and be followed, at least in the first years, in other Templer settlements. The presence of competent stonemasons, stone carvers, blacksmiths, and men with experience in general in the construction field such as J. Schumacher and G. Schumacher,\footnote{Not to be confused with the G. Schumacher who was son of Jakob. This G. Schumacher (*1837 +1887) was an unrelated stonemason.} G. Ruff, Beilharz, Oldorf, Hermann, and others. The conscious decision of the Temple Society to include these experts in the first wave of Templer immigrants had proved itself; indeed it was they who created the architectural convention that was to became part of the ‘traditional’ Templer style.

The wisdom, and beauty, of that style lay in the details: in the stone coping over gables, the zinc downspouts, the stone gutters, the simple decorative elements, the wooden shutters and so fourth. Most of them are discussed in the *Markers of Domestic Residential Architecture* Section; below, examples of details – stone, joinery and roof construction, developed in Haifa.

These are the aesthetic of the exterior. The ‘1872’ arch shows machine-like accuracy, with careful attention to joints detail: there is no need for mortar in the joints, and the arch is stabilized only by compression from the loads above it and the resistance of the wall on both sides. There is a differentiation in the quality of stonecutting between the wall and the decorative elements, probably for
economy reasons, but the resulting effect is accentuation of the precision stonecutting and the decorative detail. The Biblical text above the entrance to the Community House was chiseled by Jakob Schumacher,452 to commemorate the first structure built in Eretz-Israel by the Templers. Above the opening a relieving arch, a method the Templers (and others) used extensively. The roof for the Schoolhouse is a typical wooden structure: main beams parallel to long side, rafters perpendicular to main beams, wood strips as spacers for the clay tiles. Usually there was no insulating material below the tiles. The photo also shows some typical Templer details: stone coping over the gable, zinc downspout, cornice return, stone gutter, belt course, molding frame around openings, and the segmented arch. The door is designed with two leaves; the smaller one would open for large movables and normally lock with floor and lintel latches. The door made of quality hardwood and still in good condition after 130 years of aggressive marine weather and poor maintenance, includes iron bars for security.

Interim Summary, Haifa: the importance of Haifa in understanding the Templer architecture is in its being the first Templer Colony. This was where the Templers invested creative energy in formulating the settlement pattern, design convention, making something quite unprecedented. The public debate as
voiced in the *Warte* of the time echoes the process. The first houses in Haifa Colony were the most unique. The process of change typical of the urban colonies affected the Haifa colony as well and resulted in several groups or types of houses, discussed above; also in Haifa during the first years, we witness how learning and experience led to this sort of roof type that evolved there. Haifa was also characterized by the evolution of its two satellites, a fragmentation that occurred only in Jaffa; while in Jaffa the satellite, *Walhalla*, became the active and more economically prosperous sector, the Haifa subsidiaries declined in time, finally ceasing to exist as German entities. In Haifa two generation of builders existed: the first wave of settlers, of whom the architecturally most influential figure was J. Schumacher, and the second-generation designers and builders like the partners Ruff and Weller. Each group acted with the social environment, means and technologies of its time. There is some evidence that the later generation of architects worked for wealthy Arabs in Haifa in the late 1920s and 1930s, influencing the built landscape of Haifa in general, beyond the limits of the German Colony. German builders and craftsmen from Haifa were also commissioned by Jewish settlers in the north, such as in *Degania, Kinneret, Bat-Shlomo, Zichron-Yaakov*, thus also passing on their construction know-how and contributing to the shape, and to a degree function of these settlements.

453 *Warte* 31 (August 1869), pp. 122-123.
Local General Background: Jaffa was the second Templer Colony established in Palestine, a settlement bought from Peter Martin Metzler, the representative of the Swiss ‘Pilgrims’ Mission’ who bought the property between 1867 and 1868, from the American Colony which had just disintegrated.\textsuperscript{454} The Templers bought not only houses but also operable businesses the Americans left behind, such as hotels, a flourmill, a sawmill, an oil factory, a hospital and a pharmacy.

\textsuperscript{454} Eisler (1993), pp. 23-24; Carmel (1990), p. 27, who pointes to the conflict between Hoffmann and Hardegg and the necessity to separate them as the main motive for the move to buy the Jaffa Colony; Kark (1984), pp. 73-74; Ben-Artzi (1996), pp. 104-105.
The Jaffa Colony was composed actually of two clusters, or lobes: the American Site which the Germans acquired (1869) and to which they added a few structures; and the later site (in 1895, the first house in the new lobe), Walhalla, across and north of the historic Nablus Road. The reason was an increase in the German population, creating need for new land and houses.

By 1889, the Hardegg Group established an Evangelical community in Jaffa, which remained in the old ‘American’ site, while the Templers founded the new site of Walhalla in the 1890s. Walhalla developed rapidly, and although both clusters failed to reach the size of other Templer settlements, by 1886 the Warte reported 300 inhabitants in the old ‘American’ Colony, out of which 40 were non-Templers, mostly British and American nationals. By 1910, the total population was 350, most of the inhabitants in Walhalla, meaning that there was a decline in the ‘American’ lobe, and growth in Walhalla.

Eisler (1993) regards the construction of a railroad line from Jaffa to Jerusalem (1892), as a major consideration in the Templers’ decision to buy land next to the railroad line, assuming that land values would appreciate in the future.
Map 18: The Jaffa Colony and Walhalla.
Source: Goren (1998), pp. 164-165. The bottom circle locates the American-German Colony, and the upper ellipse the Walhalla Quarter. Both are located on both sides of the Nablus Road (now Jaffa Road / Eilat Street), less than one kilometer from the Old City of Jaffa (lower left corner).

**Jaffa Settlement Design:** This was the only colony which was neither initiated nor designed by the Templers.\(^{461}\) The Adams group had bought the location for its proximity to the Old City, the advantages of the relative high elevation, and the adjacent Jaffa – Nablus Road.\(^{462}\) The Americans had designed the colony in a simple configuration: a main street and a number of crossing secondary streets, perpendicular to the main street. Perhaps this was the precedent which Sandel, then a resident of the Jaffa colony, took as his example when designing Sarona in the 1870s.

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\(^{461}\) Eisler (1993), p. 8, determined that Adams and his associate, McKenzie, were responsible for the planning.

\(^{462}\) Ben-Artzi (1996), p. 112.
Map 19: (Inset) Jaffa colony drawn by Sandel, published 1912.

Map 20: The German Colony in Jaffa, 1934.

Source for the inset map: Texas University on-line map collection. Detail from a larger map based on the survey made by Sandel, printed by Wagner and Debes, 1912, Leipzig, scale 1:50,000

Source for the 1934 map: National Archives of Maps and Aerial Photographs, the Survey of Israel. (Detail from the map). The map was produced by the British as a part of a 1930s comprehensive survey of Palestine, and is labeled ‘Survey of Palestine, Jaffa Tel Aviv 125-160 7.C.’

The map in the inset above: On the upper left corner the coastline, lower left the northern tip of the Old City. East of the coastline is the Arab
neighborhood of Manshiyeh. The main road north of the colony is the Jaffa-Nablus Road. On the middle of the upper edge, the railway station of Jaffa, and the railroad line going northeast. The colony appears isolated and surrounded on three sides by groves. The main street of the colony (today Auerbach Street) runs from northwest to southeast reaching its highest elevation at the intersection with Hoffmann Street, (the second crossing street). The darkened areas represent built up blocks and not particular structures.

The British map above: still visible is the wall on the west side and the northern tip bordering with the ‘Jaffa-Tel Aviv Road’ (today Eilat Street). Some of the structures on this map - the German Hospital and the Chapel of the English Mission - do not exist anymore. The Large structure on the corner east of the Chapel is the CID Building built by the British. The tennis court in the center of the colony is also a ‘British contribution’. Also visible in the British Map are four ‘tanks’, actually irrigation reservoirs, from the days of the Arab gardens in the vicinity. Other labeled structures are the ‘Jerusalem Hotel’, the church, and the ‘English High School for Girls’, formerly ‘Hotel du Parc’, (see below p. 227). The street on the south side of the colony is labeled ‘Al Amirican’, a relic from the American days of the Colony. The I. Breisch House is the large trapezoid structure located at the ‘T’ intersection of this Street.

**General Architectural Expressions, American Lobe:** The houses were a total novelty in the Palestine of the 1860s: prefabricated wood houses, the Americans brought with them in 1866 when they started the American Colony. The wood frame construction technology was never adopted by the Templers in
Eretz-Israel, although they were familiar with it from Württemberg.\textsuperscript{463} Comparison of a remaining wood structure and a drawing by Fischer of a Württemberger farmhouse, (see below) suggests that the American house was heavily influenced by a common Württemberger design, perhaps imported to the U.S. by the U.S. manufacturer of these prefab houses.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{fig43.jpg}
\caption{(left) American prefabricated house erected in Jaffa, ca. 1866. (right) A Württemberg Farmhouse, half-timbering.}
\end{figure}

\textbf{Figure 43:} (right) A Württemberg Farmhouse, half-timbering.

Photo: January 2002. Wood frame construction, walls plaster over thin wooden planks. The roof (‘hip-on-gable’ or ‘jerkinhead’) is typical of farmhouses found in southern Germany, as recorded by Paul Fischer (1940) p. 131 (right). There are similarities in the size, number of levels, the lower level being constructed of stone, and the corner balcony.

The German settlers in Jaffa used the Americans houses, making a few changes to them, as did their predecessors;\textsuperscript{464} in the Frank (previously owned by Wentworth) House a floor was added; the two-storey Gregory house was converted into a community center and national headquarters and enlarged with two new wings by Th. Sandel; a third floor added to the Hardegg Hotel; and a few new buildings were built, the most noticeable being the Breisch house.\textsuperscript{465}

\textsuperscript{464} Holmes (1981), p. 72.
Jaffa was the only colony that was walled in, partly with stone wall and partly by a cactus fence,\textsuperscript{466} a common solution practiced in the Arab villages as a security measure.

\emph{Prominent Structures in the ‘American’ Cluster}: The Germans made additions and changes to the American houses: added floors, plastered over the wooden siding, and even added a few new buildings, such as the I. Breisch House (see images herein), the Hall House, new wings (designed by Th. Sandel) to the ‘Educational Institution’ (later to become the ‘Hotel du Parc’) and the Imberger House.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{frank_house}
\caption{Photo 112 and Photo 113: Jaffa, American-German Colony, Frank House.
Photos: January and March 2002. The Germans added a floor to the Frank House, and plastered over the exterior. The new floor was also wood frame construction; the filling was with hollow clay tubes, probably in order to have the upper floor lightweight and permit the existing structure to support the added weight of the new floor.}
\end{figure}

Photo 114: Jaffa, the addition to the ‘Jerusalem Hotel’.

Photo: May 2002. A tall structure built originally by the Americans; built with soft limestone and fired clay blocks, and a flat roof. The Germans used the same method except for the roof, which was wood substructure (it has not survived). The addition’s levels do not match the old structure levels.

Figure 44: Jaffa, Jerusalem Hotel owned by Hardegg, ca. 1917.

Source: Postcard collection of Yoel Amir. The main façade facing the street. The postcard text reads “Evangelical cleanliness, Biblical comfort” in German and English. The walls were built with hollow fired clay blocks, and stuccoed over to look like a stone wall, a practice then common in Europe. This was the only appearance of this technology in the colony.

Hotel Du Parc: The building which reflects most clearly the transfiguration of the American-German colony is ‘Immanuel House’, currently the property of the Israel Trust of the Anglican Church (ITAC). It started as a two-story wood frame structure, built by the American group in 1866, was bought by the Templers three years later, who turned it into a school, adding two stone wings on either side of the original structure. By 1878 the Russian Baron Platon von Ustinov bought the property from the Templers, adding a third floor and a penthouse, opening large arched ‘French’ windows, and installing Italian marble floor tiles, turning the structure into the most splendid in the entire Colony. In the garden next to the house Ustinov placed his archaeological collection; these became an attraction for the residents nearby. Ustinov also operated a hospital in the structure.
between 1879-83, while using the third floor for living. The house was later converted into a hotel managed by Ustinov wife’s brothers, on the first two floors of the building. In 1926 the property was bought by the Anglican Mission, now called ‘Israel Trust of the Anglican Church’, and was again converted into a high school for girls. By 1946 it was already requisitioned by the British authorities that closed the school, and converted it into a police point until the end of the British Mandate in May 1948. The building changed hands again when the IDF took over and used it for offices. In 1954 after long negotiations, the ITAC received the building back from the State of Israel. In the 1970s it was purchased by the Anglican Congregation, of the Lutheran Church next door. By 1980 the structure changed into a Hostel, housing a library and a study center.467

Photo 115: Hotel du Parc, American - German Colony Jaffa.
Photo: January 2002.

**Photo 116: The remains of the Imberger House, Jaffa Colony.**

Photo: May 2002. One of the few houses that were built by the Templers in the ‘American’ cluster. Unlike the American wood frame houses, this one was built from local soft limestone blocks, wood being used only as a substructure for the roof.

**Photo 117: Jaffa, I. Breisch House, south and east facades.**

Photo: April 2000. Breisch house (ca. 1870) was “the gem of the colony”,468 though not typical in design, size, use of full arches, long balconies and a basement that was used for commercial storage. The house had balconies running the entire length of the southwest and most of the northeast sides, as appears in the British map above and the photograph by F. Cholten. (See page 422). The plan is not a rectangle but a trapezoid.

**Architectural Expressions in Walhalla:** Since the ‘American’ cluster was designed by the American group, both on the general layout level and to some extent, the changes to the prefab houses, the main discussion will focus on the *Walhalla* cluster, a German initiative.

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468 Eisler (1993), p. 47, quoting the *Warte* 9, September 1872, p. 34.
The *Walhalla* cluster was started with the Franz Lorenz House (1895). The land was bought in the late 1880s, but most of the houses of the cluster were built in the early 1900s.\(^{470}\) A prominent feature of *Walhalla* is the urban character of its houses, perhaps expressing the wide range of occupations of its inhabitants,\(^{471}\) none of whom farmed, because by the time this land was bought, no farm lands were available.\(^{472}\) The accelerated development of Jaffa and its

\(^{469}\) Detailed maps with lots ownerships of Walhalla as well as the American–German Jaffa Colony in Eisler (1993), p. 48, 91, 97. All the items in the aerial photograph are identified in Eisler’s maps.

\(^{470}\) Eisler (1993), pp. 94-96.


environs, created a demand for such occupations such as tourism, trade, light industry, and services. The two most important enterprises were the Wagner Brothers mechanical workshop and metal foundry and the Wieland concrete products factory. Sauer (1991) considered the Wagners’ “[…] the largest industrial enterprise in Palestine [in the early 1900s].”

In Walhalla there is extensive use of prefab concrete elements, perhaps because it was so readily available from the nearby Wieland factory, or maybe to compensate either for the simplicity of the design, or for the availability of skilled masons. Intricate prefab concrete elements can be found in the German Consulate building (1913, designed by the imported German architect Appel), also located in Walhalla, and also in some houses, such as the F. Breisch House. In Walhalla these elements became the most intricate, unmatched by any other Templer community. The next-door Jewish neighborhood, Neve-Zedek, immediately adopted this style, and the Chelouche Brothers even opened a plant there for concrete products with very similar designs.

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Photo 119, Photo 120 and Photo 121: Walhalla, Wagner Brothers workshop. Photos: October 2002, and a photo (detail) from Sauer (1991), near p. 159. The interior photographs were taken from the same angle.

**Prominent Structures in Walhalla:** Two examples of the urban character of the Walhalla houses are the Lorenz and Ohler houses. The Lorenz house was located on the Nablus Road (now Eilat Street), the Ohler house about 50 meters (170 ft.) north of it, on today’s Chelouche Alley. Both houses, making full use of the relatively small lots, are situated so that there is enough space left for small gardens. This is typical of urban-type neighborhood design.

![Photo 122 and Photo 123: The Lorenz house and the Ohler House, Walhalla.](image)

Photos: October 2002. Both houses, as most of the houses in Walhalla, have a hipped roof, with four slopes. This design makes no use of the attic space for a floor space, as was practiced in the older traditional Templer houses. This was a common roof design in the Arab neighborhoods of Jaffa and Haifa of the 1890s. Both houses are built with plastered over soft limestone blocks, and make use of steel ‘I’ beams, just introduced to Palestine. Like most houses in Walhalla, the houses were introverted: there are no balconies, though the steel beams technology could be applied to create balconies. The elevation design was kept simple, symmetrical and fully in the spirit of the traditional Templer Style.

An Arab, joining the bordering Jewish neighborhood Neve Zedek, A-Dib Hinnawi, built a house on the seam-line between the two neighborhoods, with a design that combined the ‘best from all worlds’: the Palestinian four-sloped heaped roof, the three-arched windows from the (Palestinian) central hall house, the prefab concrete elements used by his neighbors (probably the Wielands'),
and the basement, the symmetry and boxy character from the Templers. The result is an aesthetically pleasing house, a hybrid incorporating all the above.

![Photo 124: A-Dib Hinnawi House, bordering Walhalla and Neve-Zedek.](image)

Photo: May 2002. North and East elevations. The space below the balcony was roofed in later years; here was the main entrance to the building, facing East. The location of the entrance is not accidental: it faces neither the Jewish neighborhood, nor the German one. Hinnawi did not want his house identified with any group. Persecuted by his fellow-Arabs, for ‘collaborating with the Jews’, he was eventually killed by an Arab hit-team. A thorough outline of the Hinnawi family in Berger, Tamar (1988). Dionysus in the Center, Tel Aviv: Hakibbutz Hameuchad.

The house is a quality structure: all prefab and joinery elements are original and in superb condition, unlike those in the Jewish neighborhood, suggesting they were made by the German manufacturers next door.
The Wieland Compound:

Map 21: Walhalla, the Wieland Compound, 1934.
Source: National Archives of Maps and Aerial Photographs, the Israel Mapping Center (detail from the map). The map is in scale 1:1250. The compound is labeled ‘Factory (tile)’ showing a fenced area, with the largest structure in the center as the manufacturing unit. The area of the compound is 8.4 dunams (over two acres), a considerable tract of land, compared to the dense built up area southwest of the compound, which is part of the Arab neighborhood of Manshiyeh. The structures northwest of the compound are the railroad station of Jaffa, the first in Palestine. The location next to the Station was imperative, considering the heavy weight of the concrete products. The buildings next to the tracks were the offices for the factory and the other peripheral structures were service buildings.

As of November 2002, when we documented the site, the Wieland Compound in Jaffa was a deserted, inhabited only by vermin. Below, a number of images, which might well be the last ones recorded of the site.
Photo 125: Hugo Wieland Concrete Products factory, Jaffa.

Photo 126: Wieland-manufactured stairs, in Nordau Hotel, Tel Aviv.

Source: Photo by Chibby Schichmann, in Ha’ir September 3, 1995; photo in Duvshani (1993), p. 188. The structure was ‘rediscovered’ as a historic building in 1995. The concrete stairs with the Wieland trademark were installed at the Nordau Hotel in Tel Aviv designed by the Jewish architect Yehuda Magidovitch, 1925. The stairs are interlocking thus providing identical risers and have a round ‘nosing’ to reduce wear. The design of the stairs emulates a wooden stair design common in Europe and the U.S.476

Photo 127 and Photo 128: Jaffa, Wieland’s Compound, manufacturing structure.

Photos: November 2002. The structure is roofed with deep wooden trusses, to achieve the free spans needed without interior columns. The roof tiles are made of concrete, manufactured, in all probability, by the Wielands.

In 1927, the Jewish writer Mordechai Ben-Hilel Hacohen (*1856 +1927), writes about the Wieland factory: “And the Wieland Brothers were making blocks and concrete stones for construction, good ones and decorated, for those of the Jews were neither good nor decorated”.477

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477 Ben-Hilel Hacohen (1927), pp. 185-186 (my translation). Many of the decorated floor tiles manufactured by Wieland were recorded in Hameagel (2003) in dozens of color photographs.
The F. Breisch house in Walhalla

Photo 132 and Photo 133: Ohler and Breisch houses, Walhalla.

Photos: January 2002. Left, view looking south, showing the northern facades, facing the railroad line, next to the wall in the foreground. The houses are close to each other, as expected in an urban quarter. The Breisch House, built in the 1890s, expressing the family wealth, has more intricate (and expensive) details. All floors were made with steel ‘I’ beams and a series of ceiling vaults between them, made of simple concrete with lime as the cementing material, sand and sea shells and sand as aggregates. The topping of the floors was sand, the flooring material painted floor tiles. The architect who now lives in the house and who restored it, points to “the amazing accuracy in which the house was built both in the leveling and in plan.” (Interview, October 27, 2002). The builders used tension anchors - for stability of the exterior walls - imbedded in the walls and plastered over, an identical detail I found in the Amana Settlements of Iowa, also built by Württembergers. All the wooden elements in the house, structural and windows, were made of cedar, imported either from Lebanon or Turkey. The plaster on the exterior walls of both houses still show ochre pigment, made in Germany and imported by the Wielands.478

As in all the Templer Colonies, Walhalla experienced a change in its architecture after World War I. The same process of a diminished religious basis, the heavy influence of the international style, (see p. 82 above) the introduction of new materials and technologies seen elsewhere is repeated in Walhalla. The buildings became simpler, and undistinguishable from other non-Templer buildings around them.

Flat roofs, now possible with the reinforced concrete technology, pushed aside the clay-tiles; these were houses of artisans, craftsmen and businessmen. There is total lack of ornamentation, the geometry is strict, regular and straight-line. These houses were no different from hundreds of houses built in neighboring Tel Aviv by Jewish builders.

In Tel Aviv, the same process of transition from the ‘traditional’ and eclectic to the International is reflected in the work of the Jewish architect Yehuda Magidovitch (*1886 +1972).479 (See discussion in General Comments Section, p. 478).

**Architectural Detail in Jaffa and Walhalla:** The concentration of craftsmen in Jaffa in all the associated building trades, resulted in elaborate detail which had not only survived the stress of turbulent times, but shows an impressive level of aesthetics and professionalism. In contrast to Haifa and Jerusalem, where limestone availability also availed stonemasons, stonecutters and carvers, in Jaffa it was the industrialized quality of details: the prefab concrete elements, the joinery, carpentry and blacksmith’s shop.

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The same technology of concrete blocks simulating stone, was applied, at about the same time, in the German colonies of Amana, Iowa. These too were high-grade concrete blocks emulating stone surface, appearing in West Amana in the 1900s, when stonecutters became infrequent.

Photo 136 and Photo 137: Walhalla, German Consulate, concrete blocks simulating stone.
Photos: January 2002. High quality, accurate concrete blocks, probably from the Wieland factory; the color of the blocks is golden-gray, suggesting use of an ochre pigment, in frequent use by Wieland and imported from Germany.480

Photo 138 and Photo 139: West Amana, Iowa, concrete blocks emulating stone.
Photos: July 2000. The blocks were a later addition to a limestone structure, used at about the same time the technology used in Palestine. No pigment was added. The concrete blocks were an economical alternative to the limestone, which was much more expensive to apply: stone had to be quarried, cut, shipped, and applied by skilled masons; the concrete blocks were cheaper, accurate, uniform in size, cutting was excluded from the process, allowing less specialized labor. The compressive strength of the concrete blocks also competed with that of the limestone; and the visual effect was not as natural, but acceptable.

Photo 140 and Photo 141: Walhalla, construction details.

Photos: October 2002. Left, the F. Breisch house: peeled-off plaster revealed the soft limestone construction of roughly cut blocks of all sizes. The prefab concrete window frame, probably from the Wieland factory, was of high quality and still looks like new many years after it was installed. So do the prefab elements used at the German Consulate next door (right image): all the elements seen are concrete imitating stone. The concrete blocks imitating Arab stone-cutting style known as Tubzeh-Zamleh, where the exterior face is left with a ‘belly’ and the rim of the face is flat. The columns are also concrete, in a neoclassical style. The same columns were observed in the old schoolhouse of Sarona, a building exceptionally well preserved, probably due to high standards of construction.

Photo 142: Walhalla, F. Breisch House, interior and window detail.

Photo 143: Walhalla, F. Breisch House, roof construction detail.

Photo 144: Walhalla, F. Breisch House, stairs detail.

Photos: October 2002. The built window is not a Wieland prefab element, simply because it was not in Wieland’s catalogue. It was too big and too complex to be made from concrete. Breisch was wealthy enough not to compromise, and maintained the design with soft limestone elements, accurately cut and plastered over with stone-effect stucco. Middle and right: wood details, in the original form, made of cedar. The wood elements survived in excellent condition, and look like new.

Photo 145, Photo 146 and Photo 147: Walhalla, F. Breisch House, architectural details.
Photos: October 2002. All construction elements are made of prefab concrete: ‘stone’ gutter, ‘stone’ molding frame, and ‘stone’ lintel framing the latticework. The wall is built with soft limestone (kurkar), and plastered over with stucco. The chimney is built with fired hollow clay brick, as in many Arab houses in Jaffa, and in the ‘Hotel Jerusalem’ built by the American settlers in Jaffa. The wooden shutters are typical Württemberg type, with a fixed top and bottom, and moveable blinds; the leaves held in place by stoppers probably locally made or imported by the Wangers. The shutters are 100 years old, poorly maintained but basically in a good condition.

Photo 148 and Photo 149: Walhalla, iron gates.
Photo: October 2002. Left, gate at the Ohler House, right the gate to Frank house. The design shows simple geometry, combining flat metal plates (probably to screen out animals) and square profiles of various sizes. Similar designs are found in Catholic structures in Jerusalem as documented by Kroyanker (1987b), pp. 111-112.

The artistic aspect of these industrial products must be stressed: they were not only quality products as such, but also maintained an artistic level almost certainly the result of viewing aesthetics as integral to overall excellence.
Following are two examples of products from the two main enterprises in Walhalla: Wagner and Wieland.

Photo 150: *Walhalla*, tensioning anchor, Wagner Compound.

Photo: October 2002. The only appearance of highly-decorated anchors, used to stabilize the walls in one of the structures of the Wagner Compound in Walhalla, could be an improvisation using a part of a product not intended for the actual use. However, the repetitive appearance, and the fact that it faces the main street suggest that Wagner wanted to show his industrial capability, and simultaneously advertise his attractive products.

Photo 151: *Walhalla*, painted floor tiles, Wieland Compound.

Photo courtesy of Karin Klingbeil, Stuttgart. The photo was taken by A. Soskin, who is signed on the frame. Soskin was a celebrated Tel Aviv photographer who documented Tel Aviv life at this period. The photo was taken inside the Wieland compound, probably at Wieland’s request.

*Interim Summary, Jaffa*: In Jaffa, both in the ‘American’ cluster and *Walhalla*, the issue of architectural adaptability stands out as a major cultural
feature. The Germans bought ready-made structures, of non-local materials, quickly adjusting, and making adjustments, to the built form so that their life style could be maintained; as the demographic map, economy, and political system changed in Jaffa, so new focuses of influence made their appearance.

The Colony’s urban character also made an impact on the built form, with the influence of the ‘polite’ houses (see discussion in p. 28 above) in the Arab neighborhoods of Jaffa. The occupational fabric of the Jaffa colony had its say in the location, density, and eventually the morphology of the houses. In Walhalla, there was a mix of traditional houses, houses influenced by the Arab neighbors, and the later houses which were part of the International Style and new building technologies. Similar process occurred in Sarona.

Almost all the houses in Neve-Zedek, the Jewish neighborhood next door (1884, see image and caption p. 229 above), were built with clay-tile roofs, a direct influence of the tradition created by the German Colony nearby, and perhaps other German colonies. The tiles were imported from France by the prominent Jaffa Templer Imanuel C. Breisch, which “[…] changed profoundly the looks of Eretz-Israel.”

There were other importers of clay tiles, German and Jews. Roof clay tiles were manufactured locally in Jerusalem by the Schneller Organization, exact copies of the French tiles, and were even consumed by the

482 Eisler (1993), p. 49.
483 Eilon (2000), p. 126. According to Eilon these importers operated through a number of agents in various countries, but he provides no data as to who they were. See discussion p. 134 above in Reality and Inventory of the Architectural Landscape Section for the clay tiles manufacturers and importers issue.
German settlers in the Templer Colony there.  

Eisler (1993) pointed out that “[…] Walhalla acted as a model for the first inhabitants of Tel Aviv who regarded it as a prototype to be imitated.” (My translation). Kark (1985) also remarks that “The German Colony in Jaffa, […] had a marked influence […] on the character of […] the new Jewish neighborhoods.” (My translation).

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Local General Background: The third Templer Colony, Sarona, was established in 1872, following earlier purchase of a large tract of land near the Audje River (now the Yarkon). It was called Sarona, to mark the proximity to the Sharon Valley, and perhaps to make reference also to the Biblical Isaiah text 65:10), which reflected their feelings about the Holy Land: “Sharon shall be fold
of flocks, and the Valley of Achor a place for herds to lie down, for My people who have sought me.\textsuperscript{487} The expanding Jaffa Colony needed more farmland, which could not be found in Jaffa;\textsuperscript{488} a number of Jaffa settlers began to leave or lease farmland in other locations.\textsuperscript{489} This gave a major push for starting Sarona as a rural settlement.\textsuperscript{490}

![Figure 45: Sarona as painted by Bauernfeind, 1898.](image1)
![Figure 46: Sarona 1901, a detail from a postcard.](image2)

Sources: Carmel (1999), near p. 96, and the postcard collection of Yoel Amir. Both painting and drawing show the rural character of the Colony. The houses are ‘flat’ without projections; the facades simple and symmetrical. The introduction of concrete and the general trend to adopt the International Style throughout the country changed all that, and the later houses were flat-roofed, unsymmetrical, and much more complex in room setup.

In a series of land purchases, the Templers gradually increased their land holdings until, by 1876, they controlled 1,575 dunams (approx. 400 acres.) By 1890 they held 4,640 dunams (approx. 1160 acres.), the largest holdings, of any Templer Colony at the time.\textsuperscript{491} By the late 1880s, Sarona was considered the

\textsuperscript{487} Thalmann (1991), p. 52, quotes the Warte 47 (1871), p. 185, relating the floundering of the Templers between the two names, ‘Sarona’ and ‘Ebenezer’.


\textsuperscript{489} Eisler (1993), p. 41.

\textsuperscript{490} Thalmann (1991), p.50.

most economically successful colony.\textsuperscript{492} Thalmann (1991) described in detail the growth in the number of houses and the land acquisitions.\textsuperscript{493}

\begin{center}
\textbf{Photo 152: Sarona and vicinity, 2001.}
\end{center}

Photo: August 2001. The rural scale and the dense vegetation remained and create a nostalgic enclave in the busy heart of Tel Aviv. The fact that the Colony was in the hands of various Government ministries and agencies since it was nationalized,\textsuperscript{494} only helped to save the area from the hands of real estate people. The recent Master Plan for redevelopment of the area takes into account its historic structures and incorporates them into the new urban design.

\textbf{Sarona settlement design:} Ben-Artzi (1996) and Thalmann (1991) described the wisdom behind the decision to establish Sarona at its location: the mild coastal plane climate, the variety of types of soils, allowing different types of crops, the proximity to the town and the densely populated region, created a natural market for products as did its location on a major transportation artery.\textsuperscript{495}

\begin{flushright}
\footnotesize
\textsuperscript{492} Carmel (1990), p. 43.  \\
\textsuperscript{494} German Nationals Assets Law, 1950.  \\
\textsuperscript{495} Talmann (1991), p. 53.
\end{flushright}
Locating the center of the colony on the soft limestone ridge west of the Musrara Creek (today renamed Ayalon) was a clever design move by Theodor Sandel, the Templar architect. The elevation of the ridge was the determining factor for it enabled vertical disengagement from the flood-plane of the Musrara Creek; Thus allowing houses to be constructed in dry conditions, in a naturally draining-off site, with natural slopes. The elevation also provided good visual contact with the fields around the settlement which helped to guard against crops theft and increase security.

Sources: University of Texas Library on-line Map Collection; and Ben-Artzi (1996), p. 121. The map was drawn by Sandel and produced by Wagner and Debes, Leipzig. A detail from a larger map. The map was drawn or revised after 1892, since it shows the railroad line to Jerusalem. Sandel also marked ‘Mount Hope’ farm in the lower part. At the time of surveying, the only roads near Sarona were the Nablus Road (diagonal) and the two perpendicular roads of the colony itself. On the right is the Imberger Map from 1935, processed by Ben-Artzi (1996) showing the development of the colony, compared to the first map, in terms of new parcels, houses, and secondary streets. Legend: 1. The Community House; 2. The first School; 3. Winery and Distillery; 4. The New School (later a hospital and recently demolished, see picture herein); 5. Aberle House (today Prime Minister’s official Tel Aviv quarters); 6. Pfeloggfelder Oil-Press. Sarona’s development actually established a grid for the streets which exist until today.

497 Ben-Artzi (1996), pp. 112-113; Carmel (1990), pp. 43-44, describes the settlers’ distress regarding the crops theft.
Architectural Expressions in Sarona as pointers of its architectural character:

► No limestone masonry construction. Walls were built with soft limestone and plastered over.
► No Biblical texts above entrances.
► Use of prefab concrete elements to simulate stone details.
► The evolution of substantive and new strata of building trades personnel.
► The effort to create communal amenities; the operation of a landscape designer (J. Laemmle).498
► The considerable number of modern International Style houses, and the most elaborate ones, built using the most modern technologies.

Architects and builders in Sarona: Theodor Sandel, surveyor and architect, who designed the settlement and divided into parcels, was not a Sarona settler; he was the son of a Templer physician, Dr. Gottlieb Sandel, from Jaffa, and later moved to Jerusalem. Sandel was commissioned by the Ottoman authorities to supervise the road works of the Jaffa – Jerusalem railroad alignment.499 Ben-Artzi (1996) describes in detail the planning of the settlement, how public functions were placed at its geometric center, at the intersection of its two main roads. The founders of Sarona expected it to remain a rural settlement, and so

did not allocate any land for commerce or services. Sandel also designed the Sarona winery and, in a very similar design the Jewish Mikveh-Israel's Winery.

Photo 153: Sarona's center: Community House, Old Schoolhouse and Water tower.

Photo 154: Settlers outside the Sarona Community House.

Photo: August 2001, and Sauer (1991), cover. The Community House was built of Wieland’s quality concrete blocks shaped like cut stone (1911), and remains in very good condition. Its roof can be seen in the left illustration next to the Water tower (see also image p. 257). The building uses very little ornamentation, except for a decorated entrance, corner pinnacles, and a round opening, and a series of buttresses needed to support the high walls. In historic architecture, buttresses came to signify the importance of the building, since those were high walls construction; the material is concrete, but the construction is stone masonry bearing-walls. Across the street from the Community House, the old schoolhouse, built earlier (1873 by J. M. Wennagel), also with some prefab concrete elements. The third building in the intersection is the Geschwister Haering House (brothers and sisters Haering House). Built on public parcel, it was sold to the Haerings because there was no need for more public functions, as rural community. The water tower, built 1924 by Josef Wennagel and his son Hugo (lower left), was demolished in 2003 as part of the ‘South Kirya Compound Project’.

Two of the more active Sarona architects in later years were Fritz Steller, and Hugo Wennagel (*1907 Jaffa), as we learn from communication with Palestine-born Templers like Haering and Blaich, today (2003) living in Australia.

503 Manfred Haering, personal communication (email) dated March 24, 2002.
504 Sauer (1991), p. 97, mentions the Steller family as Templers coming from Hesse.
Josef [sic] Wennagel (*1878 +1949), Hugo’s father, a master-builder, was the son of Johann Martin Wennagel (*1851 +1887), who was among the construction specialists encouraged to immigrate to Palestine (1870), to help with the erection of the Colonies.\footnote{Blaich (2003), p. 3.} Johann Martin’s house was one of the first two built in Sarona (1872). In 1873 Johann Martin Wennagel built the schoolhouse in Sarona. His son Josef Wennagel, closely associated with the Beilharz family from Haifa, settled in Jaffa, later moving to Sarona. Josef’s also built the first houses in Wilhelma, houses in the Jewish settlements Degania and Kinneret, and the 20-arch railway bridge in Wadi Ghazze, near Asluj in the Gaza area, and, for the Ottoman Administration, railway stations and bridges outside of Palestine, including the Baghdad – Europe Railroad line.\footnote{Blaich (2003), p. 6.}

Josef’s son, Hugo, learned his trade from his father and was later sent to Germany with Fritz Steller to study architecture. They studied (1929-1933) in the Bauhochschule located in Lemgo near Detmold, in North Germany.\footnote{Horst Blaich, personal communication (email April 25, 2003.); videotaped interview with Hugo Wennagel April 2003 conducted by Manfred Haering in Australia.}

Many houses in Sarona, especially the later ones, were designed and built by Fritz Steller and Hugo Wennagel; it is possible that early houses were designed by Sandel and other outsourced architects. Some local construction artisans excelled in artistic stucco, in joinery, in plumbing and later in electrical wiring. Steller and Wennagel were architects-builders, who were involved also in actual construction. Haering describes ‘Steller laying bricks’ (i.e. concrete blocks,
fired bricks were seldom used) while standing on scaffolding. Hans Pisch was an artisan of decorative stucco, and recalls (he was 88 years old when interviewed for the Sarona Preservation Team by Haering in 2001) how he applied the patterned stucco to the walls of the Haering House, which was designed by Steller and approved by Haering’s father.

Photo 155: Sarona, Haering house, detail of decorative stucco.
Photo 156: Sarona, Haering House, shortly after its completion, 1937.

Sources: Image by Ra’anan Pnini 2001, and the Haering Family photo collection. The house, one of the last built by the Germans in Sarona, remains in excellent condition, almost in its original form, including the interior details, is perhaps one of the best examples in Sarona of an ‘International Style’ house, with its division into big masses, straight line geometry (excluding the balconies), a stairwell with exterior wall(s) that becomes a strong vertical visual, and ‘window strips’. The designer was Fritz Steller, a builder-architect resident of Sarona, educated in Germany.

The list of craftsmen and suppliers associated with the construction, as reconstructed by M. Haering, points at a ‘closed construction economy’ practiced in Sarona, and may be of general interest:

Hans [Pisch], Mr. Messner (Electrician), Mr. Eckstein (Plumber) all came from the border of Austria and Czechoslovakia. Hans arrived in Palestine in 1934; he also worked for Wennagels in 1939, going on to Wilhelma in 1940. Others were Christian Herrman (electrician) Manfred Schnerring (electrician), Edmund Graze (electrician), employed by the Wagner Brothers in Jaffa. Joiners were Otto Venus, Hermann Wied (Sarona) and Doster in
Jaffa. The Wielands [from Jaffa] supplied most materials, e.g. cement, terrazzo tiles; roof tiles came from Jerusalem made by Schneller. Timber & steel were imported; timber came from Sweden by a Jewish Company. Petrol [powered] concrete mixers were made by Gebrueder Wagner [the Wagner Brothers], which regularly exchanged them for newer models. Arabs with donkeys brought in sand & lime, most of other building material was brought by Jews. Some Arabs were employed on the building sites and some in the factories. Most of the Templers learned to speak Arabic. Karl Strecker also had a joinery in Jaffa. Friedrich Haering was a carpenter (joiner) and plumber, and heavily involved in the construction of his family home. [He] Made the cement bricks [blocks] on site; my father did the plumbing, carpentry, the doors, windows, and inside fixing.

**Ample Community Services** was another characteristic of Sarona. A Kegelbahn (bowling alley) also attended by Jews from the vicinity, a sports club, a tennis court, a restaurant, coffee house and bakery, and a weinhalle (pub). Lippmann’s Pool (water storage for irrigation) was also used as a swimming pool. There was also a home for the aged (Altersheim) near the tennis court. The water-distribution system developed in Sarona was one of the first in the country, utilized a wind-operated pump (see postcard picture above), and included a network of water pipes to the houses. Later (1924), a water tower was built to improve on water pressure (demolished November 2002).

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508 See Photo in *Concrete Technology, the New Lippmann House* Section, herein.
509 Manfred Haering, personal communication, Email dated March 24, 2002.
510 Benny Keynan, personal communication, March 31, 2002.
511 M. Haering: “There was one tennis court in Sarona near the rear of Baldenhofer’s property. The whole court was concrete. The concrete was hand mixed by Arabs and leveled by Hugo Wennagel and Fritz Steller.” (Personal communication, Email dated April 2, 2002.)
512 M. Haering: Willi Guenthner had a café – Café Guenthner (Personal communication, Email dated April 2, 2002.)
513 Manfred Haering, personal communication, Email dated April 2, 2002.
Photo 157: Sarona Bowling Alley, near Kübler House.
Photo 158: Lippmann’s pool, Tel Aviv houses in the background.
Source: Photo obtained by Manfred Haering, Australia; the Albert Blaich Family Archive, Australia. No dates indicated. The bowling alley was in the center of the colony, the pool on the periphery and next to the fields.

**Sarona House Design:** In Sarona, there were no Biblical verses above the entrances to the houses; the first houses were very simple, and devoid of any ornamentation as one would expect from pious hard working farmers. Its rural character and the availability of local soft limestone dictated the built form of the early houses. Good quality hard limestone was not available as in Haifa or Jerusalem; as a consequence, it was used only sparingly. The local soft limestone (*kurkar*) was mostly used, plastered over, which determined the visual character of the houses. Sarona homes were plain-looking, unsophisticated straight forward designs, and became more sophisticated with the introduction of prefab elements. Dr. Charlotte Laemmle describes the spirit of the settlers and their frugality: “[…] there was little time or money for luxuries.”\(^{515}\) However, certain Haifa characteristics were also used: a ‘boxy’ look, the symmetry of plan and elevation, basements, useable attics, kitchen storage downstairs, clay roof

\(^{515}\) Letter, Laemmle (2002). See Appendix A, p.550 herein. Laemmle mentions the indoor toilet as a ‘luxury’ which became available only in later years.
tiles, the general shape of the roofs, with minor modifications (the two-slopes roofs were mostly overhanging the gables, a simpler solution than Haifa roofs, and less watertight).

Photo 159 and Photo 160: Sarona, simple house design.
Sources: Laemmle family photo collection, and the Albert Blaich family archive, Australia. Left, the Laemmle house (1870s), built with soft limestone blocks and plastered over. The house on the right (Kübler), also from the 1870s uses the same technology. The fence, made of hardwood sticks and poles around the Laemmle House is typical of the first houses in Sarona. The fence in front of the Kübler house already has prefab concrete elements, probably added later.

Photo 161: Sarona, Christoph Street, 1930s.
Source: Albert Blaich Family Archive, Australia.
In the photograph above, the road (now Elazar Street) was not paved but compacted *kurkar* sand; these houses of the ‘first wave’, all have two-slope clay tiled roofs, some with gabled dormers for windows in the sloping sides. A change from Haifa, the roofing projected over the gables, without parapets, probably because there was no so the gable top edge could be finished with stone coping. In the area there were not enough stonecutters and stonemasons, because there were no limestone quarries, only soft limestone (*kurkar*). Hence the convention of stuccoed soft limestone in all Sarona buildings from the start. The trees and the greenery are part and parcel of the architecture; so is the systematic use of wooden fences, having the same height and the same alignment relative to the road. The garden in the front serves for fruit and vegetables growing, and as a separator buffer between the public and the private space.

*Aspects of Change in Sarona:* The years following World War I were a period of reconstruction for all the German colonies, Sarona included. Templer residents were compensated for damages by the British and received donations for that purpose from their U.S. counterparts.\(^{516}\) The proximity to densely populated centers was a major factor in revitalizing the economy of Sarona, whose farmers could now easily market their produce in those (mostly Jewish) centers.\(^{517}\) German diligence paid off; the colony’s farmers soon enjoyed prosperity. At the same time there was a change in real estate status in and around Sarona: its administrative merging with the Jaffa colony (1929), followed

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by the inevitable migration of Jaffa Templers to Sarona; some Jaffa settlers found it difficult to purchase land for housing due to the increase in land cost in Jaffa, resulting in relocation to Sarona, increasing its population. The colony also became a desirable residential location for non-Templers, among them British officials who had left their quarters in Jaffa. This triggered a land valuation process, which caused Sarona residents to sell land, hence making fast profit and creating means readily available for construction purposes. This migration also affected the socio-economic fabric of the colony. Sarona gradually changed from being a rural community to being a suburb, as expressed in the 1938 list of occupations in Sarona. It was then that architects like Steller and Wennagel became very busy designing and building new houses, all in the ‘International Style’ spirit. The Haering house described above was one such.

The architectural change came in this post-World War I period, when new money, concrete products and technology all became available, made use of one of the most basic design properties of concrete: the possibility of shaping it in any desired form, as a material that can be poured into forms. The Community House (see illustration p. 249 above), built entirely with concrete blocks emulating stone, was built with concrete, but with stone masonry technique. The new schoolhouse (1930s, see illustration below), also built with concrete, but using the technology that goes along with it, i.e. steel reinforcement, which made

520 Kanaan (1968), p. 17.
521 Thalmann (1991), p. 207, quoting the Warte 4 1939, p. 28; Carmel (1990), p. 59 traced this process to even earlier years.
it possible to do without imported expensive timber beams or steel “I” beams for ceilings.

**Prominent Structures in Sarona:** Two ‘concrete benchmark structures’ which are no more, but which stood for the change in Sarona, were the New Schoolhouse and the Water Tower, both built by the Wennagels.

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**Photo 162:** Sarona new schoolhouse, 1932, detail.
**Photo 163:** Sarona water tower under construction.

Sources: Albert Blaich Family Archive, Australia; Haering family photo collection. Both structures were built of reinforced concrete. In the Schoolhouse, the advantages of reinforced concrete can be seen: thin ceilings and walls, overhang of the outdoor corridor, accuracy and modular sizing of openings. After 1948, the structure was converted into a hospital and recently demolished. In the water tower the designer (Wennagel) used a major attribute of the concrete: the continuity of the material. The tank is one monolithic element which can resist the considerable pressure of the water inside. The tower was built (1924) by the Wennagels. The water tower, poured in one day with the help of fifty Arab workers who carried the concrete mix in twenty liter buckets up the scaffolding.

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The later houses in Sarona were typical International Style structures, which retained some of the basic traditional Templer architectural characteristics: simplicity, functional design, a basement with windows, the wooden shutters, and

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523 Salvadori (1990), p. 182, provides a detailed discussion on the merits of the continuity of structural surfaces.
524 Mafred Haering interviewed Hans Pisch in Australia on March 23, 2002 on my request for the Sarona Preservation team. At that time he was 88 years old.
in some cases the traditional chimney and even the clay tile roof (as in the Haering and the New Venus houses).

Photo 164, Photo 165 and Photo 166: late ‘International Style’ houses in Sarona.
Source: Haering family photo collection. From left: Eugene and Elly Steller house; the New Venus House (tennis court in the foreground); Otto Jung House. All were built with reinforced concrete for ceilings, and concrete blocks for walls and had flat roofs. The walls were plastered over with high-quality stucco, which remains intact. The design does not rely on symmetry, the architectural effect is attained by proportions between the volumes and projections of different planes in elevation. The balconies and porches become a part of the building, not a projection.

The later houses were larger and richer in functions; descendents of the Aberle Family whose house, designed by F. Steller, was also in that group, provided a full list: four bedrooms, study, dining room, laundry room, lounge, family room, sewing room, two bathrooms, entrance hall, maid’s room, cellar, floor-tiled roof and balconies, and a garage.

The Christian Weiss House: A house whose design and location are noteworthy is the Weiss House. Built between the two World Wars, already with reinforced concrete technology and located at the southeastern end of Sarona, overlooking the Nablus Road (Now Baegine Road).

Weiss wanted a view of the Road, one of the main arteries of the area, so he built his house with a round balcony in the middle of the main façade, creating
a design which echoes the ‘Jeffersonian’ designs popular in the U.S. in the mid-19th Century, and which expressed the dignity of the residence, even though the house was small and the rooms very modest.

Photos: October 2002. The area when photographed was in the midst of construction, next to the Weiss House office towers were erected, creating a sharp contrast between historic Sarona and the new structures. The old buildings are now accentuated by the new ones: the new synthesis bringing out the best of each group.

Photo 170, Photo 171 and Photo 172: Sarona, Weiss House, interior.
Photos: October 2002. The high ceilings and the decorative painted floor tiles, probably made by the Wielands, demonstrate the Templers liking for rather ornate interiors, as opposed to restrained and ‘plain’ exteriors. Rooms are small, but each room has different floor design.

The Weiss House was built in a style reminiscent of the ‘Jeffersonian’ style, borrowed from the American architecture. The reason was, in my assessment, a desire to show a structure of uniqueness and prestige, as was typical of Jeffersonian buildings. The White House in Washington DC and Monticello are resembling examples. In Palestine the Hungarian architect Oscar Kaufmann designed the Habimah Theater in the same spirit, in the 1930s, perhaps creating precedence for this type of structures.

**The Laemmle House**: Another early Sarona house was the Laemmle House. Laemmle’s descendent, Dr. Charlotte Laemmle, has described it in detail. As of March 2003 the house was still intact. Built in the early 1870s, the Friedrich Laemmle House Sarona, represents a logical compromise on the issue of separation of functions.

In a series of sketches drawn from memory of her aunt Lina Laemmle, Dr. Charlotte Laemmle provides a clear picture of the division of functions. Below, her plan of the ground floor. The major division in the complex is into two main structures: the building next to the street (bottom of drawing), and the smaller service structure at the back (top of the drawing). The main building housed the ‘human’ functions: dining, sewing, pantry, and kitchen. On the back of this layout, the ‘secondary’ functions not directly related: granary, laundry, and bee-keeping equipment, all are further separated by a number of stairs.

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526 Data concerning the Laemmle House was obtained through intensive correspondence with Dr. Charlotte Laemmle, a descendent of the Friedrich Laemmle family, one of the early settlers of Sarona. In a long and detailed testimony Dr. Laemmle described the house, and life in it, with hand drawings and textual information. Many thanks to Shula Wiedrich and Paule who initiated and maintained this correspondence.
This setup located the bedrooms and the ‘lounge room’, on the second floor (see plan p. 262 below).

The other structure on the site was the barn, according to Laemmle a two-storey building housing livestock. The upper level, for which we have no plan, for hay storage.
The second floor of the main building consisted of five rooms and a bath, (access to the bath not clear, but probably from the balcony). Three bedrooms, a guest room and lounge – in which Dr. Laemmle even marked the location of the piano. A balcony running the width of the building faced the street. The house contained two more levels, the basement and the attic.

Both plans show typical Templer design characteristics: Symmetry in plan, division into three (structural) fields, probably resulting from the availability of timber beams, central spatial organization providing access to the rooms from a central space, which also serves as a vertical connection to other levels, and separation of ‘clean’ from ‘work’ levels, either by stairs or location in another structure.
Architectural Detail in Sarona: the variety of detail in Sarona not only does not impair the Colony’s visual richness, it adds to it. Sarona became an ‘outdoor exhibit’, a model settlement which experienced changes, expressed individuality and became a showcase for the talent and professional attitude of its resident architects.

Photo 173 and Photo 174: Sarona, fences on the main street and in the Laemmle House.
Source: Albert Blaich Family Archive Austria. The photo on the left is dated 1934, the photographer is Hesselwerdt. The fences are of different types, but the alignment is ordered and the result, a street with a method.

It is of interest that in these houses fences were conceived as part of the house, their design using the same syntax and materials of the house, becoming an extension of it, thus enhancing its architectural presence and effect.

Photo 175 and Photo 176: Sarona, front fences of the late houses.
Source: Albert Blaich Family Archive, Australia. Left, the Aberle House, right, the Neef House. The method was to find the right proportion between the solid and the transparent parts of the fence or the banister of the balcony: too much solid would block the view (in both directions) too much transparent would result in too little separation.
Chimneys came in a variety of forms, the predominant being the traditional concrete or fired clay bricks shaft topped with a flat thin concrete slab to resist downdrafts and rain; but there were other solutions as new means and materials became available:

![Photo 177, Photo 178, Photo 179 and Photo 180: Sarona, chimney detail.](image)

**Source:** Albert Blaich Family Archive, Australia. From left: the D. Eppinger House, built by H. Wennagel, 1930s; the Laemmle House, built in the 1870s; The R. Lippmann House built by F. Steller, unknown date; and the Aberle House built in the 1930s by F. Steller. Modern houses were still using old chimneys, copied from the same types used in Württemberg, other houses, like the Lippmann House used a prefab clay tube with a stylized top, similar to the chimneys at the Duck House in Haifa, and other European houses in Jerusalem built in the 1890s. The chimneystack at the Aberle house contained a single flue, made of iron.

Prefab concrete elements were extensively used in Sarona - once they were on the market - creating a homogenous stylized look and contributing to the *genius loci* of the settlement, as do the metal details, blacksmith's shop and tinsmith's shop.
Photo 181 and Photo 182: Sarona, prefab concrete products.
Sources: Albert Blaich Family Archive, Australia and Photo July 2001. Stairs, banisters, projecting window moldings, decorated concrete blocks and quoin emulating stone, were manufactured in Jaffa by the Wielands, and used until the reinforced concrete technology outdated them in the late 1920s.

Photo 183 and Photo 184: Sarona, Leader head, downspout and banister.
Source: Albert Blaich Family Archive Australia. Left, E. Steller House; right, K. Steller House. Both houses were designed by F. Steller. The leader head detail and design is like that used in the U.S. and Europe, and still practiced today. The usual material was zinc-plated iron sheets shaped by the tinsmith. The balusters in the K. Steller house were made of square section iron bars, alternately twisted and plain, the horizontal bars positioned on both sides to provide a clean joint, with a bolt.

**Interim Summary Sarona:** as the second (pre-designed) colony, and able to utilize experience gathered in the first two colonies, Sarona shows some of the aspects particular to Templer architecture. It gave Sandel, a young architect at the time (he was 26 years old in 1871), an opportunity to stand out as a

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527 Huntington (1967), pp. 569-571.
capable settlement designer, and is possible that he also designed some of Sarona’s first buildings. Those first houses were based on the Haifa type, with local adaptations: the material was local soft limestone, but the design characteristics were similar: four levels, including the basement and the attic, with the same functional distribution, symmetry in plan and façade, clay tiles roofs, no ornamentation. Differing from the Haifa design, the roof details were simpler, and elaborate stone details were not implemented. There were no Biblical texts as in Haifa and Jerusalem. Typical of these are the Laemmle and Kübler Houses (1870s, see images above).

The appearance of prefab concrete products created a change in house design approach; it provided opportunities for the use of more sophisticated construction details, with a general look that is more decorated and more representative, influencing also wall thickness and accuracy of construction. Typical examples in this group are the Community House (1911) and the house (Gottlieb Glenk?) documented in Stone Masonry Construction Section, p. 349, herein.

The most architecturally noteworthy houses in Sarona were houses built between the two World Wars. The background for their construction is laid out above; they express two faces of Templer architecture: on one hand, the outstanding designs and superb craftsmanship, on the other hand the assimilation into the general consensus of the International Style, in a sense, losing the uniqueness of Templer traditional style and merging with the regional
mainstream. Typical of such houses were the Haering house, the New Lippmann House, the Eugene Steller House, the new School building, and others.

The common denominator of all these houses is the quality construction, the durability (see discussion on sustainability p. 488 herein), and shared traditional elements maintained throughout, and discussed above; the levels of complexity, size, accuracy, industrialization and sophistication, increased with availability of more technologies, materials and know-how.
Jerusalem (Rephaim) Colony

Map 25: Jerusalem and vicinity.

Source: Nur (2000), p. 34. The circle shows the location of the Rephaim Colony. On the lower edge the community of Beit-Jala, close to Bethlehem. Road Number 1 connects Jerusalem to Tel Aviv (West) and Jericho (East). Road 60, the main road from north to south is the Hebron Road, connecting Jerusalem with Ramalla and Bethlehem, and passing east of the German Colony. The Old City is the white spot northeast to the Colony, about one mile away in aerial line.

The [German] Neighborhood’s charm is unique, stemming from the human scale of the houses, and the rural atmosphere created by its red roofs, gardens and green shutters.529 (My translation). (David Kroyanker, a Jerusalem architect, architectural historian and theoretician).

Local General Background: The Jerusalem Templer Colony started out with the settlement of one Matthäus Frank, a Mennonite from the Caucasus. Frank built a house and mill (1872), for his father-in-law, Nikolai Schmidt, also a

Mennonite. In 1874 two Templer settlers joined: Schmidt and Aberle; gradually more houses were built by Templers along the main road (today Emek Rephaim Street).

In 1878 Hoffmann decided to move the center of the Temple Society to Jerusalem, making it the “[…] fourth and from now on the most important [Templer] community.”

By 1898, the Jerusalem Colony consisted of 392 inhabitants, mostly (282) Templers. There were 39 buildings, 37 outbuildings, eight hectares (80 dunams or 20 acres) of residential land and 12 hectares (120 dunams or 30 acres) of vineyards. The same source provides a list of occupations, out of which only one settler was in agriculture (winegrower), the rest tradesmen, craftsmen, merchants, and professionals.

Rephaim Settlement Design: Ben-Arieh (1979) typified the Colony design as a Strassendorf (street-village) common in Germany, meaning a layout of a single axis, a street with houses situated along that axis, on both sides of the street, creating a built-up strip. Kroyanker (1987a) also typified the Colony as such, describing the Colony as consisting of two main axes (Rephaim Street and Bet Lehem Road), creating a triangle at the point where these roads meet, and a system of secondary roads connecting the two axes. Ben-Artzi (1996)

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530 Sawatzky (1990), p. 51.
531 Ben-Arieh (1979), pp. 178-190.
opposes this definition by Kroyanker,\footnote{Ben-Artzi (1996), p. 16.} indicating that the fact that \textit{two} axes were used, excludes the colony from this definition, since it is not a linear layout.\footnote{See Ben-Artzi’s definition of a \textit{Strassendorf} in Ben-Artzi (1996), p. 76.}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{map26.png}
\caption{German Colony, Jerusalem, street map.}
\end{figure}

Source: Goren (1998), p. 249. The two streets, Emek-Rephaim and Bethlehem Road converge at the north tip, where the Community Hall and the schools (\textit{Lyzeum}) are located. The cemetery is marked on the southwestern side of the colony. The three communal functions: schools, community house, and cemetery are located at the periphery of the colony, suggesting a gradually developing settlement design, as opposed to inclusive design typical of most colonies. The railroad line coming from Jaffa actually borders the colony on the east and southeast.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{map27.png}
\caption{German Colony, Jerusalem, topo-cadastral map.}
\end{figure}

Source: City of Jerusalem City Planning Dept. digital archive (Thanks to David Cassutto). The density of the lines in the drawing reflects the density of objects and the visual richness of the neighborhood. The topo lines have values of 750 meters (2475 ft.) above sea level; and show a slight slope to the south. The mapping also shows the dense tree concentrations, mostly planted by the German settlers. The small size parcels and the proximity of the houses create the unique architectural fabric described by Kroyanker above. According to Kroyanker (1987a), the uniqueness of the colony is in the overall impression created by “[…] the pastoral rural fabric [of the colony] […]” and rather than because of the architectural quality of each specific building.\footnote{Kroyanker (1987a), p. 83.}

Digital map graphics above support this observation.
Ben-Artzi determines that in Jerusalem, the Colony’s layout cannot be accurately defined; moreover, the Rephaim Colony did not undergo the normal process of physical planning. It grew slowly out of an initiative of one person (see above), gradually attracting other settlers, creating a slowly-evolving community. This is in sharp contrast to all of the other colonies (except Jaffa where the layout was created by the Americans). Ben-Artzi termed this behavior “spontaneous development”.\footnote{Ben-Artzi (1996), p. 120; Kark & Oren-Nordheim (1995), p. 143 also observe a process in the Christian neighborhoods of Jerusalem where there is no overall planning but instead a stychic process of urban development.} Kark & Oren-Nordheim (1995) differentiated between the initial phase of the Colony’s evolvement and the later phases, where in the first phase the colony was built in the Strassendorf format, but later losing these characteristics due to development of the main axis.\footnote{Kark & Oren-Nordheim (1995), p. 160.}

The overall result from this academic debate is to clarify the existence of a consensus among scholars of the Rephaim Colony that there was no attempt to pre-design it, and that its development over the first years was, in fact, spontaneous, so any attempt to classify its format might be considered oversimplification. The only ‘safe’ observation to be made is that the colony developed along an axis (Emek Rephaim Street), in time thickening itself and by so doing creating secondary streets as connectors between the two main roads.

**Rephaim House Design:** The Rephaim colony possesses an unmistakable character, and sense of place, due to the strong overall impression it makes: stone houses, stone fences or stone and iron latticework, mostly single-family, some simple designs, some more elaborate. The facades are built of roughly-cut
stone, the construction method similar to the Arab method of two parallel walls with a filling between them. In the more elaborate houses, the designs of the main façades were more stylized, and included Gothic inscriptions with Biblical texts.

Figure 49: Jerusalem, Rephaim Colony, painting by Bauernfeind, 1898.
Photo 185: Jerusalem, Rephaim Colony, photo from the Bauernfeind Inheritance.
Source: Carmel (1999), near p. 96, painting 4, and photo 18. The painting was one of four presented to Emperor Wilhelm II on his visit to Palestine in 1898. The paintings were forgotten and re-discovered by Prof. Carmel of Haifa University in 1981. Bauernfeind was perhaps one of the greatest painters of the Levant and Eretz-Israel in particular, as noted by Carmel (1999), quoting Friedrich von Tirsch and Dalman. Carmel establishes, that the Bauernfeind paintings are a valuable historical documentation of the built landscape of Eretz-Israel. The photograph of Rephaim was found by Carmel in the Bauernfeind Inheritance, showing the Lyzeum (on the left) and the Frank House on the right. The Community house was built later and is not shown here.

Kroyanker (1987a) analyzes in detail the architecture of the Rephaim houses, devising a breakdown according to the different periods and degree of complexity of the houses. Following are the important observations:

► ‘First Generation’ houses, built between 1873 and the beginning of the 20th Century; features:

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541 Carmel (1999), p. 120.
542 Kroyanker (1987a), pp. 81-83.
1. An elevated entrance porch, in the center of the main façade.
2. A central wide corridor dividing the plan into two equal parts with two rooms in each part.
3. A kitchen at the far end of the corridor.
4. A lavatory usually in an outhouse.
5. A basement usually accessed by external staircase.
6. In many basements a cistern, and a room for domestic help.  
7. A Clay-tiles gable roof, used as storage space or for additional rooms.
8. Stone masonry construction, usually in *khaammi* cut stone.  

Figure 50 and Figure 51: Khaammi stone arrangement, projecting and recessed joints.  
Source: Kroyanker (1985), p. 394. The recessed joints were used in more urban and wealthier houses, the projecting joints in rural settlements.

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543 Compare features 1-6 with the Laemmle floor plans in the Sarona Section above, and also with plan of a house in Heilbronn, southwest Germany, in the Gypsum-Tempelfeld Section herein.
544 See Huntington (1967), pp. 248-250 for types of stone finishes. The type corresponding to *Khaammi* is ‘quarry-faced’; Kroyanker (1985), pp. 383-414 provides extensive discussion on the Arab tradition of stone masonry; Canaan (1933), pp. 16-19 also describes this dressing as *Hām*.  

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Figure 52: Stone wall construction, two stone faces and a debbesh filling (detail).
Source: Hirschfeld (1987), p. 69, detail from a drawing by Erez Cohen. The filling is uncut rubble stone and leftover chips from stone cutting, bound with a cementing mix (usually lime, water and sand). The wall is built with faces and filling simultaneously.

Photo 186: Lfta, near Jerusalem, Stone Masonry details.
Photo: November 2002. Thick walls with exterior and interior stone faces, and a rubble stone filling on the inside.

built in very thick walls (80-100 cm or 32-39 in.), in two parallel layers as described by Hirschfeld and others.\footnote{545}{545 Hirschfeld (1987), pp. 61 ff.; Pinkerfeld (1943), pp. 150 ff.; Canaan (1933), pp. 27 ff.}

9. Symmetrical placement of arched or rectangular openings on the façades.

10. Grills on openings with a round cross section, plain, without curling or twisting.

11. Wooden shutters on windows, mostly with blinds in the middle and solid in the upper and lower parts.

12. Ceilings were made with plastered wooden planks, shaped like a truncated pyramid; in the older houses, the ceilings of the basement and first floors were constructed with stone cross-vaults (sometimes called groined-vaults);\footnote{546}{546 See the Section Reality and Inventory of the Architectural Landscape in Eretz-Israel, 1860s, p. 132 above for description of the cross-vaults technology.} In the 1890s the
ceilings were built with steel 'I' rails, with floor-arches made of stone and mortar.  

Photo 187 and Photo 188: Jerusalem, Old Lyzeum basement, cross-vaults.  

Photo: November 2002. The basement is half dug into the ground in order to allow windows and access from outside. The exterior walls thickness measured 100 cm (about 40 in.) and the interior walls about 70 cm (about 28 in.). The walls are only partly bearing walls: most of the vertical loads are received by corner buttresses, and the exterior walls thickness resist the pressure of soil from outside. The basements were tiles with simple concrete tiles, as opposed to the decorative painted tiles on the upper floors.

13. Flooring was done with imported wooden planks, as in Germany or polished coursed stone later substituted for painted floor tiles made by Templer manufacturers.

Photo 189: Kirschenhardthof, Germany, Bollinger House, wood planks flooring.  

547 See description of the floor-arches technology pp. 308 and 349 Section below.  
Photo 190: Jerusalem, Sandel House, interior, polished coursed stone floor tiles.

In the photographs above, the thick wooden planks (about 45 mm (2” planed) are the same as when the house was built 150 years ago. The stone tiles in the Sandel House are made of quality hard stone, called in Arabic *Mizi akhmar*, with pink veins, sanded and polished, which also still look like new. Schick (1897) describes the same type of floor tiles in Jerusalem. The view is toward the main entrance, a few steps down from the level of the rooms. Another flight of stairs descends to the basement, from the entrance level. The entrance is on the same level as grade of the front yard. This is a clever solution of a ‘split-level’, where from the entrance level one ascends half a level up to the upper floor, and a half level down to the lower floor, saving on the length of the flights. The interior, and the exterior of the building have not changed since Sandel’s family left the building.

In these ‘First Generation’ houses, there were single and two storey types. These may be divided again into two categories: the simple, and the stylized, the latter having the same features, save for a more stylized and ornamented main façade facing the street. These facades had classical elements, Biblical inscriptions, more skilled stone cutting and dressing, better quality stone, sometime involving sculptors as well as masons in the construction.  

549 Kroyanker (1985), p. 384; Canaan (1933), p. 10 regarded this stone as a sub type of *mizi yahudi*, a commonly used hard stone. In Arabic, the meaning of *mizi yahudi* is: “Hard as a Jew’s neck”.
550 Schick (1897), p. 106.
551 Lange (1998), p. 110, described how Sandel involved the sculptor Christoph Paulus Junior in making the lion sculpture, placed above the entrance to the Sandel House.
Also in the stylized ‘First Generation’ houses, there are many appearances of a triangular pediment, with a round or oval opening, a feature found in a number of regions in Germany, as well as in Württemberg.\footnote{See for example the photographs in Sigrid Scheuss & Birgit Wilms (1990), Dormagen, Stadt-Landschaft am Niederrhein, Köln: Wienard Verlag, p. 10.}

\textit{The ‘Second Generation’ houses} were erected during the beginning of the period of the British Mandate in Palestine, after World War I. These had the same visuals, but different construction technology: concrete (or concrete blocks) walls clad with local stone, usually in the \textit{talthis} dressing.\footnote{Kroyanker (1987a), p. 83.}
In field observations carried out during April 2001 I wanted to expand on the typology provided by Kroyanker, and found more characteristics documented below.555

► **Architectural character of the German Colony is marked by the subtle combination of materials and colors.** The stones, clay tiles, wooden shutters, and vegetation, on one hand, and together with the white-sand-ochre of the stone, the reddish terracotta of the clay tiles, and the green of the shutters and vegetation.

► The Germans were enthusiastic about the **possibilities offered by the Mediterranean climate**, namely many hours outdoors, and a life style not possible in central Europe; hence the balconies, porches, and, in Jerusalem, considerable investment in gardening, both in front of the house and in back of it.

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555 Field observations, carried out April 24, 2001. Many thanks to Yoram Ginsburg from the Hebrew University and YOSH College who joined me in this field session.
► **Most houses would have a ‘corner marker’** (quoins) and a ‘floor marker’ (zoonar or belt course), for which there was structural reasons beyond architectural appearance (See p. 400 herein in the *Markers of Templer Architecture* Section). In general, the masonry construction - the most common denominator of Templer houses - borrowed ideas from Palestinian know-how of stone masonry and existing European structures in Jerusalem. The basic idea was that of the massiveness and the heavy weight of stone walls that could bear lateral and vertical loads, as in the bearing walls of Arab structures. The thickness of these walls served also as a climactic filter; allowing thermal inertia since thick stone walls serve as ‘heat barrier’ in the daytime, when it is hot in the summer, keeping the inside of the house cool. Over the night, the heat contained in the wall is radiated into the house, warming it up. The Templers learned this feature from the Arabs, and also copied the idea that different walls need to be in different thickness: those exposed to higher radiation (south, southeast and southwest) need to thicker than the others. The Templers used this idea in Jerusalem.

► The Templers wanted to create a symbolic *interpretation of Islamic Palestinian architecture*: elements such as stone masonry, cross-vaults, and arches, but also brought European technologies with them: clay roof tiles, the use of wooden roof substructure and ceilings and glass and wooden shutters in windows. They connected the two cultures via their building technology: Arab stone masonry with thick bearing walls and the clay-tiles roof with light-weight
wood substructure. And in some of the German houses, small openings near the ceiling line, the *taka* – a feature also borrowed from the Arabs.

![Photo 193: Jerusalem, Schmidt Pension, Takas for ventilation.](image)

*Figure 55: Jerusalem, Wilhelm Aberle House, Takas for ventilation.*

Photo: May 2002 and drawing by Kroyanker, in Kroyanker (1966a), p. 176. The detail is almost identical, suggesting the same mason and/or architect. The Aberle House (10 Emek Rephaim Street) was one of the first in the Colony, the date above the entrance is 1874. The Schmidt Pension (8 Emek Rephaim Street) was built one year later. The upper floor windows have straight lintels, the lower ones arches. The reason is structural: the lower arches are subjected to a greater load than the upper lintels, and the arches do a better job bearing the load. The *Taka*’s are immediately below the gutter line and above the ground floor windows, a traditional local feature.

The elevations in the houses are based visually on the principle of mass, a definite proportion between the area of the exterior wall and the area of the openings, (usually 15-20%). The Templers in *Rephaim* made that a higher proportion, 25-30%, with larger openings, expressing their social openness, and letting more daylight and fresh air into the house.

► **The use of color** in Templer houses: because there was not much color in stone masonry, Templer houses excel in colors produced in other ways, as in

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556 In *Beit-Shean* the Germans also combined two technologies: adobe walls and concrete, see the discussion in the *Technologies* Section p. 360 herein.
vegetation; bright plants like bougainvillea, morning glory, geraniums, terra-cotta clay tiles and deep green shutters providing strong contrasting colors compared to the subtle natural color of stone. Inside, painted floor tiles and wall decorations provided some additional if modest color.

► The use of plants in Rephaim, other than for color, can be divided into three types: (a) Protective vegetation (cypress and eucalyptus trees, as marking the borders of land parcels), as wind breakers and for shade, (b) Functional vegetation, fruit trees and vegetables, (c) Ornamental, flowers, trees and bushes, plus medicinal plants, herbs and spices.

Prominent Houses in Rephaim: as in all colonies, some houses stand out more than others, and are less typical, provide a different angle for observation.

The Sleepy Lion: One of the most interesting houses in Rephaim is the house of Theodor Sandel, on 9 Emek Rephaim Street. Old Jerusalemites claim that the stone lion above its entrance is the most effective of all Jerusalem stone lions, having been carved with great skill by Christoph Paulus Junior, in granite.

558 See the Sustainability Section p. 489 where creating a micro-climate is discussed.
The entrance to the Sandel House is decorated with a “Neo-Romanesque gable”,\textsuperscript{562} a similar visual appearing on the Community House not far away.

\textsuperscript{561} Lange (1998), p. 103.
\textsuperscript{562} Kroyanker (1987a), p. 82.
Sandel, who designed both Jerusalem buildings (photos above), used the same architectural element, the Neo-Romanesque gable, in both. The round opening in the Saal’s gable was also a favorite visual Sandel used in large structures, such as the wineries of Sarona and Mikveh Israel. G. Schumacher, who designed the British Hospital in Safed (right), used the very same visual as Sandel in Jerusalem. The round element in the Schumacher building housed a clock as evident in older photographs. Was it Schumacher’s commemoration of Sandel, a fellow architect, who died a year earlier? The British Hospital was built by a Templer firm, Beilharz’s from Haifa.

Sandel’s house reflects, above all, Sandel’s personality, as is often the case with great architects: the simplicity reflective of his own modesty, the craftsmanship as reflective of his professionalism, the fanciful entrance and the lion of his artistic spirit: all these funneled into the shy little house on 9 Emek Rephaim Street.

**The Ehmann House.** Built in 1905, the house (22 Bethlehem Road) is considered by many to be the most splendid in the Colony. Kroyanker (1966a) describes the style as a mixture of elements, including the ‘Wilhelmian Jugendstil’, a design trend practiced in Europe as part of the Art-Nouveau Movement, in the 1880s and 1900s, and combined with Romanesque features. Its main visuals were stylized natural shapes - flowers and leaves, rounded lines, flat two-dimensional designs. Kroyanker (1985) indicates a

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563 Perry (2002), p. 73, 81
565 Kroyanker (1987a), p. 82.
connection between the *Art-Nouveau* and the Islamic Art, perhaps one of the reasons for its adoption by Arab architects of that period.\textsuperscript{566}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{ehmann_house}
\caption{Jerusalem Rephaim Colony, Ehmann House, drawing by Kroyanker.}
\end{figure}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{ehmann_house}
\caption{Jerusalem, Ehmann House, 2002.}
\end{figure}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{ehmann_house}
\caption{Sources: Drawing by Kroyanker (1966b), p. 138; photos November 2002.}
\end{figure}

Ehmann (*1877 +1926) was a gifted architect, with the rare ability to blend styles, materials, forms and textures. He probably used his house as a ‘business card’, displaying his ability as designer and master builder. His building is an admirable mix of old and new, roughness and finesse, mass and material. Built in the early 1900s, it still looks brand-new after almost 100 years, thanks to the clever choice of materials and their processing. He imported architectural elements from Württemberg, like the hip-on-gable roof, the clay tiles, the stepped gable; but made use of local material and its processing, creating a very intricate rich-looking architectural object.

The stepped gable was a common *Art-Nouveau* element, and also a traditional construction form in Germany and in Central and Northern Europe in

general and can be found also in Holland, Belgium, and France, where it was used for centuries as a method to place roof beams between gables.567

Conrad Schick built his house, Thabor, in Jerusalem (58 Haneviim Street), in the 1880s, using the stepped gable form in several places in the perimeter wall, as a means of adding interest and enriching the façade.

The New Lyzeum (secondary school, German) in the German Colony (5 Emek Rephaim Street), built in 1882, was also decorated with a stepped gable on the main façade; was Ehmann the designer?

Photo 200: Jerusalem, New Lyzeum Building (1882).
Photo 201: Göppingen, Germany, 19th Century stepped gable.
Photos: May 2002. The stepped gable suggests a design by Ehmann. The stone dressing style, with rough and fine dressings, shows deep understanding of the textural effects of stone.

Architectural Detail in Rephaim: Smuts Street and the importance of the high stone fences: Characteristic of Smuts Street is a runway without sidewalks; on the property line, there is a very high stone fence, (about 1.50 m’ or 5 ft.), creating a sense of privacy, and at the same time defining the street as a public

space, also creating the space of the front yard, between fence and house. From the high point of the houses, there is a diagonal line touching the top of the fences and the centerline of the runway.

The street drainage is achieved with side channels that run parallel to the runway, a recurring detail in the street, showing an understanding of street design and planning sensitivity. This is in sharp contrast to the arrangement in the Old City, where the street was the 'left over' narrow space between two opposite buildings. The high fence had also a security function, since the colony was an isolated outside-of-the-walls entity, and there was, probably, some sense of frontier. The houses themselves and many large openings a disadvantage from the property and physical security point of view. In the fence, usually in line with the house entrance, was an opening, marked by two massive stone pillars, serving as anchorage points for the gates, whose hinges were fixed; but from the architectural point of view these openings marked the transition point between
public into private domain, and gave an opportunity to add a decorative element to the plain-looking fence.

_Stone dressing in Templer houses_ was of different types, depending on the position of the floors and types of openings. The basement was partly underground with a different stone dressing on the exterior. (Larger and rougher stones than the upper floors.) The walls of the basement were thicker that the upper floors for structural reasons, something that is usually visible on the exterior.

Photo 203 and Photo 204: Jerusalem, Rephaim, different dressing for the floors and quoins.
Photos: April 2001. The basement floor extends beyond the upper floors plane and is built with larger, rougher stones; the quoins and openings frames also differ from the wall surface, for enrichment and expression of the structural significance. Similar detail but from prefab concrete appears in Sarona and Wilhelma.
Photo 205 and Photo 206: Germany, different stones on the same façade.
Left photo August 2002, and photo in Bedal (2001), p. 116. Old houses in Tübingen (left) and in Schwarzenweiler. This treatment of stone façade was common in Europe for hundreds of years. The use of larger stones for the lower floor also created a sense of a fortified entity, and separation from the street level.

On the upper floors, the stone dressing becomes more refined. The corner and floor markers described above were always of a differing stone dressing, more accurately cut. The stone technology used in Jerusalem in domestic structures allowed only a narrow margin of coloring; the masons tried to compensate with different dressings, which provided different shades of the stone for enriching the façades. Sometimes transitions between types of stone dressings are sharp and accentuated, creating a special visual effect of contrast and texture. A typical example is the Ehmann's House (p. 284 above).

Stone Detail, the Schmidt Pension (8 Emek Rephaim Street): the stone brackets supporting the roof overhang are not typical of the houses in Rephaim.
Photo 207 and Photo 208: Jerusalem, Stone brackets in Schmidt Pension.
Photos: April 2001. The walls are rough *khaammi* stone, contrasted with accurate stone cutting for brackets and window frame moldings. The pointed arches, also not typical, borrowed from Arab structures in Jerusalem.

This was the second house built in the Colony, and it might indicate a more formalistic and refined approach to emphasize its importance. The joints (in Arabic *kokhleh*) are groove type (recessed), and also reflect an attempt to bring out the significance of the structure.\(^{568}\) My assumption is that presenting the building as a ‘dignified’ structure may have had to do with physical security; a house built more monumentally and officially, reflects power, available means, perhaps even association with the authorities, thereby deterring potential foes; this house stood almost all alone in an uninhibited area at a time when the security situation was not at its best.

*Iron fences, Grills and Latticework:* Almost all the fences on *Emek Rephaim* Street are stone, combined with an iron fence, made with alternating square and twisted iron bars tied with a horizontal flat bar, much in the same way

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\(^{568}\) Kroyanker (1985), pp. 389-391. The groove type joint was used in the more sophisticated construction, the projecting joint in simpler, rural structures.
as in Sarona, at the K. Steller house (see image p. 265 above). Almost all the ground floor windows have grills, anchored to the sides of the opening, for security reasons, considering the colony’s relative isolation.

Photo 209: Rephaim, iron gate, Smuts Street.

Figure 59 and Figure 60: Rephaim, grills, in Frank and Aberle houses.

Photos: April 2001 and drawing by Kroyanker, in Kroyanker (1987b), p. 116. The tops of the vertical bars usually have a spear-like tip; the lateral bars are flat cross-section with bores to receive the verticals. The gate usually has a solid lower part, as in Walhalla (see above), and is hinged to massive stone posts, decorated with a capital, to emphasize the entrance, a practice common in both Arab and Jewish houses. Thus the gate participates in the symmetry of the design. The latticework in the old houses is also coordinated with the joinery of the window. The same detail appears in the windows of the ‘Moscowia’ Abby in Jerusalem, built in the 1990s, suggesting involvement of the Templer blacksmith Bienzle in this project. Bienzle is credited for most of the ironwork items in the colony. His own house in the Colony still exists (6, Kremyeh Street).

Architects and builders in Rephaim: The colony was blessed with a considerable number of talented architects and masons. Among them: Thoedor Sandel, his son Benjamin Sandel, Hermann Imberger, Gottlieb Bäuerle, Gottlieb Bäuerle Junior, Friedrich Ehmann and Bruno Eppinger. In addition there were a number of German stonemasons, who participated in monumental construction

570 Kroyanker (1966a), p. 182.
571 The Bäuerles, educated engineers and builders; Bäuerle Jr. was among the trained personnel participating in the planning of the Hejaz Railway and built parts of it and a number of stations. He also designed, built and owned the Orient cinema next to his house (1928), still in use today. Sources: Kroyanker (1966a), (1996), p. 181; and Shilony (1988), p. 66.
projects outside the Colony, like Gottlieb F. Gohl (*1859 +1912), who received a citation from the German Emperor for his achievements as a master stonemason in the Augusta Victoria complex in Jerusalem (1906). In no other German colony in Palestine was there such a concentration of skilled experts as in Rephaim. What was the reason? Was it just coincidence? Hardly likely. The answer lies, probably, in the opportunities Jerusalem offered for this population: most of the monumental construction in Palestine was taking place around and in Jerusalem, by foreign governments and agencies (see European Construction Section p. 94 above); there was a constant demand for designers, surveyors, carpenters, stonemasons, and engineers of the highest standard.

Photo 210: Jerusalem, Templer Cemetery, stone of Christian Eppinger.
Photo: April 2003. Eppinger was a Templer merchant in the Rephaim Colony. His son, Bruno, was an architect, and studied in Germany in the early 1930s, trained in the International Style spirit. Bruno’s salute to his father was in the form of an International Style building, the shape he designed the stone. There are, however, no International Style houses in Rephaim Colony. Bruno’s son is also an architect and lived in Germany at the time of writing. The Eppinger family was related to the Hermann Imberger family, another Templer architect from Rephaim.573

573 Data by Horst Blaich, personal communication, April 30, 2003.
With the intensification of involvement of foreign powers in establishing a presence in the Holy Land in general (and in Jerusalem in particular), Rephaim became a magnet for such personnel. Templer architects and builders were even involved in the construction of Augusta Victoria Complex on the Mount of Olives, the most prestigious and ambitious German construction project ever to be built in the city.\footnote{Carmel (1983), p. 140; Meir-Merril (1997), p. 53.} On the other hand, these were people charged with deep religious feelings, (at least until the outbreak of World War I), who regarded construction of these structures as a mission, not merely a business opportunity. German architects, imported and local, designed and supervised construction of most of the Protestant German institutions, as well as Jewish public structures.\footnote{Kroyanker (1987a), p. 58.}

\textit{Aspects of Change in Jerusalem:} among the urban Templer colonies, Jerusalem was the one least changed. It had begun as a non-rural settlement, leaning for its economy on the opportunities the larger city had to offer. Templers, living in the Old City before the colony was formed,\footnote{Carmel (1990), p. 33.} slowly joined Frank (1873), in shaping it. As in other places, real estate considerations were a determining factor: these lands were low cost,\footnote{Carmel (1990), p. 33.} and available for purchase.

Along with the colony being a settlement for non-farmers, it was also perceived by the Temple Society leadership as a cultural and spiritual center, housing the Society’s educational institutions so economic changes in the region
had minimal affect on the colony's character. The area around it was unsuitable for agricultural development, and its economy, urban from the start, relying on trade, craftsmen, education, free professionals and skilled labor. This occupational mix persisted throughout the history of the colony.

In 1878, when Temple Society center moved to Jerusalem (see above in Temples Settlement Development Section), a number of settlers from Jaffa joined Rephaim, considerably expanding it, and by so doing, terminating the 'Settlement Period'; no new colonies were to be formed until the 'second wave' of rural settlement.

The significant change came with the railroad line to Jerusalem (1890s), preceded by improvement of the road to the City (1880s), and increased road security; This development coupled with the possibility of transporting building materials from the coastal plain, and introduction of prefab concrete products, railroad rails as construction material and reinforced concrete technology, generated changes in house design, though the basic characteristics remained. The use of steel beams enabled thinner walls; bearing walls no longer had to receive lateral loads; when reinforced concrete technology arrived, walls became even thinner. The colony came out of its isolation, becoming a service provider to the growing Arab and Jewish neighborhoods. The Rephaim

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579 See Ben-Arieh (1979), pp. 503 ff. for a detailed discussion on the impact of the railroad on the development of Jerusalem.
581 Schick (1897), p. 106, described this process, and explained the affect on the wall thickness when beams replaced the masonry vaults and crossed vaults.
area became a desirable spot and attracted more settlers. Eventually, in the years just before World War I, this situation became detrimental for the Jerusalem Templers: there was no more land reserves, the settlement could not expand, and remained the smallest of the four veteran colonies; perhaps, another explanation for the minimal building activity in those years.

**Interim Summary, Jerusalem Colony:** In Jerusalem there was no critical process of change as in the other urban colonies, because the colony was conceived from the outset as non-agricultural; the decision of the Temple Society leadership to turn the ‘spontaneous’ settlement into a formal one, was based on ideological recognition of Jerusalem as a part of the Temple belief system. This may explain the non-existence of International Style structures, even though the colony included many capable architects, masons, and other building trades personnel, and that in Jerusalem of the 1930s - outside of the German Colony - there were various International Style structures designed by non-Templer architects.

Another factor in maintaining consistency in Jerusalem in general as well as in the Rephaim colony, was the British regulation, issued in the first year of British control (1917), that all buildings in Jerusalem must have a stone facades; many of the German buildings following that regulation were built with concrete, but with stone cladding. Accordingly there was heavy effort invested in stone masonry: the appearance of neo-classical stone elements, and

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use of sculptured elements only in Jerusalem supports that observation. The Germans also regarded the stone masonry construction especially in Jerusalem as a cultural act, associating their architecture with the building heritage of the region while giving it their own interpretation and touch.

The settlers of Rephaim expressed their deep association with Jerusalem not only through the stone itself, but also through the Biblical texts above the entrances, the only occurrence of this kind (except Haifa colony), in first-generation Templer houses. Typically the Gothic text above the Aberle house is a quotation from Psalms 87:2: “The Lord loves the gates of Zion more than all the dwellings of Jacob.”
Wilhelma Colony

Map 28: Benei-Atarot, formerly Wilhelma.

Source: Nur (2000), p. 26. Bene-Atarot, located northeast of the Ben-Gurion Airport (the triangle in the lower left corner). North of Bene-Atarot are Be’erot Yitskhak, and Nekhlim, all on the lands which were once Wilhelma. The closest town is Petakh Tikva the first Jewish colony, (established 1878, pop. 200,000), north of Wilhelma land.

Local General Background: Wilhelma was founded in 1902, as an agricultural settlement. Financing came from Germany; King Wilhelm of Württemberg showed support of the Templers by donating funds, which allowed for purchase of the land. The settlers duly named their community Wilhelma, seemingly in his honor, although Kanaan (1968) determines that it was named in honor of Emperor Wilhelm II, who visited Palestine in 1898.587 The Templers

were lucky enough to have one name for, and gain the affection of both powerful figures.\textsuperscript{588} The full name was initially ‘Hamidiya-Wilhelma’, in honor of both King Wilhelm and the Ottoman Sultan. But eventually the name that caught on was, and remained, Wilhelma.\textsuperscript{589}

Wilhelma was among the colonies formed in the ‘Expansion Period’, 1899 – 1914, as labeled by Carmel (1990), when the Templers’ population reached its peak in Palestine, their number reaching 2200; their wealth and assets doubling by the end of this period.\textsuperscript{590} The colony developed rapidly: by 1910 there were already 33 houses, and a population of 190.\textsuperscript{591} In 1925, the number grew to 43 houses and 215 inhabitants.\textsuperscript{592} Between 1922 and 1931, the Jewish population of the country more than doubled, obviously affecting market conditions for all the Templers, Wilhelmians included.

\textbf{Wilhelma Settlement Design:} The settlement was designed by Templer architect and surveyor Theodor Sandel.\textsuperscript{593} The design principles, as outlined by Ben-Artzi (1996), and as can be interpreted from the parcel mapping of the settlement, were very simple but effective: a long main road, from northeast to southwest, crossed by two perpendicular secondary roads, creating a size hierarchy of parcels, the largest along the main road (about 10,000 Sqm or 2.47 acres each), the intermediate size parcels along the first crossing road (about

\begin{itemize}
\item \textsuperscript{588} Sauer (1991), p. 76.
\item \textsuperscript{589} Carmel (1990), p. 55 footnote 282; Sauer (1991), p. 100.
\item \textsuperscript{590} Carmel (1990), pp. 51-52.
\item \textsuperscript{591} Sauer (1991), p. 102; Carmel (1990), p. 55.
\item \textsuperscript{592} Sauer (1991), p. 156.
\item \textsuperscript{593} Ben-Artzi (1996), p. 123. See Sarona and Jerusalem Sections above.
\end{itemize}
2400 Sqm or 0.6 acre each), and the parcels along the second crossing road (about 10,000 Sqm, some sub-divided into smaller units of about 2000 Sqm).

__Photo 211 and Photo 212: Wilhelma, 1917; Benei-Atarot 1990 aerial photographs.\
Source: Kedar (1991), pp. 160-161. The 1917 photo was taken by the German Squadron 300, stationed in Palestine during World War I. The settlement retained its basic Sandel design: a main street and two secondary roads intersecting at right angle. The houses next to the road, the service structures and area behind the houses, farming lands further away.

As in Sarona, the public functions were located at the main intersection and the land allocated accordingly. Sandel also took into account the winds directions so that the orientation of the houses would permit breeze from the west to pass through to the east, thus cooling the maximum exterior surfaces.

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595 Ibid; Tumarkin (1988), pp. 107-108, describes how Erich Mendelsohn, the noted German Jewish architect, rediscovered the same considerations for climactic design in his buildings when he designed buildings in Palestine.
Source: Benei-Atarot Preservation Committee photo collection. The photo is signed by ‘Friedrich Imberger, Jerusalem.’ No trees appear yet; the topography is flat, the hills on the horizon are in Samaria. The British selected this region for construction of the international airport, in use until today. The climate here is more extreme than Sarona: warmer in the daytime, cooler at night.

**Architectural Expressions**: From the architectural perspective, the character of Wilhelma can be typified by the following components:

- Diversity of building technologies, ranging from adobe construction to reinforced concrete modern-type houses. In some houses several technologies were used at the same house.

- The wide use of prefab concrete elements.

- General resemblance to the simple first houses of nearby Sarona.

Relatively small number of sophisticated houses, in line with the colony’s rural character.
- The shift from ‘traditional’ to ‘international’ design, following the First World War.
- The presence of ‘community welfare facilities’: The Community and Teacher’s houses, kindergarten, communal dairy, communal co-op, agricultural school headed by Keller, a ‘festivities’ shed, guesthouse and restaurant (Frank), and the large irrigation tank used as a swimming pool, with dressing rooms, and diving board. Relative to the houses, public structures were more invested - in finishes, quality materials, and design.

**Wilhelma House Design:** Wilhelma is historically associated with the introduction of reinforced concrete to Palestine (see discussion herein).

In general, the same design characteristics which appeared in Sarona, appear also in Wilhelma. Usually the same roof details, the same materials, the same size houses, the same functional divisions, four levels, no Biblical texts above entrances, almost no water cisterns (one observed at the Ille-Beilharz house), because there was no need for them. The water table in Wilhelma was high, and settlers dug a well even before settling. Until today the entire area - located on an aquifer - is dotted with wells, some still active; a 100 mm water pipe system distributed the water to the houses.

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Among the first settlers to populate Wilhelma, were Templers from Russia, who brought with them adobe construction technology.\footnote{Sauer (1991), p. 192, describes the adobe houses the Russian Templers built in the first stages of the settlements in Russia, in Olingo and Romanowka, replaced later by stone houses with red clay tiles roofs.} This was a sensible construction method to be used in Wilhelma, at least in the first days of the colony, offering faster and cheaper construction than the soft limestone (\textit{kurkar}) used by local Arabs in the villages around the settlement. Evidently, the ‘German’ Templers were skeptical about the ‘Russian’s adobe construction, as surfaces from the memoirs of K. Beilharz.\footnote{Beilharz (2000), p. 13.} Other Russian immigrants, like the \textit{Sobotnicks}, built adobe houses in \textit{Yavniel}, \textit{Yesud Hama’ala}, and other mostly northern settlements,\footnote{Ben-Artzi (1988b), pp. 137-139. These were usually perceived as temporary structures unlike in Wilhelma. Other locations for this technology were \textit{Petach Tikvah}, \textit{Zichron Ya’acov}, \textit{Mishmar Hayarden}, \textit{Wadi Hanin}, and \textit{Benei- Yehuda}.} at about the same time.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{Photo_214.png}
\caption{Wilhelma, R. Eppinger House, adobe construction.}
\end{figure}

Photo: November 2001. The walls are plastered adobe made from local clay, ceilings and roof are wood construction. Walls are thick (40 cm; 16 in.) as part of this technology. The house was one of the first in the colony, built by a German - Russian family (Weiss). Eppinger bought the house in 1935. The house was used by German military (ca. 1917) as a field hospital.\footnote{Sawatzky (1911-1935), p. 56.}
This versatility of building technologies meant adaptability: using materials present on site, and the available (i.e. self) labor. The clayish soil was suitable for making adobe blocks. The next step was building with roughly-cut kurkar blocks, and plastering it over with stucco, as done in Sarona. Kurkar blocks are easier and faster to shape and do not need the same accuracy and skill as limestone masonry. The few houses built with limestone, used stone quarried at nearby Dir-Tarif.604

Photo 217: Wilhelma first houses, ca. 1903.
Source: Benei-Atarot Preservation Committee photo collection. On the right an enlargement of the left photo. The far house is not yet plastered over. There is no effort at the accuracy of the masonry, because the builders knew the walls would be plastered over. In the service structures next to the houses, the kurkar appearance was left unplastered.

Photo 218: Imberger House, Wilhelma.
Source: Benei-Atarot Preservation Committee photo collection. These houses were built of kurkar blocks, and plastered over. Right, old picture, same angle, late 1920s. (Thanks to H. Blaich).

This was the most common construction method in Wilhelma until the mid-1920s, and most of the houses on the main street are built this way. The next step was using reinforced concrete and steel 'I' beams, either rails from the railroad sites or imported from abroad as designated construction 'I' beams. These were used for overhanging projections from the houses, for balconies and as an alternative method of spanning ceilings with flat arches between the beams (for more on this technology see, pp. 308, 349). Sometimes the steel
beams would be used as lateral tensioning reinforcements to keep exterior walls from toppling over.

Another example of mixed technologies in the same house is the W. Hahn House, who was the colony's blacksmith, built his house in a mix of technologies:

Photo 219 and Photo 220: W. Hahn house, a mix of building technologies.
Photos: September 2002. Hahn used concrete, poured in place and prefab, soft limestone for the walls, wood structure for the roof, with metal bracings. The floor of the upper storey is made with steel beams, which allows minimal thickness for the floor. The hip-on-gable roof is used here to create a shadow on the upper porch facing southeast. For the rest of the upper floor, the space is full height. The close-up photo also provides an opportunity to see the wood substructure of a hip-on-gable roof.

Photo 221 and Photo 222: Wilhema, mixed stone masonry and wood structures.
Source: Benei-Atarot Preservation Committee photo collection. Houses were built primarily of stone, but some additions were made with wood; the service structures behind the house were also mixed construction in some cases, as in the large storage / granary structure above the cowshed above.
In Wilhelma one can find rare specimens of an Einhaus, ('unified house'), combined farming and living functions under one roof. Common method in Württemberg, in general not applied in Palestine.\(^{605}\) In fact, this was one of the major differences between rural houses in Württemberg and Palestine.\(^{606}\) It is not clear why this owner, P. Decker, decided on this setup; a study of the parcel map shows he owned a lot of 10,000 Sqm (10 dunams or 2.5 acres), the normal size for these units; so saving farming land was not a pressing issue; perhaps it was security, always a problem in Wilhelma, which determined his decision.\(^{607}\)

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**Photo 223 and Photo 224: Einhauses in Wilhelma.**

Photo: September 2002, and the Albert Blaich Family Archive, Australia. Left, the P. Decker house, right, Gerhard Decker house. The stable was built first, followed by the living area built in the 1930s. In both instances, the living section is plastered over, has big windows, shutters, and faces the street side. In the right photo, the cows are visible. (Thanks to H. Blaich).

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\(^{606}\) Ben-Artzi (1996), p. 181; see also Rapoport (1969), p. 9, where he spotted the same setup in the Japanese Farmhouse, the Kabylie, and similar objects; and p. 35, where Rapoport follows the diagrams of Weiss et al in the French and Swiss Farms.

\(^{607}\) Sauer (1991), p. 101; Sawatzky (1911-1935), p. 49; Carmel (1990), pp. 141-144 described an unstable situation in Wilhelma and Sarona around 1909, following the fall of the Old Turkish Administration, in which locals became a physical threat in addition to property security.
Photo 225 and Photo 226: *Einhäuses* in Württemberg; Donnstetten and Kirschenhardthof.

Photos: August 2002. The house in Donnstetten is laterally divided, and the difference in the types of roof tiles and slopes suggests that it ‘developed’ over years. The house in Kirschenhardthof is longitudinally divided, the living space on the first floor above ground floor. It is likely that this type was built as a complete unit from the outset.

The International Style version of Wilhelma was modest and unpretentious compared to the later houses of Sarona (See above). The houses of M. Vollmer, F. Kazenwadel, W. Wied and J. Decker below represent a practical, simple and feasible architectural solutions, matching the means of the farmers and providing for a modern comfortable lifestyle; some visuals were transferred from old traditional Templer houses and were re-interpreted in the new type houses: the belt course, the thicker basement wall, in some houses prefab elements, the wooden shutters, and other details.

Photo 227 and Photo 228: Wilhelma, Vollmer and Kazenwadel Houses.

Photos: May 2001. The Vollmer House served as a hospital in World War II.
Architectural Detail in Wilhelma: since Wilhelma was a rural settlement, like Sarona, house design and detail were also similar. There is evidence that master builders from Sarona like Pisch and Wennagel were active in Wilhelma, and also that in Wilhelma there were building trade personnel, including an Arab employee of Beilharz, who was in the construction business.

In the Bienzle house, we find various materials, making an integrated blend: concrete, stucco, iron, glass, and wood. No evidence was found that the same master plasterer from Sarona, Hans Pisch, was responsible (see the Haering house in Sarona above) for the design and application; however the quality (and durable) work speaks for itself.

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609 Beilharz (2000), p. 11 describes Chalil, “Dad’s chief mason and a very good worker”, who could “drive a 70 mm nail into a piece of softwood with his bare hand.”
The ‘cloud’ application of the stucco is a substitute for the richness which the limestone texture provides, but which was not readily available in Wilhelma. The gable ends with poured-in-place concrete coping, provide an effective seal between the gable wall and the roof construction; the balcony is supported by the same brackets as in the schoolhouse, probably from the Wieland factory. The balcony floor is a thin prefab concrete slab, with rounded corners to avoid chipping. The ornamental elements are the industrialized ones: the prefab concrete molding and brackets, and the iron banister, recalling the Breisch house latticework in Walhalla, both manufactured elsewhere and assembled on site. The gutters and downspouts usually resembled those at Sarona: not concealed as in Haifa inside a stone detail, they were mounted just below the first line of tiles. The downspout is mounted on the side wall, to create a clean main façade. The material was zinc plated metal sheets, or pure zinc, (common in the 19th Century and revived practice lately).

A common detail in flooring was the flat floor arches (see in Technologies Section, p. 349), applied in Wilhelma and other Templer and Jewish colonies, once the rails and “I” beams became available in the 1890s. The following sequence describes the construction of the floor arches:
Freehand drawings March 2003; photo February 2001. 1. Leveling the rails on the bearing wall usually on a heavy stone, 60-80 cm apart. 2. Using a form for the arch curve, resting on the flanges of the beams. The form does not have to be the entire length of the span, and can be moved along the rails once the arch stabilizes. 3. Laying the arch stones, usually hollow fired clay blocks, to save on weight, and positioning the blocks or bricks with a cementing mix. 4. Once a span is completed, the same method applies to the next span. 5. Topping the floor with debbesh, and leveling it off. 6. Once the topping is dried out, the floor finish is applied, either floor tiles or (as shown) hardwood planks.

The **prefab elements**, produced by the two Templer manufacturers, appear also in Wilhelma. This may seem odd, since the Wieland factory was only 15 Km away, while the Beilharz factory was 100 Km away in Haifa. The fact that Haifa products were used suggests that F. Beilharz from Wilhelma preferred his family products from Haifa over the local ones.
The prefab elements are in the spirit of the historical structures seen in Jerusalem. Quoins and belt courses are made of high quality concrete emulating roughly dressed stone, and used structurally in the same manner as real stones were used in Jerusalem.

**Photo 237 and Photo 238: Wilhelma, G. Löbert House and Ille-Beilharz stable, details.**

Sources: photograph courtesy of the Löbert family collection (thanks to Prof. U. Yinon); and photo February 2001. In the Löbert house the prefab elements were used decoratively in addition to the structural function. In the Ille-Beilharz stable, a back yard service structure, prefab elements were lower quality, used only to stabilize the edges of the opening. The use of these elements was cheaper than cutting kurkar or limestone blocks, and the whole structure walls are built with uncut rubble stone.

*Stone fences* in Wilhelma were, in the first phase, almost all alike, made of thick rubble stone walls (50-60 cm thick), wider at the base, and topped with a cementing mix, rounded or pointed. They became a visual unifying the settlement’s look, offering the same repetitive detail in many locations within it, as did the concrete prefab elements.
Photo 239 and Photo 240: Wilhelma, stone fence at the Edelmeir House and main street.

Photo May 2001, and Benei-Atarot Preservation committee photo collection. The spot where the gate was installed, was usually in line with the entrance, enhancing the symmetry and the entry sequence. Similar stone fences were also in Rephaim Colony. The fence and trees become part of the settlement design, where the space between them becomes a pedestrian axis, the trees separate between the pedestrian and vehicle axes. The fence also separates between the public and private spaces, creating a buffer between the house and the street. The fence was also used, as seen here, as separation between parcels.

*Interim Summary, Wilhelma:* In Wilhelma the architecture is a very transparent, indicative of the changes this society has gone through. The settlement remained mostly agrarian until it ceased to be a German settlement and became the Jewish *Moshav Benei-Atarot*. Even today (2003), significant number of inhabitants are farmers. The changes were subtle but noticeable; on one hand, change in architectural design, on the other hand, changes in building technologies. The change in design, from traditional Templer architecture as it was in the first years of the settlement to ‘International Style’, is similar to what could be seen in the Jewish settlements, in the years following World War I. It occurred simultaneously with the weakening religious affinity of the younger Templer generation; the growing numbers of Templers who were not farmers anymore; the change in the political system which was now British – i.e. less confining in terms of building rights and encouraging development; the
increasing availability of new building materials and technologies; the inflow of European architects and engineers educated in the spirit of *moderna*. The same process occurs in all Templer Colonies.

In Wilhelma, the International Style houses were not as splendid or sophisticated as in Sarona. The houses were good quality construction, some even surviving in good condition until today, but were simpler, devoid of the design effects of their Sarona counterparts: no exposed beams, no big vertical windows, very few projections. They did, however, contain all the conveniences of a modern home: integral kitchens, toilets and bathrooms, big windows, roofed balconies, spacious rooms floored with decorative floor tiles, fresh water supplied from pipe systems and fixtures like taps, shower heads, tubs and stools. This was International Style but in its simple honest introductory form, in line with the general character of the colony: after all, a modest farming settlement.
Betlehem - Waldheim

Map 29: Betlehem, Waldheim and vicinity
Source: Nur (2000), p. 13. The colonies are now renamed Alonei Aba and Bet Lekhem Haglilit. The distance between the two is about a mile. The closest town is Nazareth, to the east. This is a hilly, naturally wooded with Tabor oaks region, on the northern edge of the Jezreel Valley.

Local General Background: The first attempts to settle the Holy Land by Templers was carried out on the hills of Gingar, Semunje, Khneipes, and Majdal, in the Jezreel Valley, between 1860-1868, not far from Betlehem (spelt thus to differentiate it from historic Bethlehem), and Waldheim. These attempts failed, as is detailed by Goren (1987), in his description of the hardships of the settlers and reasons for their failure.611 The Jezreel valley was to become a settlement arena for the Templers (and their Kirchlers Evangelical colleagues)612 once again in


612 In 1874 Hardegg and his followers resigned from the Templer Community and returned to the Evangelical Church, creating a secondary group of non-Templers, called Kirchlers, (‘Church goers’) {Carmel (1988), p. 3}. These founded the Waldheim and Jaffa Communities {Carmel (1990), p. 50, 57.} There was a connection, however, between the two populations, as described by Carmel, the Waldheim settlers were “[…] mostly Templers and sons
1906 and 1907, when a positive attitude in Germany towards German settlement in Palestine was to make the financing of Betlehem-Waldheim settlement possible. On August 1906, 7,033 dunams (1737 acres) of land were bought to establish Betlehem: 4,720 dunams (1165 acre) of farm land, 2070 dunams (511 acres) of forest land, and 238 dunams (59 acres) for streets and houses. The purchase of the lands of Waldheim followed in a year later, consisting of 7200 dunams (1778 acres). Maps based on the Imberger Map (1938) show a territorial continuity between the two settlements, but two distinct built clusters about a mile apart.

The reason for starting two separate communities only a mile apart was the ideological and theological split within the Temple Society: the Hardegg group separating from the Society and forming the Evangelical-affiliated Kirchlers group (see p. 66 above). Eventually the two communities would cooperate, in mutual projects and economy, retaining their rural character throughout, and not growing much beyond the first construction phase: in Betlehem, by 1910 there were 16 buildings, in Waldheim 18. In the years after World War I, only three more buildings were added in Betlehem.

Like Wilhelma, these two colonies were formed in the ‘Expansion Period’ of the Templers in Palestine, 1899 – 1914, and completed the Templers’

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settlement venture. The later Beisan farms (mid 1920s, see discussion herein), never developed into a settlement. The two Jezreel Valley colonies were small communities; they never developed into sizeable settlements, for a number of reasons, described by Carmel (1991), who observes that by the start of World War I, these two colonies have not reached an independent existence and consolidation.\textsuperscript{620}

Other reasons for their limited development, which might explain the small number of built houses, were slow land registration procedures, hence the reluctance of German inhabitants to go ahead with investments; the concern of the Turks about allowing foreign settlement next to the Hejaz railway; epidemics; wartime conditions and mobilization of German men to the German military;\textsuperscript{621} in addition, the tight budgetary conditions of the colonies with some of the settlers needing to lease out land in order to finance their investment, created a very slow construction process.\textsuperscript{622} By the time the overall situation stabilized, the war ended, and the country taken over by the British, there was already no more Templer immigration and their population ceased to grow. There was no need for more construction in Betlehem and Waldheim.\textsuperscript{623} New, modern construction took place in the ‘urban’ colonies, such as Haifa, Sarona, and to a lesser degree in Wilhelma, the only non-urban colony with modern style houses.

\begin{flushright}
619 Carmel (1990), pp. 51 ff.
620 Carmel (1990), p. 57.
621 Carmel (1990), p. 57.
623 Uri (1951), pp. 36-37, describes changing conditions in these colonies.
\end{flushright}
These factors combined caused the two Jezreel Valley colonies to ‘freeze’ in time, remaining representative of a relatively short construction period. The architectural effect was very noticeable: both colonies, especially Waldheim, produce a very sharp ‘sense of place’, ‘Genius Loci’ effect.

**Photo 241: Bethlehem, as viewed from Waldheim.**

Photo: September 2002. The photo reflects the hilly character of the location and the rich natural Tabor oaks vegetation. Detailed description of the geographic conditions of the two colonies and their relations with the neighboring Jewish settlements is provided in Uri (1951), pp. 35-40.

**Bethlehem-Waldheim Settlement Design:** Being the last two settlements founded by the Templers in Palestine, proved an advantage for these colonies. By that time the Templers had gained considerable experience in settlement founding, and possessed the human resources with which to implement it: architects and surveyors like Gottlieb Schumacher, and Ernst Voigt. Both settlements were established on higher elevation spots above the Jezreel Valley, close enough to the Valley’s fertile farmland and the rich natural forest on the hills, but removed from the then disease-stricken areas in the Valley itself. Both locations had an abundance of lime bedrock, suitable for excavation and
construction, not of exceptional quality, but good enough for construction, and for those who could afford it, better quality stone had to be and was brought in from the hills of Qabatya in northern Samaria.

The physical planning of both colonies was simple: in Bethlehem, one long street (770 meters) and 12 m wide, crossed by a 200 m perpendicular street of the same width. The lot sizes varied, due to varying topography. As in most colonies, the intersection of the two streets is dedicated to public buildings. The orientation of the houses takes the wind directions into account. In Waldheim, a German surveyor, Ernst Voigt, carried out the planning. Here too the setup is two perpendicular streets, with similar dimensions, and the same positioning of public buildings at the intersection of the two streets.

Map 30: Waldheim, detail from a map with owners’ names.

Source: The Albert Blaich Family Archive, Australia, courtesy of Horst Blaich. All the public functions are concentrated at the intersection of the main and secondary roads: the church, school, dairy, park and community house, which contained a guard room, kindergarten, bakery, and blacksmith’s shop.

**Architectural Expressions:** From the architectural perspective, Betlehem and Waldheim can be characterized as follows:

- Small settlements, small number of houses.
- Wide use of prefab concrete elements.
- No ‘International Style’ houses.
- Imported building details, i.e. the latticework and chimneys.
- In both settlements, trees used as part of the architectural design.

The most interesting architectural characteristic in the two colonies is that, although they were the last to be built, there are no ‘modern’ buildings; on the contrary: in some of the buildings, there is an expression of ‘orientalism’, with elements borrowed from the Arab neighbors, and interpreted locally by applying modern building technologies. At the same time, certain details were imported from Württemberg, such as the artistic latticework, found in Württemberg, in the village of Lochgau. The same may be argued for the painted floor tiles, manufactured by the Templer factories, whose designs (at least some of them) were copied from similar products in Württemberg (see p. 427 herein), and the chimney design.

**Prominent structures:** Waldheim is the more modest and simple, and its houses appear following a unified convention, of local stone, two slope clay tiled
roofs, boxy, symmetrical in plan and façade, gable roof, stone gutters, no
decoration, closely resembling the first houses in Haifa, perhaps because the
settlers were second-generation Haifa-ites. Houses in Bethlehem were much
more diverse, and vary in design expression, size, and individuality, conveying
an impression of greater affluence. The only explanation of these distinctions
might be in the religious background of the two communities; all other factors are
the same: they were formed at the same time, the economical setup was the
same, the geographic location and its local conditions also the same.

In the Photo above, like other houses in Bethlehem, the house is typified by
‘oriental’ and ‘modern’ visuals. The full arches, ‘toothed’ parapet, triple opening in
the center accentuated by the false gable, are all local syntax; the concrete
columns and the flat roof made of poured-in-place concrete, and prefab elements
are modern expression. This mix is expressive of the seam-line between the old
and the new building traditions.
In the photos above, both houses show elaborate detail, complexity, exceptional size, and cross gable roofs. The Beilharz house has the only appearance of the Württemberger hip-on-gable roof in the colony. Both houses have the same fence detail. This kind of houses cannot be found in Waldheim.
Source: Albert Blaich Collection, Australia, courtesy of Horst Blaich. All three pictures show a very basic, modest, utilitarian attitude toward building construction. Stone cutting is minimal, wooden stairs, use of prefab concrete elements in an effort to minimize costs; in the Deininger house the farming unit was attached to the living unit with a common entrance.

Photo 249 and Photo 250: Bethlehem, Sebastian Blaich House, before and after changes. Sources: Albert Blaich Family Archive, Australia, and photo March 2003. The house started as a simple structure, with an intention to add later more rooms. The balcony is located at the future center of the façade and, in the window below the balcony, room has been left so a door can be built. The gable side in the old photo shows blank openings for a future connection. By the time the Blaich family built the addition, symmetry was not that important, and was not maintained. They resorted to the more traditional morphology, perhaps as an indicative of more dignified design detached from the simplicity of farmers’ architecture. The roof in the old section was replaced. (Correspondence with H. Blaich, Australia, March 2003).

Architectural Detail: In Bethlehem, the architectural detail follows the elaboration of the houses, as seen in the images below,

Photo 251, Photo 252 and Photo 253: Bethlehem, architectural details. Photos: March 2003. The sophisticated detail is in the industrialized elements, manufactured elsewhere and assembled on site: prefab concrete components, wooden shutters, and windows. The masonry enhanced by the concrete jamb-stones, arches, sills and lintels. The kneeler stones and saddle made of concrete were used for practical reasons,
to achieve the accuracy needed for the gable and for overlap of the saddle stone with the last cut stone. This was also a common masonry practice in the U.S.626

In both colonies, the detail of this latticework was found in several locations. The design is copied from Germany, and was spotted in Lochgau, Württemberg. The local blacksmith, Hans Sus, a resident of Waldheim, probably made the items in the blacksmith’s shop, attached to his residence (see image below).

Photo 254: Latticework in Lochgau, Württemberg.
Photo 255: Latticework in Bethlehem, Krockenberger house.
Photo 256: Latticework in Waldheim, the F. Unger Complex.

Photos: August and September 2002, March 2003. These were usually used on small openings, while on large openings conventional latticework designs were used: vertical round bars tied with flat horizontal bars.

Photo 257 and Photo 258: Waldheim, grill, and Sus’ house and blacksmith’s shop.

Sources: March 2003 and the Albert Blaich Family Archive, Australia. Similar grills were used in Jerusalem in the 1870s.627 The grill detail appeared later (1930s) in British public structures, such as ‘Tegart’ police stations, the Survey Office in Tel Aviv, and others.

626 Huntington (1967), p. 211, Fig. 25-2 (e).
The chimney detail follows the same detail used in Haifa and applied both in Betlehem and Waldheim, a simple prefab concrete shaft topped with a flat or low pyramid cover, sometimes with an added decoration, but mostly plain.

Photo 259 and Photo 260: Betlehem, chimneys.
Photo 261 and Photo 262: Waldheim, chimneys.

Photos: March 2003. In both colonies, the chimneys were about the same, resembling chimneys in Haifa and other colonies, and a similar detail in Württemberg. The similarity in detail was regardless of the sophistication of the house.

Other interior details show high level of craftsmanship, as in the Wagner and the W. Beilharz Houses in Betlehem:

Photo 263 and Photo 264: Betlehem, stairs at the Wagner House.

Photos: September 2000 (thanks to Kobi Fleischmann). Wagner used different types of stairs in the same house; left, stairs to the basement, right, stairs connecting the ground floor and the first floor. This was the representative flight of stairs, leading from the outside to the living room, and is made of hardwood with particular care. The other flight was a service

item and could be made with prefab elements, more resilient to moisture in case the basement is flooded. The images also gives us a chance to see the floor construction: poured-in-place concrete with steel railroad “T” beams as secondary beams.

Photo 265 and Photo 266: Bethlehem and Waldheim, windows.
Photos: September 2000 and March 2003. The window on the left is in the living room of the W. Beilharz house in Bethlehem; the one on the right from the J. Sickinger house. The Sickinger window was typical of many houses in all colonies, consisting of two leaves with side hinges and an upper leaf for ventilation with bottom hinges. The wood shutters were two leaves, each leaf divided into three parts, independently adjustable. The grill, if mounted, was located between the glass and the shutters. In the Beilharz house the arched upper part was fixed, with colored glass, similar detail with a different design was found in the Sandel house in Jerusalem (see above). Although made of wood, these items survived in excellent condition.

Interim Summary, Bethlehem and Waldheim: The period of World War I was a buffer between two major periods in the Temple Society history and the history of the region: the transformation from Ottoman to British Rule; the two colonies did not make the transformation insofar as architectural development was concerned, as was true for most Templer Colonies; the profound regional changes did not affect Waldheim and Bethlehem: they remained rural settlements, they did not grow significantly in number of structures, and showed no appearances of the International Style. The houses remained

traditional, mostly rural in character, although as evident in the data collected, some houses were fairly elaborate in detail, size, design and modern materials and technologies.

The generally uniform architectural character of Betlehem was enhanced by the use of repetitive visuals such as stone fences, use of local stone in the structures, certain detail (like chimneys), and aggregation: most houses were clustered together, creating a built up continuity.

In Waldheim, there were almost no stone fences, but the aggregation and the use of local materials created the same uniformity. In both settlements the use of planted trees was regarded as part of the settlement design; both settlements are isolated and in the midst of a natural forest region, which enhances the ‘sense of place’ effect by contrast: the big trees, the sudden switch from countryside to built-area, the clearly identifiable center of the settlement, and the overall impression that the colonies make: quality structures, conveying European convenience, well-being, and good standard of living.

A Templer descendent, whose grandfathers had houses in both Waldheim and Betlehem, was asked about the differences between the houses in the two colonies. His observation match ours:

It was mostly their religious attitude[s] that made the difference. This may have been because they were more conservative and humble in Waldheim, devoting their energy more to a Christian life, I know from my grandfather Katz in Waldheim how pious they were compared to my grandfather’s [Blaich] family in Betlehem. I think the Betlehem farmers were
more concerned about showing that they could make it in the commercial world, and their energies were devoted to the success of their agricultural pursuit. Not that Waldheim was less successful. I noticed that even now, [in Australia] the descendents of the Ungers, Katz, Deininger, Sickinger and Staib are somewhat more humble and inward-looking and [concerned with] justifying their actions to God, whereas the descendents of Betlehem [people] pride themselves of their commercial [material] success.\textsuperscript{629}

\textsuperscript{629} Correspondence with Horst Blaich email dated March 17, 2003.
Beisan

One of the least known episodes concerning the Templers in Palestine is the story of their settlement in Beit-Shean Valley. Beisan, as the Germans called it, was not a Templer settlement, but because it influenced to some degree Israeli Architecture, it has its place in here.

Base Map source: Nur, (2000). p. 21, 25. The Wieland (upper arrow) and Kopp (lower arrow) houses were located east of Road no. 6678 between today’s Sde Eliyahu and Tirat Zvi. The winding line on the east is the Jordan River. The distance between the two farms: 2.0 Km (1.2 miles).

Local General Background: The lands of the Beit-Shean Valley became available for settlement in the 1920s, when the region was already under British control. These lands, formerly considered ‘Lands of the Sultan’ (Private property
of the Ottoman Ruler, in Turkish giftlik),\textsuperscript{630} were then distributed to Arabs during 1922 as private property.\textsuperscript{631} Suddenly hundreds of Bedouins and falakhin (Arabic for farmers) became property owners for more land than they could possibly farm.

This situation triggered movement of land transactions; some Bedouins who sold land to pay for the taxes the British demanded;\textsuperscript{632} others wanted to use the money for seeds and farm the rest of the land. Thus, estates of over 1000 dunams (247 acres) were allotted to single individuals. Some were part of agrarian projects, which failed due to lack of experience and agricultural know-how, plus the prevailing problem of property security, i.e. the Bedouins “custom of stealing and robbing everything possible”.\textsuperscript{633}

\textbf{The German Involvement:} In the mid-1920s, German settlers (except for one, all others were Templers), bought land, for settlement and possibly for speculation, from the Arabs in Beit-Shean.\textsuperscript{634}

Bar-Giora and Yossef Weitz reported that the Germans bought “hundreds of dunams” at a very low price from the local Arabs.\textsuperscript{635} The individuals known to have purchased land were the Wieland brothers: Karl (*1879) from Sarona,

\begin{itemize}
\item \textsuperscript{630} Avneri (1979), p. 111.
\item \textsuperscript{631} Safrai (1979), pp. 15-16. Safrai described the land distribution, each family received a Fiddan [from Turkish] of land (150 Turkish dunams = 137 metric dunams. 1 metric dunam = 1,000 square meters = 10,760 square feet.)
\item \textsuperscript{632} See also Weitz (1934) p. 57, on the difficulties of Arab land-owners in paying dues on the land.
\item \textsuperscript{633} See Kark & Garber (1982) pp. 113-116 for discussion of the Giftlik Lands issues, their mapping and status; See also Weitz (1934), p. 58, where he associated the agricultural failures with the need to sell land; Weitz (1934), pp. 56-57; Nir (1967), p. 119; Avneri (1979) outlined in detail the events of distributing the lands to local Arabs in the early 1920s;Yair (1985-6), pp. 31-32.
\item \textsuperscript{634} Nir (1967) p. 127. Nir defines ‘speculative settlement’ as “lands cultivated not by the owners, not for the purpose of settlement but for making fast profit.” Nir counted five farms in Beisan in the 1930s, all sharing common borders, but not constituting a concentrated form of rural settlement.
\item \textsuperscript{635} Weitz (1934), pp. 59-60; Bar-Giora (1956), p. 31; Nir (1967) p.120.
\end{itemize}
Rudolf (*1882), and Egmont (*1886) from Jerusalem (later returned to Germany); the brothers: Karl and Friedrich Kuebler from Sarona; Gustav Bäuerle (*1883) from Jaffa; Paul Beck (*1889) from Haifa; Erwin Kopp (*1900) from Wilhelma; Marga Meinhardt, Oscar Dietrich (*1899) and Professor Dr. Eberhard Gmelin, director of the German hospital of the Kaiserwerther Diakonissen in Jerusalem. There was one other non-Templer to join the project: Hermann Bayha, a Swedish national and a cousin of Dr. Gmelin. All the known birth dates indicate that these were ‘second generation’, probably-born-in-Palestine, Templers.


The same figure appears in Weitz (1965). The Treaty signed in Bonn on April 1965, between the Australian and the German governments, shows even more land outside the farms: 3.5 dunams in the town of Beit-Shean, 28.5

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636 Levy (1998), pp. 107-108. Gmelin was brought to Jerusalem by the Hospital administration in 1925 to replace a Jewish doctor, Bisskind, who passed away. Gmelin was appointed director of the hospital but returned to Germany in 1939 and died there shortly after his arrival.
638 Data from Yair (1985) and M. Higgins (personal communication February 2002).
dunams in what is today Kibbutz Hamadia, northeast of Beit-Shean.\textsuperscript{644} Settlers known to have built houses on these lands were: Kopp, Wieland, Bayha, and Kuebler. Out of these, only two lived in Beit-Shean (called by the Germans Beisan): Rudolf Wieland and Erwin Kopp. Wieland acted as on-site manager of estates held by the others.\textsuperscript{645}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure}
\caption{Zons’ Drawing of the German Settlement at Beisan.}
\end{figure}

Freehand scheme by Yehuda Zons, a Sde Eliyahu member, showing the layout of the houses the Germans built. View from north to south. The Wieland house is marked “1” on the middle of the left margin. Kopp and Bayha houses are next to each other, marked “3” and “4” on the left side of the upper margin. Kuebler House is marked “2” in the center. Sde Eliyahu actually started at the Kuebler House, located at the center of the kibbutz lands. (\textit{Sde Eliyahu, 40 Years} p. 31.) Nothing remains of the Kuebler house. South of the Wieland house there is an indication of part of the Washingtonia palms that stretched from Wieland House towards Kopp House. West of Wieland House is a date palm grove, planted by Wieland or Kuebler. Some of these trees still exist on the land of Sde Eliyahu.

\begin{footnotesize}
\begin{itemize}
\item\textsuperscript{644} Australian Treaty Series, 1966 No. 3, Annex 3. The treaty concerns lands not sold by the Germans, and considered negotiable, so that compensations paid by the Israeli government for German secular property could be divided between Germany and Australia proportionately.
\item\textsuperscript{645} Yair (1986), p. 31, quoting letter by Herta von Behrens, Carl Wieland’s daughter written to E. Nakhshoni on December 11th, 1983.
\end{itemize}
\end{footnotesize}
**Beisan Settlement Design:** a settlement or a cluster of farms? This form of settlement was new in the region: farming as a ‘plantation’, a new form of land-use, at least in that part of the country. Land was cultivated by hired workers, residents of nearby villages, or tenant farmers.646

![Photo 267: Germans in Beisan.](image)

Source: *Sde Eliyahu* archive. Left: Germans at *Beit-Shean*, no known date. From left: Karl Kuebler, Fritz Kuebler, and Rudolf Wieland. The figures were identified by the TGD March 2002; photos were donated by Louise Kopp to E. Nahksoni from *Sde Eliyahu* while corresponding when he studied German settlement in Beit-Shean. The German settlers studied their neighbors, their methods of building construction, and had command of Arabic. Right: Germans studying adobe-block construction, no known date, source: *Sde Eliyahu* archive.

K. Imberger from Wilhelma describes, in 1938, the German colonies in Palestine, including *Beisan* as one of these. Imberger notes that *Beisan* settlement setup differs from all other German colonies: unlike the rest of the German colonies, the *Beisan* parcels are not lined-up along a street. Some single buildings are closer than others, but without a systematic settlement design. Imberger calls the houses “the new colony near *Beisan*”, though the

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German property was composed of a number of large parcels which did not always have territorial continuity.647

**Questions as to the settlement’s purpose:** Various questions regarding the purpose of the German settlement remain unanswered. Was it ‘German commercial sense’ that guided buyers to acquire land at ‘rock bottom’ prices? Did they intend to form a new colony, in the same format as the other colonies? Were they looking for a remote location so that intelligence operations could be carried out undetected?648 Yair (1986) did not provide a definite answer, concluding that, “[…] we will never know the truth.”649 In a letter by Wieland’s daughter to a Tirat Zvi member who studying the Germans’ history in the area, Herta von Behrens writes about the settlers’ motives, indicating perhaps a search for ‘living space’.650 Erwin Kopp from Wilhelma started his Beisan venture following a disagreement with his father about managing their Wilhelma business.651

**Interim summary, general background, Beisan:** The volume of the land purchased, even considering the low figure of 2000 dunams, suggests an intention of starting a new community. The fact that high quality houses (see p. 336 herein) were built, suggests that a long stay was intended. The road

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648 Both Nakhshoni (1989), p. 25 and Yair (1986), p. 32, (both writers from neighboring Sde Eliyahu and Tirat Zvi), write about the hypothesis that Wieland was in fact a German Intelligence operative. Neither reached a definite conclusion.


651 Sawatzky (1911-1935), p. 76.
connecting the two houses in a straight line and lined by dozens of palms, can be regarded as an effort to create the infrastructure of a community.

**Photo 268: The Washingtonia palms south of the Wieland Site.**

Photo: February 2002. The palms, planted by the Germans, became one of the most notable visual features in the region. The concentration of trees on the left is the Wieland site.

**Map 32: 1941 British map 1:20,000 Sde Eliyahu – Tirat Zvi.**

Source: 1941 British 1:20,000 map of the spot, revised 1954 by the Israel Mapping Center. The palms were a distinguishing feature which appeared on the maps. The Wieland House is marked north of the round reservoir; still intact at the time of mapping, although by the time the map was published it had already been demolished.

The relationship between the Germans and their Jewish neighbors was friendly and cooperative. They exchanged ideas and experiences in agriculture, architecture and mechanics, all of which suggest, again, that the Germans thought in terms of a long-range stay, perhaps some active cooperation with the Jewish settlers, such as developing land together, or indulging in intensive, volume-based agriculture, and anyhow stay on a permanent basis.

**The decline:** there is interesting background data pertaining to that period: in the spring of 1936, Bruno Wieland from Sarona initiated a move to settle

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652 Nir (1967), p. 127: “... From this [German] period remains the palms avenue, east of Sde Eliyahu, giving the area a special character”.

Templers in former German colonies in Southwest and East Africa; it was the time of a Jewish boycott of German (Templer) goods; the Temple Society leadership itself started to collect money in an effort to acquire settlement land for the young generation. By 1935, farmers from Sarona and Jaffa had already bought land in Cyprus; by the summer of 1937, 20,000 dunams had been bought in Lebanon, there were contacts with Emir Abdullah for massive land purchase in Trans-Jordan (Today is Kingdom of Jordan). The general security situation in Palestine was worsening, tension increasing between Jews, British and Arabs. The British built a police point, near the Kopp House, (called the Khunizei Police) to protect the Germans and their property. By March 1938, tension between Jews and Arabs had greatly intensified. In a letter, Rudolph Wieland writes to his brother Karl in Sarona, describing his own experience and his attempt to help the Jews.

All this points at a feeling of uneasiness among some of the Templers. Were they looking for new alternatives for relocation? Were they apprehensive about the growing antagonism towards Germans? This larger context needs to be considered as background for the departing of the Germans. Perhaps agricultural failure was only one of the reasons for the liquidation of their farms and their sale to Jewish settlement institutions. The political situation, by the end

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657 Bar-Giora (1956), p. 33. According to Nakhshoni (1989) p. 23, the police point was located in the Bayha house, (vacated at this point), near the Kopp house.
658 See Letters, source: archive of Tirat Zvi.
of the 1930s, and the looming war, were, in all probability, the final cause.\footnote{Nir (1967), p. 127.}

Louise Kopp writes about their leaving, “[…] Shortly before the first harvest we had to leave because of the disturbances between the Jews, the Arabs and the English. We were asked by the German Consul to leave, as they could not take responsibility for us. We went to East Africa […].”\footnote{Letter by Louise Kopp to E. Nakhshoni, March 1st, 1984 source: Letters, archive of Tirat Zvi.} [Translated by M. Higgins].

The houses the Germans built in Beisan are no more. The Germans left secretly, in March 1939, after selling the property to the KKL,\footnote{KKL = JNF = the Jewish National Fund, established in 1901 for purchasing land in Eretz-Israel for the Jewish People. See Shilony (1998), pp.158-168 for detailed description of these moves by the JNF.} despite opposition from the Palestine Nazi Party representative.\footnote{In a letter sent (probably) by the Nazi Party to Rudolf Wieland, July 26th, 1937, the sender advises Wieland not to sell unless the Party and the Reich approve. Wieland (and other Germans) sold the property anyway, disregarding the warnings. Source: Letters, archive of Tirat Zvi; see also: Nakhshoni (1989) p. 26.} The negotiations, lasting a few years, were accelerated by 1939, when it became clear to the Germans that the war in Europe was imminent, and local hostilities likely to develop. Most of the property was exchanged for Jewish property in Germany, with the involvement of the Ha’avara.\footnote{Ha’avara = the organization in charge of the economic interests of German Jewry. See Sauer (1991) p. 220 ff. In August 1933 two organizations were formed: in Palestine, the Trust and Transfer Office Haavara Ltd., (called Haavara, ‘transfer’ in Hebrew), and in Germany, the Palästina Treuhandstelle der deutschen Juden GmbH, shortly known as Paltreu. A member of Sde Eliyahu, Ephraim Nakhshoni, searched the CZA for documents concerning these land exchange transaction. The property (Nakhshoni assumes it was the Wieland Farm) was posted for sale at 120,000 DM, or exchange for a mixed farm in Germany. That was in 1936. By December 1938 an agreement had been signed between the Wielands, the Kueblers, Dr. Gmelin, Mr. Dietrich, Mrs. Mienhardt, Mr. Beck and Mr. Boyha, on one side, and the KKL on the other side. The agreement covered 2,175 dunams and the houses, groves and orchards, and valued the property at 700,000 DM. Source: Nakhshoni, E., The Germans in the Valley of Beis-Shean, in: Babik’a (88) (1981), p. 21; Goldenberg (1965), p. 114; Nakhshoni (1989), pp. 25-26.} Bar-Giora (1956) and Stern (1986) describes this transaction in detail.\footnote{Bar-Giora (1956), p. 31; Stern (1986), pp. 202-205.}

On these lands two new Jewish settlements were formed: Sde Eliyahu and Tirat Zvi.
The Wieland and Kopp Houses: Two houses are documented in the archives of *Sde Eliyahu* and *Tirat Zvi*: Kopp’s house at the southern end of the palm avenue, and the Wieland house at the northern end, called by locals ‘The Red House’ for its reddish roof clay tiles.

The two houses present different designs, and show different methods of dealing with the most critical architectural problem in the region: the very unfriendly summer of the *Beit Shean* Valley, where temperatures can and do rise to 40°C (104°F) and above, and effective protection from the heat is a must. Both houses were built of adobe blocks, locally made, probably the influence of similar technology used by Arabs in the region.665

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665 Aloyal (1944), pp. 127-138, describes the German method in *Beit-Shean* for making adobe blocks.

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Photo 269: Remains of the Kopp House near Tirat Zvi.

Photo: February 2002. A combination of porous concrete and lime-enriched mud blocks, plastered with cement-enriched plaster. Wall thickness measured 80-100 cm (31.5-39.4 in.).
Kopp house was demolished - with explosives - by Jewish settlers sometime between 1939 and 1940, in a precautionary measure against hostile factors, which threatened to take over the structure. The ‘Red House’ (Wieland’s) met with a similar fate, during 1943, according to Y. Zons, a veteran of Sde Eliyahu. Zons explains that because the building was on the main (and only) route in the vicinity, it might have become a spot for hostile activity. The clay tiles from the Wieland House were taken apart by the members of Sde Eliyahu, and put into secondary use in the roof of the Sde Eliyahu synagogue where they remain till today.

The Kuebler house which was not a residence but a service structure was used by the first Sde Eliyahu settlers but demolished in the 1940s by members of Tirat Zvi and Sde Eliyahu.

The Kopp House: The Kopp House, half-sunk in the ground, used an innovative method for cooling, utilizing the cool water of a spring located next to it. The basement was built over a reservoir, with a space between its floor and the water level, and openings in the floor to allow cool air to circulate through the house. The upper level was used for storage space, no doubt a sensible design decision in this climate, considering the thin, heat-absorbing roof. This way, the upper level became an isolating layer that kept the ground floor cooler.

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666 Goldenberg (1965), p. 113; Yair (1986) p.32.
667 Goldenberg (1965), p. 113, describes the house as indicative of the modernization the Germans introduced to the Valley: “…Already in the 1930s, Germans who sold urban land in Sarona, bought most of the lands of Khunizier and part of Saffa and set up estates using modern methods. In Khunizier, one German built a large stone house [limestone masonry blocks were found on site, D.G.], and in it a huge basement, which served as a cooling chamber for food and produce. On hot days, he would rest in there, enjoying the coolness…” [My translation].

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The roof was made of corrugated iron plates as a temporary solution, its thin eaves typical of lightweight roof construction.

Photo 270: Kopp House, unknown date.
Source: *Sde Eliyahu* archive. A private car, a tractor, fruit trees and machinery. The bell-like form in the balcony is probably a pulley-tripod, hidden inside the bell for aesthetic reasons.

Figure 63: Estimated Ground Floor plan, Kopp House.
Freehand drawing April 2002. The drawing is based on the available images and a drawing from memory of the plan of the Kopp House (made at my request by Israela Kaspi, a veteran member of *Tirat Zvi*).

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According to this estimate, there were four rooms (1), (2), (3), and (4) probably extended to include (13). Each original room measured 3.50 x 3.50 m² (11.5 x 11.5 ft.). The exterior (12) walls were 80-90 cm (31.5-35.4 in.) thick, the interior walls thin partitions, probably resting on wooden floor supported by wooden beams. Another possibility is that the partitions were also adobe walls, about 40 cm (15.7 in.) thick, (drawn here), supporting shorter beams, of smaller cross-section. This seems a more feasible possibility, in view of the scarcity of timber and the problems associated with transportation of long structural members. The windows in the exterior walls (10) were probably mounted on the outside of the opening, to permit usage of the resultant niche. The interior partitions between rooms would have had an upper opening, perhaps with shutters (14), to allow cross-ventilation. In the center of the plan, the entrance (5), a central space for access to rooms, and a kitchen (7), at the far end. The central space also incorporated vertical access to the basement and the upper storage level. This might have been done with a staircase or a ladder, both drawn {(9), (11)}, although a ladder seems the better solution since it takes less space. It also is consistent with the low frequency of use: the main floor was the ground floor, this is where the occupants spent most time, and there was little vertical traffic anyway. It is also possible that the upper floor and the basement were accessible from the outside, which would have made a staircase redundant. Outside the entrance, there was a porch (6), floor-tiled, probably with local stone. The roof of the porch was used as a base for a hoisting device,
visible in the image and in the freehand section herein. The outer line of the main roof is indicated in (8).

**The Wieland House:** The Wieland house became famous in the region for its ‘floating’ roof which may have inspired later Israeli architects in their effort to produce an architecture effective in heat reduction. The ‘Red House’ relied for cooling on the shadow created by a clay tiled roof, detached from the second floor ceiling, and overhanging in all directions, so that the building envelop, (including the second floor ceiling), was in the shade when the sun was overhead or close to it. It also relied on the thickness and the insulation property of the adobe blocks walls. Weitz (1934) reports his encounter with the Red House in the late 1920s, mentioning his appreciation of it. 669

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**Photo 271:** Wieland’s House (left) and a service structure, unknown date.

Source: Sde Eliyahu archive. Probably an early photograph since the balcony and the watchtower are not seen. Below, a later photograph, (detail), same source, shows the house with watchtower and balcony. The house in this photo is surrounded with trees, some 10 meters tall, separating the photos in time for at least 10 years.

**Photo 272:** Wieland’s House, with watchtower and balcony.

Source: Sde Eliyahu archive. A later photograph, (detail), shows the house with watchtower and balcony.

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669 Weitz (1934), p. 60.
The Wieland site was identified as a rubble mound 50 meters north of the concentration of Ficus trees, planted in straight line with the Washingtonia palms. On the site of the ‘Red House’, large blocks of compacted dark clay were found (February 2002), the only remaining relics.

Photo 274: Compact (trampled) clay block at the Wieland Site.
Photo by G. Fitterman, March 2002, and photo February 2002. Large dark trampled clay lumps that resemble the color of the local earth. We determined that the holes and pores are results of erosion by rain or dew or both (see image above).

Figure 64: Wieland House, estimated upper floor plan.
Freehand drawing February 2002.

Many thanks to G. Fitterman, structural engineer, who volunteered observations and expertise.
In the photos above, the ground floor would have the same layout, but with different functions: kitchen, dining, storage and living room, and upstairs the bedrooms (3) and (4). The footprint of the building is estimated at 6.0 x 12.0 m’ (19’-8” x 39’-4”), and in area 72 SQM or 775 SQF. The central space (1) was one of three spaces, which were partitioned (10) by light construction (wood). The upper end of the staircase landing (2) would reach the center of the space. All spaces would have at least two windows (6) on opposite sides in order for cross ventilation. The envelope walls (5), made of trampled clay and concrete blocks\textsuperscript{671} would be about 80 cm (31.5 in.) thick, made with segments of trampled clay laid in a “pinwheel” configuration (5) in order to achieve better cohesiveness.

The main feature of this level is the balcony (7), which encircled the floor from all sides. The balcony would project about 2.50 m (8.2’) away from the walls, which was about the same projection of the roof (9). The balcony served as a shaded and breezy resting place,\textsuperscript{672} as a control level to establish visual contact with the perimeter, and as a structural element, stabilizing the columns against buckling. It also provided shade for the lower level.

\textsuperscript{671} My estimate is that if concrete blocks were used, they would probably be placed at the corners, to stabilize the structure and make for more accurate construction. They would have cavities filled with concrete or trampled clay, a technology used in this region (see Aloyal (1944) p. 127.)

\textsuperscript{672} Nakhshoni (1989), p. 22, quotes a report of a bicycle excursion in 1932, by a group of Templers, and published in the Warte (June 30, 1932). The bicycle riders were received by Wieland and offered a rest on the “…cool and airy balcony…”.
Figure 65: Wieland’s house, Estimated typical section.
Source: Freehand drawing by D.G. February 2002. Levels (1) and (2) are enclosed in adobe and concrete block structure independent of the roof structure, supported by external columns (8) around the building. The columns would be supported by individual foundations (4), made of poured concrete or debbesh (see p. 364 herein), exposed above grade so as to separate the wooden column from the soil, moisture, and wood-eating insects.

Photo 275: Wieland House, late 1930.
Source: Sde Eliyahu Archive. The balcony was level with the floor of the second story, as shown in the photograph above. Later, a watchtower was added on the ridge of the roof and trees planted around the house, probably to create a microclimate. The photo clearly shows the balcony and its handrail, extending to the columns line. The balcony floor is used structurally, and stabilizes the columns against buckling and lateral loads. The house uses two building technologies: adobe blocks as bearing walls and wood frame construction to support roof and balcony. Each structural system is independent. The adobe walls support the beams which carry the floor planks.

Interim summary: Beisan. While the few houses the Germans built in Beisan did not constitute a colony, because of the specific conditions in the region, in particular climactic ones, the two houses documented in this section...

673 See Goldenberg (1965) p. 113.
help in understanding some of the solutions developed by Jewish settlements in the Valley, discussed in p. 443 herein. This Beisan Section is the first architectural study to describe the architectural aspects and impact of the Templers’ venture in Beisan, and its historical context. It documents the no longer existent German houses, as a limited scale phenomenon, but still a unique one in terms of settlement format, house design, and its very short duration, only about 15 years. Here, the German settlers’ adaptability played a major role: the use of the local materials, the attempts to befriend the Jewish population in the area, the changing types of agriculture and the constant search for better solutions. The Germans learned from the Arabs in the Valley how to face the aggressive climate, but at the same time contributed their own experience and know-how to the local Jewish settlers, offering new original solutions.

The abrupt end of the Beisan settlement must be attributed, mainly, to the deteriorating political situation which left the Germans with no option but to leave the Valley and find a new living space.

Beisan was the last location of Templer settlement in Eretz-Israel, and regardless of its volume, it represents the innovativeness and enterprise of those few Templers who dared to settle there. Beyond what they taught the Jewish settlers of the Valley in terms of architecture and agriculture, they also taught them adaptability, persistence, and initiative.
Templers Building Technologies

Above all other aspects in architectural theory, building technology provides an in-depth look into the intelligence imbedded in a structure, allowing us to acquire meaningful understanding of the culture and persons responsible for that intelligence. Study of building technologies implemented by the Templers provides an effective window for understanding their interaction with the local scene, making use of whatever was available, in terms of materials, local labor and construction know-how and traditions. Not all the technologies they used made their first appearance in the region, and some applications of their building know-how were interpretations and compromises, indicating a high degree of adaptability.

In the following subsections, Templer building technologies are being discussed through specific structures, most of them in existence at the time of writing. Some remain isolated episodes, but most of them caught on, establishing a pattern repeated in many structures.

The Unifying Factor: Stone Masonry Construction

Unlike the most common technology in Württemberg, half-timbering construction,674 the Templers adopted the most common building material and technology in Palestine: limestone masonry. Experienced German stonemasons

674 Ben-Artzi (1996), p. 87 ff, an in-depth study of the dominant half-timbering construction method, common in Württemberg. Sources used by Ben-Artzi were Grossmann U.G., Der Fachwerkbau, das historische Fachwerkhouse, seine Entstehung, Farbgebung, Nutzung und Restaurierung, Koeln 1987; H. Phleps, Alemanische Holzbaukunst, Wiesbaden, 1967; F. Ostendorf, Die Geschichte des Dachwerks, Leipzig 1908 (1982); D. Gilly, Handbuch der Landbaukunst, Braunschweig, 1800-1831; Some of the houses in Zoar, Ohio, built by German immigrants, were also built using the same technology.
were urged to join the first settlers so the first buildings might be properly built.

But first they learned from the locals; Kurt Beilharz (2000) relates in his memoirs that his father valued his Arab mason, Chalil, so much that he gave him a room in his house.675 The German masons made mistakes and learned from them; ‘read the map’ quickly and became confident enough to get involved with local methods of stone masonry. Soon they were conferring to the locals their know-how in masonry construction.676

One prominent Templer master stone mason and artist was Gottlieb Gohl, active in Jerusalem, and discussed in the Rephaim Colony Section p. 291 above. Hardegg even hoped to establish a vocational school for architecture and construction in Haifa.677 In fact, they were so successful, that they were in demand in neighboring locations, not only in their own community.678 Sometimes quality was compromised for speed of construction and availability of materials. In Haifa we can see stone that is too soft for wall masonry construction or positioned in the ‘unnatural’ direction of the stone. (Stone masonry has to take into account the position in which the stone was quarried and be laid in the same position. Any other position would result in chipping, and eventually disintegration.)679

677 Carmel (1990), p. 23. The plan did not materialize, instead the school was rented out to become a Christian hospital.
678 Ben-Artzi (1996), pp. 129-131; There is evidence that Beilharz and Haar from Haifa were engaged in the construction of the Kinneret Jewish Colony near Tiberias (1910), and the first houses in Degania (1911), as well as other locations, such as the Tabkha Scottish Mission (1890), railroad stations and installations.
Photo 276: Stone masonry construction, Haifa Colony.

Photos: 2000-2001. Left: different degrees of stone cutting, from rough to fine, depending on the purpose and degree of accuracy needed. The mortar joints between stones is a ‘Bead Joint’, projecting out of the wall plane to help repel water from the joint and avoid its permeating into the inner side of the wall through the joint. The projecting belt course between windows and molding frame is the next higher degree of accuracy of stone-cutting. The purpose of these elements is to keep water away from the wall surface, and provide a measure of accuracy for the builder, so that a ‘fresh’ and leveled course can be started for each floor so that accumulated stone-laying inaccuracy leveled out. The molding for the windows is also to give the opening predetermined dimensions, so the joiner has a single window type to manufacture. The stone was always quarried locally.680

The stone masonry used in traditional Templer houses combines accurate and rough stonecutting and, in a way, expresses the fusion of two cultures originating in different locations: the rough stonecutting which the Arabs knew, and the precise stonecutting, which the Germans brought from Germany and the U.S.681 For the Germans, it was a comfortable compromise: it showed some connection with the locality, but contained ‘reminders’ of the sophistication of German masonry. Perhaps the roughness of the Arab masonry appealed to them: it represented the strength and permanence of stone, an authentic attribute of the locality, which they now combined with the finesse of European stonecutting, as later seen in Schick’s Tabor House (1880s) in Jerusalem, and in

681 Also by the Maltese masons brought into Palestine by the architects of Christ Church in Jerusalem (1840s), before the arrival of the Templers, see discussion in Jerusalem Cross Section, above.
Jewish architecture, in the sanatorium in Nazareth (1987), designed by Z. Rechter.682

The ‘stitching’ of two different materials, or textures, or building technologies and the confluence of the two makes for a powerful architectural statement, as seen in the Haifa photos above and the examples below, the contrast vividly enhancing each component.

Photo 277 and Photo 278: Thabor House in Jerusalem and Sanatorium in Nazareth.

Photo: May 2000, and Shechori (1987), p. 70. Thabor House, designed by C. Schick, and built in the 1880s, includes several degrees of stonecutting, combined with embedded archaeological items and Biblical motifs, like the altar horns (left corner). The Nazareth sanatorium, designed by Z. Rechter, and built 1987, makes use of the same architectural effect.

The introduction of stone-emulating prefab concrete blocks, even before reinforced concrete, marks a change in the Templers’ preference for material, but not for construction methods. They continued to use stone masonry construction, but with concrete blocks. Examples were the Community House in Sarona, the German Consulate in Jaffa, and a residence (below) in Sarona.

Photo 279: Sarona, stone-emulating concrete blocks used for masonry construction.

Photo: July 2001. Use of several types of concrete blocks, in lieu of natural stone. Some elements of constancy were retained: belt course, cornice return, gable and its coping, and segmental arches, all elements traditionally associated with stone masonry, and which - with the use of concrete - need not be in the traditional form.

The Bulach House, Wilhelma

A representation of the floor-arch technology, described by Kidder & Parker (1958) and Kroyanker (1985). This became available in the 1890s, with the appearance of the steel 'I' beams. The method takes advantage of the property of steel as a beam to resist tension and compression at high efficiency and, because it is so strong, requires relatively little depth.

Figure 66: I-beams and shallow arches in Arab building, Jerusalem.


Photo 280: I-beams and hollow clay blocks in Jaffa, Eilat Street.
Photo: January 2002.

Photo 281: I-beams and hollow clay block, Bulach House, Wilhelma.
Photo: February 2001. The Jaffa detail is dated to the 1910s. The hollow block is a logical choice structurally: lightweight, small size, accurate, and durable. Bulach in Wilhelma made the same choice, for the same reasons.

The floor-arch method is a rare blending of an old technique, masonry vaulting, and modern steel framing. It was used also in the U.S. between 1900s and 1940s. Its major advantage being that it is one of the first fire-resistant floor systems. The steel beams are encased in the cementing material and stones or bricks, thus providing a degree of fire resistance. It is not normally used in the U.S. any more, due to the dwindling number of masons and the expense involved in the placement of the system. In Germany, however, it is still practiced, as recorded in Berlin in 2002.
Another technology found in the Bulach House as well as other Templers’ houses was the combination of steel and wood beams.

The combination of steel and wood beams allows more freedom in the setup of the rooms since it eliminates, at least for the most part, the need for inner bearing walls. These beams can support inner walls, if placed directly or close to the beam; they also allow more floors without having walls become too thick; and provide flexibility in floor plan design by enabling inner wall to be vertically uncontinuous.
Paint: Also in the Bulach house (as well as in other Templer houses), is a wall paint technology imported from Germany, in which interior walls are painted with a mixture of lime-based whitewash, milk, and a pigment called 'Ultra Marine'. Recently a survey has determined the use of this mixture in Templer houses in Sarona, Wilhelma, Haifa, and possibly other locations. The blue pigment, the first ever synthetic pigment, was a novelty: it was the first time blue color had been available at reasonable cost, and easily applicable. It was a fairly new invention, developed in France and Germany at the same time and appearing on the markets in 1828. It was based on heating a number of minerals (clay, soda, sulfur and coal), to produce the formula Na$_{6-8}$Al$_6$Si$_6$O$_{24}$S$_{2-4}$. The pigment, when mixed in a solution of whitewash and milk, results in very durable wall paint. The reason for using milk is that it contains at least 3.5\% casein, a binding compound, which is a natural protein. In 1928, an expert painter from Tel Aviv has published an article about the casein and its binding qualities, tracing its origins to ancient Egypt.

Wilhelma and the dawn of reinforced concrete in Eretz-Israel

Wilhelma is associated historically with the introduction of reinforced concrete to Palestine. Avitsur (1985) relates details of the business association between Decker, a farmer from Wilhelma and Daniel Lichtenstein, a Jewish

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*684* Survey and rehabilitation of wall paintings in Templer houses, in progress at the time of writing by *Light Blue Ltd.*, a company specializing in research of historic stenciling in Israel 1900-1950. Many thanks to Shai Frakash.


engineer from *Petach-Tikvah*, in 1912.687 Decker, open-minded and ready to accept new ideas, on one hand, and Lichtenstein agreeing to the ‘public test’, on the other hand, actually opened the door to this technology which became the leading building technology in the country in the years to come.

At the same time, in Kibbutz *Merhavia*, in the Jezreel Valley, the German architect Berwald designed the first reinforced concrete water tower.688 Already in 1886, Templer engineer and architect Gottlieb Schumacher suggested a steel bridge to be built over the Kishon River, near Haifa, using concrete foundations. His attempt to introduce new materials and technologies, failed; The Bridge in its original design was never built.689

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In Wilhelma, the new houses erected following World War I were already reinforced concrete structures, with non-bearing walls, concrete floors and in most cases they still used soft limestone as wall material.
Concrete Technology: the New Lippman House, Sarona

In Sarona, in the 1920s and 1930s, the last wave of construction was exemplified by international Style houses. The New Lippman House photo, taken during construction, allows a close look at the construction technology, newly introduced to Palestine.

Photo 288: Sarona, the new Lippman House, during construction, 1930s.
Source: The Albert Blaich family archive, Australia. (Detail from the photograph).

The construction method utilizes the envelope walls as bearing walls; the concrete blocks laid between the pouring of the ceilings, thus creating a continuity of material on the face of the building, the interior walls added later between ceilings, the exterior walls becoming part of the building structure, a system not used by the Jewish builders; in Jewish houses of the same period, all
the walls were non-bearing, and the construction was totally concrete framing, with wall columns on the periphery of the structure. In the Lippman house, the half-buried basement is also reinforced concrete, which becomes a part of the structure’s foundations. The builders used at least two sizes of concrete blocks for the exterior walls, probably to have different wall thickness: in the thicker walls, the blocks were half the height of the thinner walls blocks.

One notable visual is the use of sill-courses, borrowed from brick technology, and common in Württemberg (see image of the Heidenheim house p. 403). The sill-course is used here as a purely visual element, visually tying the windows and reducing the effect of the large building masses, thus refining the general appearance of the building, much like the Nashashibi house in Jerusalem (see p. 402, in Markers of Domestic Templer Architecture in Eretz-Israel section). The designer (F. Steller) also made use of concrete quality to be
overhung, with the overhanging slab above the entrance, accentuating and protecting it. Such overhanging elements were common in the architecture of the British Mandatory period, and used extensively by Jewish and British architects, like Kauffmann, in most of his buildings, Harrison (1937, the Government Printer House, Jerusalem), Rau (1929, residences in Jerusalem), and others.

![Image](image)

*Photo 290: Kroskel House, Tel Aviv, 1930 by Kauffmann.*

Sources: (left) Levine (1984), p. 22, picture 65; (middle) Levine (1984), p, 22, picture 63; (right) image by Inbal Shapira April 2000. The concrete cantilevers became common in the 1930s, in the syntax of the International Style.

In the Lippman building, there are no arches, simply because there is no need for them. The reinforced concrete is a continuous monolithic structural material, unlike stone construction and eliminates need for arches to resist vertical loads. It enables thinner walls compared to stone masonry, cantilever elements, and large openings. In the 1920s and 1930s, when reinforced concrete technology was just beginning in Palestine, only simple curve line were seen in concrete structures (see above Decker’s irrigation reservoir in Wilhelma, and Sarona water tower,) while in Europe this technology reached much higher levels in terms of morphology (Perret’s *Notre Dame du Raincy* in France, 1922).
Walhalla: Fishscale Wood-Shingles Cladding.

One form of cladding for exterior walls common in Württemberg was fishscale wood-shingles cladding. Imported by Templer settlers, it never became a success in Palestine. In Württemberg it was part of the building tradition, already in Medieval and Post-Medieval Europe. Fishscale cladding was suitable for wood frame structures, which the Templers never built in Palestine. However, some expressions of this technology are found in Templers structures, and were copied by Jewish settlers.

The technology is simple: flat thin hardwood pieces, one edge rounded or the whole shingle diamond shaped, nailed to the wooden frame, the nailing point always covered by the upper row. Each shingle covers at least two other

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690 McAlester (1992), p. 44.
shingles, and is covered by at least two shingles. The reason for the fishscale shape, besides the decorative effect, is that it helps avoid splintering the thin delicate wooden leaves.

Photo 293: Fishscale wall-cladding, in Walhalla.
Photos: October 2002. The house’s ceilings are wood construction as evident from the massive wooden beams supporting the balcony.

The Kopp House, Near Tirat Zvi

The house had thick exterior walls {about 80 cm (31.5 in.) including the plaster, according to Aloyal (1944, p. 127) 90 cm or 35.4 in.}. On the Kopp site we found, among other building materials, concrete blocks, measuring 75 x 40 x 45 cm (29.5 x 15.7 x 17.7 in.) which have two voids differing in size.

The exterior walls of the house were adobe blocks and trampled clay, as described by Kopp’s wife in a letter dated March 9th, 1984: "[…] Our house was made completely of mud bricks; the walls were 80 cm [31.5 in.] thick. It was built
in accordance with the concreting process. Cement conducts heat, mud remains cool [...]'.

![Concrete Block at the Kopp House Site.](image)

**Photo 294:** Concrete Block at the Kopp House Site.

**Figure 68:** Concrete Block, Kopp Site.

Photo and freehand drawing February 2002. A large concrete block found at the Kopp site. The aggregates are pebbles of different types, mostly limestone-based. It is probable that they were collected at the Zohr Valley across the Jordan River nearby, or the Ge’on Hayarden area a few kilometers east. Measurements show a very large concrete block, about twice the size of a contemporary regular one. The size and shape of the block suggest use for basement walls, perhaps the possibility to pour concrete (or fill with adobe material) into the cavity after the block is laid, making for a better connection between courses. The reason for the two different size cavities in the block is not clear. Bearing wall construction with mud-blocks is seen here in the picture of the Kopp house (photo 300 below), showing part of the wall where the blocks are laid long and short faces alternately. This is supported by descriptions in the letters of Louise Kopp and provides exceptional thermal insulation.

In a field investigation (March 2, 2002) at the site, the sophisticated use of materials was recorded. Kopp built with the right material in the right place, with different types of blocks, varying not only in size, material composition and consistency. Kopp used poured concrete to span openings, and heavy-duty

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692 Source: Letters, archive of Tirat Zvi, Letter by Louise Kopp, March 9th, 1984 (translated on request by M. Higgins). Adobe houses are still being constructed in the U.S., for example. I visited, on September 2001, in Albuquerque, New Mexico, a modern dwelling construction site where the user preferred adobe blocks for its excellent thermal and acoustical insulation.

693 Many thanks to G. Fitterman, structural engineer, who helped analyze these findings.
waterproof plaster to resist moisture of the lower level, because it was close to
the spring under the house, and subject to humidity.

Photo 295: Details of Adobe Construction, Kopp House and Aloyal (1944).

Figure 69: Adobe blocks positioning.

Photo by G. Fitterman, March 2002. Left: Detail of adobe block, Kopp House. Bits of
straw as reinforcement material; the clay is local and the same color as the earth in the
vicinity. The holes in the blocks operate as anchoring points for the plaster. The blocks are
joined diagonally along the course, as seen from the diagonal crack.
Right: a drawing of recommended adobe blocks positioning in a wall, based on
observations in Beit Shean. Source: Aloyal (1944) p. 139 drawing no.4. The seams
between each segment of trampled clay are diagonal for better connection. Each layer is
about 5 cm (2 in.) deep. The trampling reduces the volume of the clay by half.

This was Kopp’s way of dealing with the limitations of his site and the
possibilities it afforded in terms of construction. He probably manufactured the
concrete blocks on site, since they were heavy, and unsuitable for transportation;
the wooden beams were brought in from elsewhere. This was a local solution to
a local problem but represents a resourcefulness characteristic of the Templer
builders.
Photo 296: Different Materials at Kopp Site.

Photos: March 2002. The use of the right building material in the right place, at the Kopp site. The wall with the opening is divided into a number of courses, each performing its own role, each with different specifications. The lowest visible course is the foundation, which is wider than the wall and composed of natural stone (limestone and basalt) and plastered with cement-enriched plaster. Above that, a foundation wall made with blocks of earth, lime, cement, pebbles and other small size stones (called by locals *zifzif of the Yarden*), {see Aloyal (1944) p. 128} plastered with two layers of plaster: the primer, rich with cement, and an external coat which is smoother and creates the appearance of the surface. Spanning the opening: a concrete course (no reinforcement observed), of about 10 cm (4 in.) deep and, above that elevation, large adobe blocks reinforced with short pieces of straw. Between the adobe blocks the cementing material is lime-based mortar. The effectiveness of the plaster can be seen very well here: where the plaster has gone, the blocks have eroded more rapidly.

Aloyal regarded the plaster in the mud houses as a structural element. The coating of mud walls with plaster was not mere finishing; it was important to protect the mud walls against moisture, which he considered detrimental. He recommended that the roof be projected beyond the plane of the wall to protect
the wall from rain. Cannan also regarded the plaster as a cardinal element in
the building technology in order to avoid crumbling of exterior walls.

Bisan (Arabic for Beit-Shean) was a typical location of the mud houses
(Canaan’s term is ‘clay houses’), in Jericho and villages along the Mediterranean
coast. Canaan described a similar construction method, stone foundations and
walls of about 40-50 cm [15.7-19.7 in.] thick, each brick layer of the external
walls made up of two rows.

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Figure 70: Adobe Wall Plaster application detail.

Photo 297: Plaster on adobe and concrete wall.

Source: Aloyal (1944) p. 139 drawing no. 9. Left: Recommended application of plaster in
an adobe wall. Aloyal, who studied the German method of thick trampled clay walls,
reported a method by which the plaster is applied in two layers (left side of the drawing),
on a dry adobe wall (right side of the drawing). Diagonal holes (from the surface down) are
pierced into the wall so that the plaster can be better anchored. Aloyal’s drawing shows
two equal layers of plaster, each about 5 cm. (2 in.). Findings at the Kopp site (right, March
2002) show a thick layer of 5 cm (2 in.) next to the wall and an outer plaster layer 1 cm
thick.

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694 Aloyal (1944), p. 142.
695 Canaan (1933), p. 55.
696 This is about half the thickness of the German houses because the typical Palestinian house was usually one storey
high, supported a light roof, and required thinner walls.
697 Canaan (1933), p. 54.
Photo 298: Building materials at Kopp House site.

Photo 299: A closer look at Kopp Site concrete.
Photo: February 2002. The mix of aggregates show lime-based pebbles, lava sand, shells, and aggregates found in riverbeds.
Photo 300: Kopp House, remains of gable wall, 1940.
Source: Sde Eliyahu archive. Ruth Eilon, a Sde Eliyahu member, on top of what was left of the Kopp house gable wall. The photograph is dated 1940. Clearly visible are the two rows of adobe blocks in each course (see Canaan 1933 p. 54) and thick coating of plaster.

Below: the only metal element found at the Kopp site is a door (or gate) hinge, anchored into the concrete frame of an opening. That the hinge is anchored to concrete frame, not to a wood frame, suggests that the door leaf was a heavy element. It was still very stable anchoring when we checked it.

Photo 301: Door hinge, Kopp House site.
Photo: March 2002.
Wieland’s House, Near Sde Eliyahu

There is evidence that Wieland also used concrete blocks for house construction, although none were found on the site. A certain building in Sde Eliyahu was made of concrete blocks taken for secondary use from the Wieland House.698 Wieland himself was no stranger to concrete. His family owned a factory of prefabricated concrete products in Jaffa, and was in fact among the pioneers in concrete production in Palestine.699 Wieland was not far removed from architecture either: his family links show connection to architects in the family: his brother’s (Karl) son, Theodor Wieland, was an architect. Karl Wieland himself was married to Theodora (3.10.1883) daughter of Theodor Sandel, one of the most prominent and gifted architects of the Templer community.700

The roof structure was a series of simple ‘A-frame’ trusses, made of wood, resting on the columns (see structural scheme p. 367 herein). This created a roofed space above the ceiling of the second floor, which was, therefore, always shaded. The use of fired clay tiles for roofing created a problem: they radiated heat to the space defined by the roof. Wieland overcame this with thermal insulation installed in the second floor ceiling, detaching the roof from that ceiling and allowing air to flow in that space, and by punching a hole in the ridge of the roof, its highest point, for the watchtower, allowing trapped warm air to escape

700 Data by Martin Higgins, personal communication, March 2002.
upwards. The floor of this space was designed for light loads, and for the weight of the insulating material.

Figure 71: Estimated structural scheme for the Wieland House. Freehand drawing: February 2002. Based on the available photographs.

Jewish settlers in the Beit-Shean Valley learned the lessons of the Germans also in terms of building technologies. The Sde Eliyahu and Tirat Zvi houses were built of concrete blocks filled with earth, and also from adobe blocks, and wooden trusses for the roof. The same type of clay tiles were used as in the German houses, sometimes substituted by concrete tiles of the same geometry.

701 Aloyal (1944) p. 129. Also visually documented in a photo by Zoltan Kluger (herein) 1938.
Aloyal (1944) observed that the Jewish settlers of *Tirat Zvi* were exposed to local (Arab) adobe construction and used the same method with minor changes. The reasons for adopting this method were its low cost and its performance as insulating material. The first houses built by the Jews were “helped by Arab experts”.\(^{702}\) This is the method as described by Aloyal: 1. Excavate a layer of earth from a spot near the site, 2. Mixing the earth with water and kneading, usually with legwork, 3. Adding pieces of straw, about 3 cm (1.2 in.) long, 3. Cast the material into forms set on the ground. 4. After one day, disassemble the

\(^{702}\) Aloyal (1944), p. 127.
forms and let the blocks dry for a few days. Aloyal mentions “Germans in the vicinity” using trampled clay instead of kneading.703

Photo 302 (left): Members of Tirat Zvi making adobe blocks, 1938.

Photo 303 (right): Adobe block-making in the northern Negev, 1950s.

Sources: (left) photo by Zoltan Kluger, National Photo Collection; (right) Avitsur (1976a), p. 125, ill. 334. The raw material for the block-making is next to the brick-maker.

Avitsur (1976) describes the same method, and mentions Nahum 3:14:

“... go into the clay and tread the mortar, make strong the brick kiln”,704 to show that this technology was used in the Biblical era. Hirschfeld (1987) also describes the same method, used in the valleys and on the coastal plain, and traces it back to the Roman-Byzantine period.705

**Interim Summary, Templer Building Technologies:** The building technologies presented in the section above are a mix of items, some of which caught on, some which did not, like the fishscale wall cladding, or the adobe technology. The most critical aspect in understanding these technologies is, in fact, in the historical and social context from which they emerged; there may be a

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703 Aloyal (1944), p. 127; Canaan (1933), p. 54 described similar methods.

704 Avitsur (1976a), p. 124. The word ‘kiln’ as appears in the English version is translated from the Hebrew ‘Malben’, which is what Avitsur regards as brick forms.

link between introduction of new building materials and the general development in Palestine at the end of the 19th Century: the opening of the Suez Canal, the development of trade ports that followed, coupled with the improvement in ship design, bringing into the region new materials and people with the necessary know-how. Among the new materials were the massive lumber beams imported from Romania, the roof clay tiles, and the steel ‘I’ beams. All these had profound effect on house-design and construction; the further transition from lumber to steel beams enabling greater overhangs, and intermediate ceilings which could be constructed in a four or five level house, without an increase in walls’ thickness. 706

The shift from stone masonry to concrete technology, in all its forms, parallels the change in the Templers’ history in Palestine, following World War I, as it did for the Jewish community. This was the shift from manually-produced building elements to industrialized building components. There was a lot of power in concrete: it freed its users from dependency on mined and hand-shaped materials, bypassed the problems of local availability, and allowed faster and higher structures. At the same time it enabled new morphology, which was possible only in concrete.

Volume III: Discussion, Recommendations and Conclusions

Chapter 6:
Overview: The Templers Architectural and Cultural Heritage

The Templers disappeared from Eretz-Israel, but their colonies and houses remain there. As they did when the colonies were German, these colonies still attract visitors and scholars who marvel at their special *genius loci*. The legacy of the Templers is a unique architectural marker of primacy, excellence, innovation, resourcefulness, and skill, enclaves of cultural landscapes which were to become part of the Israeli culture.

One of Israel’s best contemporary writers, Meir Shalev, describes the intricate relationships between Jewish and German settlers in the Jezreel Valley, and by so doing expresses the considerable influence of the Templers on the *Yishuv* (Hebrew for ‘the Jewish settlement populace after 1880), and how deeply the lives of the Jewish settlers were affected by the Germans.707 Figures in that early Jewish community spoke, time and again, of the Germans’ success as an index for the potential of the Jewish settlement movement and regarded the German colonies as an example to be followed. In this study, the Templers and their colonies become one of the ‘research spheres’ as described in the Research Methodology Section; in the general cultural sense, they turn into one piece of the local cultural mosaic, a natural link between East and West, especially with the Christian West, and in particular Germany with its cultural

707 Shalev (2002); So have others: Agnon (1966); Shamir (1973); Raab (1988).
quality, the present study acknowledges this fact and, in a humble way, pays homage to their endeavors.

**Cultural Imperialism**

Palmer and Parsons (1998) define Cultural Imperialism as the cultural transmission from one geographical location to another by a certain culturally-identified group, in terms of material culture. Specifically, they discuss the effect of western European Imperialism on building traditions from the 17th Century onwards, arguing that western European architectural traditions were used to enhance and express the power and authority of the colonizing nations.

There always was, however, a dialogue between imported architecture and existing, on-site reality. In Palestine, a fusion of German tradition, know-how and skill and local materials, labor, and conditions; more in house design and less in settlement design, which was new and unprecedented. The ‘first wave’ of Templer houses was a hybrid, a product of this fusion.

By the time the Templers started their settlements, there were visuals, usually in European institutional architecture, in Jerusalem, which represented the architecture of the country of origin of the colonizing body, on one hand, but also local visuals and building technologies from which this architecture borrowed. The Russian Hospital and cathedral in Jerusalem’s Russian compound designed by Appinger in the 1860s echoed the Russian neo-Baroque

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architecture, and the very similar Church of Ascension in the Kremlin, built 400 years earlier. The Schneller Orphanage, also built in the 1860s, reflects the prevailing neo-Baroque style in the south Germany of the period.

Figure 73: European representation in Jerusalem.
Source: Kroyanker (1987b), p. 45. The left column is the European source; the right column is its Jerusalem echo. These were not copies, but visual reflections of the source. From top: the Ostenkin Church in Moscow (16th Century), versus Maria Magdalena Church in Jerusalem, (1885). Second row: Church of Ascension, the Kremlin (1475), versus the Church of the Holy Trinity in the Russian Compound, Jerusalem, 1860. Third row: Palazzio Vecchio, Florence (1298), versus the Italian Hospital 1911 in Jerusalem. Forth row: The Magdalen College in Oxford, (1458), versus the tower of the St, George Cathedral (1912) in Jerusalem.

712 Kroyanker (1966a), pp. 116-117; Gordon (1988), p. 257 concluded that the design was a conglomerate of different styles originating in various parts of Germany, and attributed this phenomenon to the prevailing routine of the already industrialized German building technology, and the possibility of ordering building components from various locations; Shavit (1998), p. 228, remarks that the Neo-Baroque style was common in public Württemberg structures in, and that the designer of the Schneller compound was Conrad Schick; this is not supported by a cross-reference; Segev (1999), p. 10.
The *Mishkenot Sha’ananim* complex, built in 1860 by a British architect Smith with the ‘toothed’ (or crenellated) parapet echoing the walls of the Old City, across the valley, was the other side of the equation in which imported European architects attempted to create a style containing local traditional visuals.\(^{713}\) The Templers did not escape this tendency either: they incorporated ‘toothed’ parapets in the first house they ever built in the Holy Land – the Haifa Community House in 1869. In Betlehem, this visual was also repeated in the community house and water tower.

Using local cross-vaults technology in both structures, the Templers, however, tended not to mix Biblical with eastern motifs.\(^{714}\) Very few Templers

\(^{713}\) Kroyanker (1966a), p. 143.

\(^{714}\) An echo for this distance from the Moslem culture by the Templers in Eisler (1993), p. 70, where Eisler describes their fierce reaction when compared to the Moslems in a speech delivered by the Reverend Schlaich in Fellbach in 1897; Rogers (1880) also notes this distance from the locals: “They live peacefully with the people of the country, but apparently do not desire to fraternise [fraternize] with them” (p. 146).
buildings contained ‘oriental’ visuals. In later years the tendency grew outside the Templer community: Schick’s buildings of the 1880s, (the Lepers Hospital and his own Thabor House) contain such motifs; other later buildings in Jerusalem were built with this approach of ‘Euro-Oriental Style’, and can be easily recognized in the YMCA building (1926 by Harmon), the Ottoman Orphanage (later to become the Bezal’el Art Academy, built in the 1890s), the Scottish Church (1927 by Holiday), the Wolffsohn Building on Mount Scopus (1930 by Geddes and Mirse), the Rockefeller Museum (1938 by Harrison), and others.

The issue of the dialogue between East and West architecture, and the mutual contribution of one to the other, is discussed by Fuchs (1987), regarding Arab and German architects. Hence, his determination, based on observations of Carmel (1977) and Ben-Artzi (1988b), that there was a cultural exchange between German and Arab stonemasons, and that this was one of the dynamics in Haifa, in the area of building design. In other locations, the Templers were a focus of imitation for the local population.

Jewish architecture preceding the ‘International Style’ period, in urban areas especially in Tel Aviv and Haifa, was also reflective of the cultural conflict between East and West, in the search for identity and the need to make a cultural statement. The buildings of Berwald, Megidovitch (the early buildings),

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715 ‘Oriental’ as referring to the culture of the Middle East and not to the Far East; see discussion of this issue in the ‘Architectural Style’ section.
even architects who were students of modern architecture, like Rechter and Mendelsohn, saw fit to insert oriental elements, or their interpretations of these, in their buildings.\(^{719}\) The reason was the same as in the case of the Templers: they were Europeans creating a new society in a new land; they felt the need to have their architecture reflect this process.

Templer architecture has taken the same route: the Templers started off with ideas they imported, but the meeting with local materials, methods, traditions of construction, the need to accept and be accepted by local Arab masons, and the realities encountered in Palestine, all created a new kind of architecture which evolved, not from scratch, but as a synthesis of the above. This was, however, not a colonial behavior: unlike other colonial settlers, especially in South America,\(^{720}\) the Templers did not use their architecture to enhance their power or authority as colonizing agents. Fused with their ‘ideological motivation’, the architecture they created in Palestine succeeded in creating a new and lasting reality: in their architecture indeed is reflected all their efforts towards that end.

\(^{720}\) Palmer & Parsons (1998a), Section 14, p. 1.
Markers of Residential Templer Architecture in Eretz-Israel: Visual and Design Characteristics

Architectural style and evolution, the time axis: There is a basic difference between houses the Templers built at the beginning of their settlement venture and houses built after World War I.\textsuperscript{721} For the purposes of this study, discussion of style attributes therefore relates to the houses built until then (1918), when the Templers were leaders in development of western domestic architectural design in Palestine, and the distinguishable architectural features creating a ‘Traditional Templer’ architecture.

Is there a Templer style? The following discussion points to a number of characteristics of ‘Templer Style’ as observed in the Templer Colonies. The predominant characteristic being,

► Simplicity, in detail, construction, plan and façade; the use of simple straight lines, simple compositions, clear proportions, minimization of projections and breaking-down to secondary forms and masses; simplicity expressed not only in form and design approach but also in terms of materials and maintenance considerations. The rest of the discussion attempts to substantiate this overall observation.

► Prefab elements and their contribution to style. Many of the houses contain identical elements, such as prefabricated concrete products manufactured by the two Templer factories: Wieland and Beilharz, in Jaffa and

\textsuperscript{721} See discussion on the time frame by Ben-Artzi (1996), p. 167.
In a sense, this situation created a **visual common denominator** in most of the buildings; not only the actual use of prefabricated concrete elements, the fact that they were mass-produced and sold to builders, who incorporated these elements in the buildings, was a major factor in shaping the architectural syntax. Even the Jewish neighborhoods next to Jaffa were affected by the availability of these prefab elements.

Industrialization of building products and its ramifications have bearing on the development of architectural style. By the second half of the 19th Century, factories had started to produce prefab elements in accordance with predetermined technical specifications. These were available to consumers almost everywhere, who could scan catalogues issued by manufacturers, select a product and order it. Transportation conditions were also greatly improved, and so an ‘International Style’ developed, *de facto*; French, British and German styles were distributed globally, causing local and regional building traditions to diminish. Nor did Palestine escape this trend. The German factories, and later the Jewish Chelouche factory in Jaffa became very active and successful and a major factor in determining the visual appearance of Templer and Jewish structures.

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723 Alexandrovitz (2001) p. 41. Alexandrovitz quotes a letter from Levontine to Wolfson (1904), suggesting a new Jewish neighborhood in the format of the German Colony in Jaffa. Alexandrovitz concludes that the design source of many of the Chelouche prefab elements originated in the German manufacturers.
724 See discussion in ‘Events on the German and International Arenas’ section above.
Openings in Exterior Walls as Cultural Indicative. Openings in building envelope-walls are a major visual characteristic. Openings, besides their obvious functionality, also bespeak concern with “national-religious-communal bases”.726

Photo 306: The Dove of Peace, entrance to the German Hospital, Jerusalem.
Photo: May 2000.

Figure 74: Drawing of the Emblem by Kroyanker.
Drawing by Kroyanker (1966a), p. 93. The building was designed by Schick and Sandel 1892-94.

Photo 307: Entrance to Christian Imberger house, Jerusalem.
Photo: May 2001. The construction date and a verse from the Old Testament, Isaiah 60:1: ”Arise, shine; for your light has come! And the glory of the Lord is risen upon you.”

Figure 75: Koran verses above windows of a house in the village of Anza.
Source: Souad (1984) p. 84. A religious message on openings was common also in Arab houses. Souad does not provide a date for his findings. Kroyanker (1985) also describes a similar practice in Jerusalem,727 where the house dwellers greet the returning Haj (Moslem pilgrimage to Mecca) pilgrims with Biblical texts and drawings of holy objects above the entrance. Kroyanker does not provide a date for this custom.

727 Kroyanker (1985), p. 44.
Hirschfeld (1987) also describes certain ornaments, Koran verses and the date of construction above openings in traditional Arab houses. Although no dating is indicated, it is possible that Moslem Arabs practiced it before the Germans. Christian Arabs as well as Moslems also practiced this in urban Arab communities.

The styles of openings are so distinctive that they may serve as indicators of national and ethnic identity. Known examples include the styling of the keystones in openings, each signaling a specific intent: the star of David in the Bukharan Quarter (Jerusalem) expressive of the national pride of its inhabitants, the ‘rising sun’ motif in Orthodox Jewish neighborhoods of the 1920s and 1930s expressive of the vision, progress and rejuvenation of the Jewish community; the humanitarian welfare structures of the German Deaconesses (Talitha-Cumi and the German Hospital) are identified by the Dove of Peace with olive leaves, the Deaconesses’ emblem.

There is also a functional aspect for the Biblical texts above entrances: the entrance to a house is a major trait, signaling transition from public to private grounds. A person making this transition is subject to transition to a different ‘set of rules’ applicable beyond that point: these are the rules of the family that welcomes such persons, and by which those who entering must abide. By posting Biblical texts, the house owners say: ‘This is where a religious family

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lives’, or, ‘This is a religious house’. Posting it right where one enters, was the most suitable location.

 ► Domestic houses are ‘boxy’. The envelope walls barely contain projections, diminutions or indentations.\(^{730}\) The reasons for this architectural approach are: These types are simpler and cheaper to build; this allows for minimization of envelope surfaces, therefore less heat gain in the summer, less heat loss in the winter; it is in line with the ‘ideological motivation’, described by Ben-Artzi (1996): providing a message of simple but rewarded life, honesty, and modesty.\(^{731}\)

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\(^{730}\) This was also observed by Fuchs (1987) p. 35, in the Arab Central Space House.
Security: Multi-space Versus Single Space Units. In the Mountainous regions many Arab houses are single space, containing all the functions: sleeping accommodations, cooking, domestic animals and storage. A main reason for this concentration was property security. The Templers did not adopt this approach; they designed their colonies with open geometry, separate houses, and low stone and wood fences, even in such isolated settlements as Sarona.

Houses situated with the long side parallel to the road. This was done to ‘establish a presence’, to have the more representative side of the building face the street and thereby contribute to the prestige of the colony and its dwellers.
In Sarona, most houses are lined up with the long side parallel to the street. The map also shows the long and narrow parcels with the short side bordering with street. Yet another reason for the houses being aligned the way they: if rotated 90 degrees, the position of the house would have required more land, thus reducing the area available for farming.

► Stone masonry construction. (See discussion in Buildings Technologies Section, p. 345).

► Houses were of similar size, or volume, ranging from eight to ten meters on the gable side and nine to 15 meters on the long side.\(^{732}\) Such sizing yields an average of 110 Sqm footprint; houses of two floors would have, according to this average, 220 Sqm. By today’s standards, a modest house, but at the time of the Templers’ settlement, it was an exceptionally comfortable house, much beyond the ordinary house volume in Jewish settlements.\(^{733}\) The Templer home was 180-300 Sqm (1937-3228 sq ft), while the typical standard dwelling in Jewish colonies was about 78 Sqm (839 sq ft), or even smaller.\(^{734}\) In Wilhelma, the Ille house, later to become the Beilharz house, was exceptionally large size, 14 x 11 meters (36x46 ft.) on site (April 24, 2002), it ‘raised eyebrows’ in the modest community. Sawatzky (1911-1935) relates the story of the engineer Ille, who was not a farmer, but had bought the farming setup “[…] because his wife liked farming […].” Sawatzky remarked that “[…] he had built […] a rather

\(^{732}\) Figures approximated from the survey conducted by a group of German architectural students, supervised by Gräf & Mayer (1999).

\(^{733}\) Ben-Artzi (1996), p. 139, concludes that the houses were much larger than those common in farmer communities and even in urban communities (no figures provided).

unsuitably large, two story house, as well as a huge stable.” After Ille died, the house had to be sold to pay Ille’s debts. “It would have been impossible for any citizen, let alone a farmer in Wilhelma, to buy such an expensive and impractical house and occupy two stories […]” 735 The house was finally purchased by the Beilharz family. Kurt Beilharz, who lived in the house as a boy, writes proudly in his memoirs, that his family house, “[…] was the grandest in Wilhelma.” 736

The question of ‘Architectural Scale’, 737 which is the architectural term for this relativity of sizes and dimensions, 738 is also a part of the ‘ideological

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738 Ching (1979) defines scale as “How we perceive the size of a building or space relative to other forms.” (p. 326), and distinguishes between ‘Generic’ and ‘Human’ Scales. Generic Scale: “the size of a building element relative to other forms in its context”; Human Scale: “the size of a building element relative to the dimensions and the proportions of the human body.”
motivation’ discussed earlier based on the findings of Ben-Artzi (1996). The idea of a building conveying a message of modesty, humility, low profile, fits perfectly into this niche. However the fact that the houses were of differing sizes and finishes and reflected each house-owner’s economical standing, says much about the openness and individual freedom of Templer society, and its architectural expression. The Templers accepted the idea that there was no ‘community discipline’, which would dictate the volume and sophistication of a given structure: those who could afford it built better, larger, and more expensive houses. Despite of this openness and a laissez faire policy regarding construction, the overall impression the colonies create is of balance, and the message is indeed one of simple, honest, low-profile architecture. At the same time, it expresses a comfortable standard of living, craftsmanship, quality construction, permanence, and a coherent sense of community.

All this was very different from the reality of the Jewish colonies launched two decades later: their scale was much smaller, most of the houses were single storey, no basements, and no attics. In some Jewish colonies, (i.e. Yesud Hama’ala), the appearance is more uniform, and less expressive of the individuality of the inhabitants.

739 See Ben-Artzi (1988b), p. 84. The issue of individual “means and taste”.
740 Ben-Artzi (1988b), pp. 148-149, a detailed discussion and comparison of Jewish versus the Templer Colonies.
Templer houses were much larger than those in the Jewish colonies. The significant difference positioned the Templer house as “magnificent in terms of rural settlement”.

- **Low pitch, gabled, clay-tile roofs.** Learning from mistakes, the Templers abandoned the local flat roof technology which was so problematic in terms of maintenance, resorting to the clay-tiles technology familiar from Germany. Ragette (1974) also remarks that in Lebanon, in the 19th century, flat roofs were covered with pitched clay-tile roofs for the same reason. In Jerusalem, the same reasons for using the pitched clay tiles roof is pointed out by Ben-Arieh. These were clad with imported machine-made ‘Marseilles’ tiles, of the same type

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742 Ben-Artzi (1996), p. 132. Ben-Artzi describes in detail the considerations for the change from flat roofs to low-pitched, gable roofs, and the use the Templers made of the attic space created by the clay tiles wooden construction; Hissin (1982), p. 181, describes how the settlers of Rishon Lezion had the same experience with flat roofs and arrived at the same conclusion. Flat roof houses are evident in the Geikie (1891), p. 773 drawing and in the perspective drawn by J. Schumacher, 1877 (see p. 447). All the flat roofs were later converted to pitched clay tile roofs. Ben-Artzi quotes also the Warte 8 (22.2.1877), p. 6, and the memoirs of Anna Bulach in (1990), Damals in Palästina, TGD, Stuttgart; in Jerusalem, Ben-Arieh (1979), p. 185 also reports the same policy practiced by Europeans in Jerusalem quoting Orelli (1878), pp. 111-126.
the Templers imported. Using machine-made tiles meant having accurate, milled timber substructures which also had to be imported. The Templers were not the first to use clay tiles in Palestine, the Schnellers and the British consul, Finn, used them earlier, as did other institutional structures in Jerusalem.

Jewish settlers and Arabic builders immediately followed suit: besides being maintenance-free, the red clay-tiles roofs portray an ideal of 'living-in-the-country, quality-of-life'. It seems that this is one of the deepest and longest lasting imprints of the Templers in this country: the vast majority of Jewish single family houses are still being built today with the same technology, as are many Israeli-Arab family houses in Arab villages throughout Israel.

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745 Ibid.
Photo 316 and Photo 317: Württembergen ‘fishscale’ clay tiles, in Zoar, Ohio.
Photos: August 2001. Flat clay tiles with finger-made channels to drain the water to the center of the next tile. The German settlers from Württemberg produced the tiles from clay found near Zoar. Below: view from beneath the tiles: tiles are raised by a piece of wood for better drainage and tightness between rows of tiles. (Same type of flat tiles in Germany is described by Ben-Arzi (1996), p. 89.)

Photo 318: ‘Marseilles tiles’ also called ‘Ludowici tiles’, the Schmidt Pension, Jerusalem.
Photos: April 2001. Wood substructure and clay tiles. The low pitch is enabled by accurate machined timber and machine-made tiles, which not only overlap, but have turned edges which lock into the next tile in two directions. These tiles are also in use in Württemberg, but less frequently than the ‘fishscale’.

Figure 77: ‘Marseilles’, or Ludowici clay tiles.
Source: detail from Huntington (1967) p. 574.

The reason is not only aesthetic, but also practical: this is ‘low tech’ construction, requiring few tools and relatively minor skill. All that is needed are saw, hammer and nails, the rest is materials. Also, it is quick to construct and long-lasting (clay tiles have been known to last thousands of years).
Symmetry on facades and in plan. This is one of the most prominent characteristics of Templer architecture. The reason for this approach seems to be the effort to express simplicity as a lifestyle, and to use symmetry as an indicator of solemnity, one of the few ‘fanciful’ characteristics which the Templers allowed themselves as a population which hugely valued modesty. The symmetry in plan must be regarded as a way of simplifying construction, dividing the plan in spans, which are manageable with wooden beams and later steel 'I' beams.746

Figure 78 and Figure 79: Ground floor and first floor plans, Rothaker house, Haifa. Source: Gräf & Mayer (1999) Students Survey. Symmetry axes are marked on the drawings.

Fuchs (1987) points to the symmetry in central-hall Arab houses in Palestine, in plan and also elevation.747 Perhaps the main reason for the

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746 Cassutto (1979), p. 229. Cassutto makes the connection between the technology employed and the size of spans. In stone masonry, using vaults for spanning, the optimal span is 4.0 meters (13.2 ft.) in both directions (p. 219). In heavy timber beams or steel beams, it was possible to span larger distances.

symmetry in plan was the structural basis, but it was also a common configuration practiced in Europe and the U.S.

The Palestinian Central Hall House plan was also symmetrical and in many aspects resembled the traditional plan used by the Templers. Notwithstanding these similarities, it is difficult to make a direct link between the two. The Templers were familiar with this plan type from Germany and the U.S.. Fuchs (1998) estimates that the central space plan might have been imported into Lebanon from these sources. It is likely that the plans the Templers introduced in Palestine even preceded the Palestinian Central Hall house type, since it was characterized by clay tiles and steel “I” beams for ceilings and balconies. The clay tiles appeared first in Templer houses, and the “I” beams became frequent in Palestine only in the 1890s, with construction of the railroad line to Jerusalem.

► Openings in masonry stonewalls with segmental arches for spanning. In masonry walls, when openings are needed, the simplest way of spanning openings is to place single stone over them. This solution can be seen in Israel, mainly in old Arab villages, in watchman’s booths in the fields, and also in ancient structures. The traditional Arab domestic house used small openings, sometimes with a single stone, or a wooden beam and, for bigger openings, a semi-circular arch.

The use of a stone beam is problematic: the span is limited, and the beam develops tension stresses which stone is not good in sustaining. It is also hard to

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find, move and work with large stones. The solution is an arch, composed
smaller stones, which thanks to its geometry can divert loads created by the wall
above the opening sideways. “An arch collects the vertical loads and turns them
into lateral ones.”

The higher the arch, the better it withstands vertical loads, and resist
bending stresses. Thus segmental arch is less effective structurally than a
semicircular or pointed arch, but has its own merits: it is simpler to construct,
uses fewer stones, (which are more expensive than regular stone for walls),
because they are of better quality, and need be accurately shaped and cut. A
segmental arch also makes it easier to fill the opening with a window or shutters
or other elements made by non-masons; the size of the opening determining the
effort needed from these artisans. The preference for a segmental arch over

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750 Gordon (1981) p. 188.
other types makes sense; it is a good compromise between the ability of stone to withstand compression stresses, and the (minimal) geometry needed to span the opening.

Segmental arches were common in Europe and the U.S., and were a practice introduced in Jerusalem by Conrad Schick, even before the Templiers arrived, as he writes in his memoirs.752

Schick and his contemporaries used the segmental and semi-circular arches on European structures, these can be seen in Jerusalem (Talitha-Cumi, and the Schneller compound, 1860s).753

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752 Schick (1897), p. 106. Schick described the segmental arch solution as an element he introduced in the ‘Talitha-Cumi’ project he designed and built in 1868 in Jerusalem. “[…] And from then on, all are using arches and vaults almost on all windows and doors in Jerusalem.”

Openings in masonry stonewalls had a molding frame. Almost all openings in the traditional Templer House have a molding made of stone (and later concrete) frame which projects out about 6 cm. (2.4 in.). This was also typical of other European institutional buildings, especially in Jerusalem, and in houses, like Finn’s House. Usually the stone would be of better quality, harder, and more carefully cut. In many instances the molding frame surface finish is differently shaped from the rest of the wall, creating quoins or other geometrical pattern. Ben-Artzi (1996) described the Templers’ ‘decorative elements’ and included the window frames in the same category.754 The purpose of this molding is not only to articulate the opening and add interest to the flat façade, but also stabilizes the opening edges, making a more massive ending to the wall where the opening starts, better ties the last columns of stones where the wall stops, and integrates these stones into the wall, creates an accurate size and shape for

windows, shutters and bars; and helps in waterproofing due to the accuracy and denser consistency of the molding stone.\textsuperscript{755}

\textbf{Photo 323}: Molding frame, Frank House, Jerusalem Templer Colony.

\textbf{Photo 324}: Molding frame, Fast House, Jerusalem Templer Colony.

Photos: May 2002. Both openings have the proportion of 1:2. The molding has a diminution on the inner side for aesthetic reasons, and, in some cases, to collect the shutters. In the Frank house opening, the molding frame is made with quoins, to better stabilize the frame. The arch, made with softer and more expensive stone, is protected from loads by a relieving arch above it.

Arab Central Hall Houses in Haifa also used the same articulation,\textsuperscript{756} probably for the same reasons described above.

\textbf{Photo 325 and Photo 326}: concrete window molding frames, Wilhelma.


\textsuperscript{755} Cassutto (1979), p. 220.

\textsuperscript{756} Fuchs (1987), p. 42.
In the photos above, (left), Bulach house, simple prefab concrete molding frame. The frame is not monolithic, but made of segments, for ease of transportation and construction. The hinges for the shutters are anchored at the concrete factory during the pouring of the element. The same diminution as in the stone molding is apparent in this product. There were a number of variations for the products, ranging from the simple to a more ‘stylized” and intricate. (Left, at Old School building, Wilhelma).

The Templers pioneered in introducing reinforced concrete prefab elements, which substituted for the expensive cut stone, not always available in locations such as Wilhelma, which had no stone quarries in the immediate vicinity,\(^{757}\) and not always accessible to stone cutters and masons.

The use of prefab concrete molding frames intensified and enhanced the Templer style, because it allowed affordable, mass-produced, repetitive industrialized elements, which soon appeared on many houses in the Templers’ Colonies, and were a model for imitation by Jewish manufacturers such as the Chelouche Brothers from Tel Aviv.\(^{758}\) Templer manufacturers of prefab elements sold their products also to non-Templers like Jewish builders in Tel Aviv.\(^{759}\)

\(\blacktriangleright\) *Openings had wooden shutters, usually painted green.*\(^ {760}\) This was the equivalent of the Arab *Mushrabiyyeh* (wooden latticework) but with blinds, usually

\(^{757}\) In Wilhelma there are very few limestone houses. Stone had to be transported from other locations, and stone-cutters and masons were an infrequent commodity. Most of the houses in Wilhelma are soft limestone (*kurkar*) and some are of adobe wall construction.


\(^{759}\) Duvshani (1993), p. 188.

\(^{760}\) Kroyanker (1987b), p. 24, regards the green shutters as a typical feature in Templer architecture.
adjustable, and made use of metal hardware: locks, closers, stoppers and hinges. The shutters were machine-manufactured and produced in the joinery, not improvised on-site. There were joineries and mechanical carpenters’ shops of Templers in Jaffa, Venus in Sarona and Gottlieb Ruff in Haifa. Templer businessmen like Breisch and Dück imported lumber for building construction and joinery.

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763 Ibid, p. 130.
The most famous hardware used by Templers with the shutters and later by Jewish builders was the stopper, named by the Jewish builders ‘menchalakh’, (meaning ‘little people’ in Yiddish). The stoppers were shaped like humans and anchored into the wall.
In Jaffa, the Frank Guest-House and the Hotel Du Parc, were built by the American settlers, and later acquired by the Templers who developed them further. The green shutters became an integral part of the general appearance and markers of the architecture, and still remain. Frank also opened a joinery, perhaps producing these shutters.

The shutters visual is also very common in the U.S. in locations influenced by German material culture: communities of the Great Plains such as Zoar, Ohio, Amana colonies in Iowa, and many German-influenced sections of Midwest towns.

Similar shutters can be found in Israel in ‘German touched’ settlements. In Kinneret, a Jewish settler and surveyor Joseph Treidel, built his house in 1910 with a heavy Templer influence, constructed with limestone and basalt stone, it originally had wooden shutters, some of which remained. In Merhavia, in the

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765 The Treidel family insists that the house was designed and built by “with certainty, a Templer builder from Haifa”, in cooperation with Joseph Treidel. (Gabi Treidel, personal communication, May 2002).
first ‘cooperative court’ houses built in 1912 by German architect Berwald, the same shutters can still be seen. In *Deganya*, the first houses also built by Treidel\(^{766}\) in 1911, again with the same German construction tradition, and as was seen in Germany in government settlements projects at Posen.\(^{767}\)

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\(^{766}\) Treidel sub-contracted Templer mason Joseph Wennagel from Sarona to do the construction, as surfaces from the manuscript by his granddaughter, Blaich (2003), p. 11. It is possible that Wennagel built and/or designed Treidel’s house in *Kinneret*, not far from *Degania*.

\(^{767}\) Shilony (1999), pp. 142-143.

\(^{768}\) Shilony (1989), pp. 198, 200.

\(^{769}\) In written testimony collected by Mr. Shmuel Yisraeli, Kenneret archive director, February 1980, he interviewed Sa’adia El-Azam, an apprentice with a German carpenter from Haifa named Haar. Haar and his workers were hired by the Beilharz brothers from Haifa, “[…] who built the houses of Kinneret.” Tal (1994), p. 138 (footnote), quoted Ruppin, in 1912, who was compelled to hire Treidel to design the houses of Degania, because he “could not find any other competent architects” in the region. Perhaps this is also why Ruppin imported Kauffmann from Germany in 1920 [see Bein (1971), p. 123]. Shilony (1988), p. 61, reveals that Treidel was a key figure in the design and construction of many northern settlements, among them structures in Degania, Merhavia, Kinneret, and Poriyah. Treidel and his partner Krause had offices in the German Colony in Haifa and, according to Shilony (1988), p. 66, Treidel was on friendly terms with the Templer Gottlob Bäuerle, a gifted engineer, architect and builder from Jerusalem; Shilony (personal communication, May 2002), relates Treidel’s extensive “[…] close connections with the Templers in Palestine, especially with the German Colony in Haifa […] he had good ties with G. Schumacher and his family, as well as with several others.”
► *Projecting belt courses*, signaling the floor level on the outside of the wall. The Templers were not the first to introduce this feature; other European builders used it mainly in Jerusalem in 'official' structures: the Austrian Hospice (1857), designed by Endlicher, the Austrian Post House (1858); Miskkenot Sha’ananim (1860) designed by William Smith; the Russian Hospital (1863) and the Russian Hospice (1864) designed by Eppinger, and others. It became a Templer characteristic, and appeared also in Arab and Jewish domestic architecture. These courses appear already in the first ‘traditional’ houses in the Haifa Colony, and in later houses such as the Weller House (see images in p. 468).

**Figure 82: Jerusalem, Schneller Compound, main structure, 1860s (detail).**

Source: Kroyanker (1996a), p. 116. This visual - common in Europe and the U.S. - was present in Palestine in institutional buildings before the Templers arrived. They were among the first to use it for houses.

**Photo 338: Jerusalem, belt course detail, Bukharan Quarter, 1890s.**

Photo: June 2000. A rare opportunity to see a belt course where part of the wall is removed. The belt stone is inserted about 2/3 of the wall thickness, creating an accurate course and a leveled mark for placing floor beams.
The basic reason for their use is aesthetic: the wall plane is broken into smaller units, facilitating scale moderation; the façade is enriched; the horizontal visual helps to reduce the height effect of the structure, in line with the ‘low profile’ design policy described above, and because it was considered a non-ornamental element, it was ‘legitimate’ to use.

It helps to move the water away from the wall surface by creating a water table, a small projection that causes the water to drip away rather than running on the wall surface. It signals the existence of a second floor, makes a statement of technological sophistication and construction skill, and helps masons maintain a leveled course, especially when the stone cutting is rough and less accurate, by doing a one-on-every-floor one accurate course, thus correcting the accumulated deviation created by the rough stone-cutting.

Belt courses In Jerusalem appear in Mishkenot Sha’ananim (1860), and years later the Villa Nashashibi (late 1930s) designed by an Arab architect, Spiro Huri.771

Cassutto (1979) hypothesizes that the belt course might be an echo of an old Arabic tradition of marking floors when the construction in not continuous and done in phases, and mentioned the term zoonar used by Arab builders for the belt course.772

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Photo 339: Jerusalem, Mishkenot, 1860.
Photo 340: Jerusalem, Villa Nashashibi, late 1930s.
Photos: April 2001 and January 2001. In both instances, the main architectural consideration for using the belt course was to provide a horizontal element on the façade, for interest and to reduce the vertical effect. In the Nashashibi building, the belt course ties together the masses of the building; in Mishkenot, the belt course is a measure of accuracy needed to compensate for use of roughly cut stones. The same type of two close and parallel belt courses appears in the Schneller Compound main structure (see above).

Photo 341: Wilhelma, Bulach House.
Photo 342: Wilhelma, Wied House.
Photos: April 2002 and May 2001. The Wied House, built about thirty years later, with a totally different technology, also has the belt course. The visual has become an architectural syntax element.

Photo 343: Heidenheim, sill course in old house.
Photo: August 2002.

In Württemberg, the projecting belt course was not a common visual, mainly because the usual construction method relied on lumber. In Heidenheim,
for example, where stone and brick are available, some builders used sill course instead of belt course, combining the sill courses with windowsills.

- **Entrance to the house, which is raised above grade (ground level).** Ben Artzi (1996) described the traditional Templer house as having an entrance raised above grade, and determined that the reason for raising the ground floor was to level the floor when the natural topography was uneven. Additional factors need to be considered from an architectural point of view:

  1. Almost all domestic houses were raised, even when the topography was flat or slightly sloped. One reason is that the cellar, common feature in most houses, had to be illuminated and aired through small windows placed between grade and the lower surface of the ground floor.

  2. The cellar was excavated, a complex and costly operation when carried out in soft limestone or other hard substance. Raising the basement floor meant less excavation; perhaps this is why most basements have a minimal height, about 2.0 meters (6.6 ft.).

  3. Raising the ground floor level means some degree of detachment from the street or yard level where animals (either domesticated or stray) were free to move; it provided some protection from disease.

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4. In this part of the world, dust is a daunting problem. Detaching the ground floor from the yard and street level helps to keep dust from the inside of the house.

5. In most places, the less one excavates, the better off one is, in terms of waterproofing the basement from underground moisture.

6. Detaching the ground floor from grade level helps to cool the house, creating a distance from the ground, which radiates heat from afternoon until well into night.

7. Architecturally, raising the house one meter or so above grade, enhances its' ‘presence’, something that bears on,

8. The ‘ideological motivation’, the importance of displaying Templer achievements in terms of technological advancement. Having a house four levels high, with a basement and usable attic, was unprecedented in the building design and construction arena of mid-19th century Palestine: no doubt the message to the general populace was: watch our doings, associate with us, and be rewarded.

In Württemberg, many houses had a basement floor with windows above grade for cooling and general storage. This was especially frequent where stone and brick masonry were available.

776 See Alexandrovitz (2001), p. 11 and 24. In the Chelouche Houses in Tel Aviv, Alexandrovitz points to these functions of the raised ground floor: 1. Accentuating the location of the entrance, 2. Separating ground floor from street level, 3. Possible influence of Templers’ house design.
Photo 344: Sarona, house with a basement.

Photo 345: Wilhelma, basement window of Bulach House.

Photo 346: Jerusalem, Entrance to Christian Imberger House.

Source: Photo by M. Kucik, in Kucik (1998), p. 57; Photos April 2002 and May 2001. The merits of having a raised ground floor. In the Bulach House, Wilhelma, north side; the basement has the same footprint as the rest of the floors. The peeling stucco shows the soft limestone construction of the basement, with a wall thicker than the upper floors walls. This is done for stability and waterproofing. The basement window has no molding, but is carefully cut with a diminution about 3 cm. (1.2 in.) deep, to receive a shutter. Right: entrance to the Christian Imberger House, Jerusalem Templer Colony. The house is only one storey high, and the stairs facing the street compensate for its minor ‘presence’. So does the neo-Baroque decorative (and expensive) stonework.

Photo 347 and Photo 348: Houses with cellars in Heidenheim and Herrenwies, Württemberg.

Photos: August 2002.

► Stone Gutters, were one of the most carefully thought-out details in Templer builders and architects invested design effort in the gutters for practical reasons; aware that rainwater was a major maintenance problem in the region, they attempted to minimize or eliminate it. On the other
hand, there was a need to collect rainwater. The change over, from flat roofs to pitched roofs, in the beginning of the settlement venture, was a move toward that end. Simple dwellings used zinc sheet metal gutters and downspouts, and where limestone, stonecutters and means were available, an elaborate detail was implemented which eventually became a distinctive architectural feature.

In the absence of communal water systems, settlers had to collect rainwater and store it in cisterns below basement level. The gutters which collected rainwater from the roof, directed the water to downspouts for that purpose.

By the time the Templers started building houses, there was already substantial skill in Palestine regarding intricate stone details. When the Templers arrived, they relied on local masons and stonecutters but also on other Templers, familiar with stone, like Jakob Schumacher, Wennagel, Blaich, Beilharz and others.
Photo 350: Stone gutter, Jerusalem, near the German Colony.
Photo 351: Stone gutter detail, Struve house, Haifa.

Photos: June 2000 and April 2002. The zinc downspout has to be linked to the wall so stonework must adjust to the setup. The collector is not at the end of the gutter, because the slopes would become too noticeable. The standards set by the Templers were quickly challenged by neighbors. Right, stone gutter detail, the Struve House. Similar detail appears on the Schumacher house, hinting at design work here by Schumacher.\textsuperscript{777}

The stone gutter became a distinctive architectural visual because it ran the entire length of the façade facing the street, (on the shorter façade there was no need for a gutter), and delineated the building skyline, one of the very few visuals, that were functional as well as decorative, sensibly designed and in-line with the general low-key quality of Templer architecture.

\textsuperscript{777} Jakob Schumacher knew Struve from the U.S., where they pioneered together on the Maresa settlement. Schumacher arrived in Haifa on October 1869, Struve on September 1873. It is possible that Struve trusted his old friend from Buffalo to build his house, though no documentation supports this.
Figure 83: Freehand drawing of a stone gutter.

Drawing 2002, based on similar detail by D. Moshley, Haifa Preservation Survey, 1999. The gutter is made of segments 40-50 cm. (15.7 – 19.7 in.) long, connected probably with a tenon-and-chisel and a cementing mix. The segments have a massive cross section, for stability, and rounded corners to reduce chipping. The first row of clay tiles projects into the gutter channel. The sheet metal under the first row of tiles helps prevent dust penetration under the tiles, and water overflow into to attic space, in case the gutter is clogged.

Figure 84: Wood gutter common in American houses.

Source: Huntington (1967), p. 570, Fig. 72-2. A similar design, suggesting that the stonemasons imitated the wooden gutter.

This detail is almost a copy of a similar wood gutter common in the U.S.\(^{778}\)

The Stone gutter detail connects to the cornice return, also possible U.S.-import detail.

► **Cornice Return.** A feature likely to have been imported from the U.S. by American Templers, namely Jakob Schumacher, and also from Germany by German Templers. The cornice return was a common feature in the U.S., frequently found in German-associated communities, such as the German Village in Columbus, Ohio, or the German Colony Zoar in Ohio, or the Amana Colony.

Settlements in Iowa. Andelson (1984) described the common *spatzenkasten* (German for ‘sparrow boxes’) detail in Amana, which protects the exposed ends of the horizontal frame beams at the lower corner of gables. The name derives from birds’ building nests in this kind of protected nook.\(^{779}\) It may have been another form of the cornice return, sometime called ‘returned gable’.

\[\text{Photo 352: Cornice return detail, Schumacher house, Haifa.}\
\text{Photo: April 2002. Chisel prints made by Schumacher have survived 133 years, in an accurate and crafted simple design.}\
\text{Photo 353: ‘Sparrow boxes’ in Ebenezer Hamlet, Cheektowaga New York.}\
\text{Photo by Joan Sambrotto, April 2001. The house dated ca. 1850 by the city preservation dept., is located in the ‘Ebenezer’ community, which later moved to Amana, Iowa, and close to where Schumacher lived in Buffalo.}\
\]

In Württemberg, cornice return detail is often found in historic structures. In Maulbronn, only a few miles from Stuttgart, I documented details that might provide structural explanation for the cornice return, so common in Württemberg and exported to the U.S. and Palestine.

The top quoin stone, resting on the lower quoins which stabilize the corner, serves as an anchor for the end rafter beam, in lieu of a connecting beam (‘A-frame’) which has been avoided in order to simplify the structure. As happens in many such details, it becomes also an architectural detail, beyond the structural, hinting at a classical pediment.

The same detail is to be found in the Templer Colonies of Israel, many on ‘American Templer’ houses. Visually, or architecturally, the cornice return is the right thing to do, providing clear, ‘clean’ termination of the horizontal line of the stone gutter. It also provides a ‘stopper’ for the lower stone of the stone coping on the gable, preventing it from sliding out (see image p. 407 above, the Struve house), it is also a clever solution to locate the drainage collector (the leader head), and a starting point for the downspout. This means that the downspout was located on the side of the building, making a ‘clean’ main façade. It may have also been an addition of a classical element – a hint of a pediment – a common visual in U.S. houses in the 19th Century. The pediment representing
'classical antiquity' was probably a vogue which Schumacher and his contemporaries wanted to introduce: it was in line with the biblical nuance they wanted for their houses, like the Biblical texts above doors.

Figure 85: Detail of a typical cornice return, in Amana, Iowa.
Source: Land and Community Associates (1977), p. 20. The detail is wood imitating stone. Similar details are found in the German Village in Columbus Ohio.780

Photo 356: Haifa Ottoman train station.
Source: Yoel Amir postcards collection. Perhaps designed by Gottlieb Schumacher, Jakob’s son.

➤ Built chimney with a flat cover, to protect it from downdraft. Chimneys are a relatively new invention, although in the history of architecture, fire has been inside houses from the beginning of civilization. In Europe, chimneys started to appear in the 16th century, about the same time of the American colonization. Chimneys were a cardinal invention because they permitted the flooring of upper stories by having smoke escape through controlled shafts.781

Weaver (1986) points to the ‘two room plan’, which Germans from South Germany imported to the U.S., and the connection between plan and location of

the chimney. The plan would normally have a *Küche* (hearth room) and a *Stube* (stove room), a central chimney with a hearth opening to the Küche, and a stove opening to the Stube. The stove in the Stube provided both cooking and heating, thus economizing on wood fuel.\(^{782}\)

The built chimney became also a common characteristic of Templer buildings in Palestine, where it was usually located at the high point of the gable. Many houses had two chimneys: one for heating, one for cooking. Most chimneys were very simple, a prefab concrete tube, square in cross-section, hooded with a concrete plate to eliminate downdrafts and rainwater. The design type of chimney was without question imported from Germany, as is to be found in many Württemberg buildings.

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\(^{782}\) Weaver (1986), pp. 254-256.
Compared to Arab houses, those constructed of stone, the chimneys which the Templers used were a great advancement. In Arab dwellings in the Hebron Ridge cooking was done outside; there were very few windows, sometimes only a single one, and the chimney was just a hole at the high point of the vault to release the smoke. In some houses, there was a simple ‘cooking spot’ inside the house, smoke being released through a wall cavity covered on top with a clay jug. Ben-Artzi (1988b) describes the smoked-filled house in Arab communities, due to the lack of proper chimneys. Most Arab peasant houses lack a chimney, but “[…] whenever there is a chimney, it has been achieved by omitting, during the process of building, one stone in every level of the inner course […] At times, a broken pitcher or a qadas fuhrar (clay tube) may protrude above the roof at the continuation of the chimney.”

Photo 359: Chimneys, Schmidt Pension, Jerusalem Templer Colony.
Photo 360: Chimney, (unidentified) house, Haifa Templer Colony.
Photo 361: Chimney, Wagner House, Bethlehem Templer Colony.
Photos: May 2002, April 2002, and September 2002. All designs are similar, with variations in height, and cross section size. The design of the chimneys has not changed even when the Templers switched to the International Style.

786 Canaan (1933), pp. 61-62.
Compared to this, Templers’ chimneys were harbingers of a new standard of living: the cooking indoors, houses with heating systems, and it all showed on the outside.

► Front-Facing ‘T’ in plan, cross-gabled Roofs. A number of Templer houses borrowed this form-syntax from Württemberg. The ‘front-facing T’ was a simple means of breaking the flat façade and making it richer, sometimes with a false gable, also allowing for more space in the attic, without increasing the height of the structure; a similar function of a large dormer, starting at the lower line of the main roof.

Figure 87 and Figure 88: Cross-Gabled roof and a front-Facing T plan.

In Württemberg, these were common shapes and in use in many locations, mostly in urban ones. The design delivers a message of ‘stateliness’ by creating complexity and hinting at a more complex design and construction. It also accentuates the entrance, always located at the T’s end, and creates an entrance sequence. In Württemberg as well as in Palestine, this was always coupled with an elevated entrance, amplifying the effect.
Hip-on-Gable roofs. The most frequently used Templer roof type was the Hip-on-Gable. Jewish builders in the Jewish colonies used the Hip Roof extensively, because it is more effective structurally. In such roofs, however, the possibility of using roof space as an attic is less likely. The hip-on-gable is a compromise, allowing use of attic space, while taking advantage of the hip roof structure.
The hip-on-gable was imported from Württemberg, where it was a common form, made possible by the extensive know-how of wood frame and half-timbering construction. The builder could use less stone for the gable wall, making it lower, and gain the rest of the height with wood construction. Some hip-on gable details were used for shading, and protection of exterior spaces.
Photo 369: Hip-on-gable roof for shading, Württemberg.
Photo 370: Hip-on-gable roof for shading, Wilhelma Hahn House.
Source: Schöck (1982), p. 71, Abb. 28, and photo September 2002. The roofs have very different pitch, but the function of the hip-on-gable is the same.

Photo 371: Hip-on-gable roofs, Haifa Templer Colony.
Photo: April 2002.

Photo 372: Hip-on-gable roof, Beilharz House, Betlehem.
Source: Collection of A. Dressler, Bet-Lechem Haglilit.

 ► Fences and Gates. Templer properties had stone fences, usually built with local stone, and a gate in the fence, usually designed with two concrete or stone pillars, to mark the gate and anchor the gate hinges. Other fences were wooden bars, iron bars on a lower built stone wall, and sometimes even a plain net fence. Since the fence is the seam line between the street and the private
domains, it is the most exposed element of the house; in the Templer Colonies, where the overall appearance of the colony mattered, this detail was perceived as an integral part of the houses' architecture, not merely a street or environmental design component. In some colonies, (like Jerusalem, Wilhelma and Bethlehem), there was more uniformity in the fence detail, using the same materials and design, thus contributing to 'stitching' the houses with the same detail, as a visual cohesive factor.

![Photo 373: Rephaim, Jerusalem, main street fences.](Image)

Source: Sauer (1991), near p. 160. No date provided. The typical fence detail was a lower stone wall, and an upper iron fence with spear head elements at the top of the vertical bars. This allowed some protection against animals and gave transparency between street and houses. The uniformity of the detail provided visual cohesiveness.

The same effect of cohesiveness was attained in Haifa, Bethlehem and Wilhelma; the repetitive detail of the stone fences matched the stone houses, providing separation between public and private domains. Later fences in Haifa or Sarona disclosed a much higher degree of transparency, perhaps reflective of the Temple Society members inclination to increased openness and outreach; they needed to present themselves to the locals, rather than be secluded, they
made business, and interacted, with the growing general population, and the security situation was improving.

**Photo 374 and Photo 375: Haifa, main street, and Wilhelma, main intersection, early 1900s.**
Sources: Yoel Amir postcards collection and Albert Blaich Family Archive, Australia. Both are details from larger photos. In Haifa as in Wilhelma, there were considerable segments of continuous stone fence, with breaks for gates and entrances for vehicles.

**Photo 376, Photo 377 and Photo 378: Bethlehem, stone fences in various locations.**
Sources: photos May 2003 and the Albert Blaich Family Archive, Australia. The fence was built in the same way as in Wilhelma, with a concrete mix coping to stabilize the wall. The coping had steel reinforcement in it. The wall was made with roughly cut stones, narrowing as it rose.

**Photo 379 and Photo 380: Fences in Haifa and Sarona colonies.**
Sources: Image by D.G. October 2002 and the Albert Blaich Family Archive. The fences as semi-transparent walls, maintaining separation, but showing the house behind. On the right, the Neef House where the fence is designed in the same morphology-syntax as the house itself.
Local Elements Not Adopted by the Templers

In the traditional Templer architecture certain elements appear which are not representative; there were certain houses that stood out, either because the owner was very affluent, or in the architecture / design / building construction business. Examples were the A. Dück house and the J. Schumacher house in Haifa, the I. Briech house in Jaffa, the Ehmann and the Bäuerle houses in Jerusalem. These exceptions sometimes allow us to learn more about the majority of the houses. The following are some observations to substantiate this argument.

► Almost no full arches or pointed arches. The Schumacher house in Haifa is one of the few instances that shows a series of full arches, but stands out as not representing the majority of the houses. The Breicsh house in Jaffa,787 and the Ehmann and Baeuerle houses in Jerusalem are also such deviations.

In my assessment, it is possible that the Templers did not want their architecture identified or associated with local Arab architecture. They regarded themselves, at least in the first years of settlement, as bringing new input into the local culture, architecture included, and preferred to be separated from the local culture in terms of architectural expression. They adopted the technology but not the syntax. They wanted to create a new material culture, of their own, reflecting their values, and this was their missionary statement.788 Schumacher, however,

787 Built by Imanuel C. Breisch, a prominent Jaffa Templer who handled the purchase of the American Colony for the Temple Society. Eisler (1993), p. 47, quoted the Warte 15 describing the big house, whose “[…] upper level arched verandas gave it a beautiful appearance.”

deviated from the mainstream architectural *bon-ton*. Probably impressed with the *Riwaq*, his application of arches in his house suggests his feeling about becoming culturally rooted in the new locality.

Schumacher in Haifa and Bäuerle in Jerusalem, both Templer architects, used in their own houses the Riwaq motif, although the houses were not Riwaq type, but these were isolated cases; moreover, the Riwaqs were also used as ground floor porches (see p. 111 and p. 433).

![Figure 90: Bäuerle house, Templer Colony, Jerusalem. Source: drawing by Kroyanker (1966a), p. 181.](image)

![Photo 381: Bäuerle house, Templer Colony, Jerusalem. Photo: May 2002. As in the Schumacher house in Haifa, this is a tribute to the *Riwaq*, but not a *Riwaq* house.](image)

The *pointed* arch was identified with Arab culture. Ragette (1974) traces the origin of the pointed arch to the 6th Century A.D., to Mesopotamia and crowned it “the trademark” of Eastern Arab architecture. The pointed arch was imported to Europe by the Crusaders from Palestine. It is likely that the Templers

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790 See section ‘Architectural Style’ for images and discussion.

791 Ragette (1974), p. 133. Ragette regards the pointed arch as an element of domestic architecture which “[…] dominates eastern Arab architecture and has become its trademark.”

sensed this association, and deliberately refrain from its application. There are hardly any pointed arches in Templer houses, though some were spotted in the Frank house in Jerusalem; in the Haifa and Bethlehem community buildings the architects used only pointed vaults.

Photo 382 and Photo 383: Jaffa, Breisch House.
Source: Yinnon (2001), p. 158 from the F. Cholten Collection, and photo April 2000. Although the house is abandoned, and the roof and veranda gone, the house still reigns supreme over the hill.

The *Liwan* house type was popular in Palestine between 1860-1900, having the *Riwaq* and its pointed arches as a characteristic feature.

In the course of time many local architects made interpretations of the Middle Eastern, or ‘Oriental’ feature. Eden Hotel, designed by Ratner, 1937; Palms House, designed by Anastas; the Wolffsohn Building on Mount Scopus, designed by Geddes, Mirse and Chaikyn, 1930; the Lawyers Chambers Building, designed by Friedman and Blatt, 1985. All these, except for the Wolffsohn Building, use the *Riwaq* as a means of enhancing and marking the entrance. In the Wolffsohn Building, Geddes et al used the *Riwaq* for rhythm and to break

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794 Kroyanker (1966a), pp. 81, 131, 170, 205.
down the monotony of the large masses as well as to ‘orientalize’ the building, together with its dome, recesses and stone work.

![Figure 91, Figure 92, and Figure 93: elevations of Liwan houses, Palestine and Lebanon. Source: Drawing by Kroyanker (1985), p.76, a house in Sheikh-Jarrah, Jerusalem; drawing by Fuchs (1987), near p. 107; Ragette (1974) p. 101, fig E68. This visual was never adopted by the Templers. Arab architects, on the other hand, quickly adopted western technologies for local architecture.]

► No domed roofs. Use of full and pointed arches, vaults and domed ceilings was common in local Arab architecture; trees were scarce in Palestine, forcing the inhabitants to use stone wherever possible.\(^{795}\) The domed roofs seen in Judea and Samaria mountains and the north were a logical and practical way of spanning ceilings, especially in hot climates.\(^{796}\) and, in a number of variants, were used by Arabs as active surfaces (drying fruit, for sleep on hot summer nights).\(^{797}\)

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\(^{795}\) Canaan (1933), p. 36.
\(^{796}\) Pinkerfeld (1943), p. 125.
\(^{797}\) Hirschfeld (1987), p. 87.
Photo 384: Iyata, Hebron Ridge, single space domed dwellings.
Source: Hirschfeld (1987), p. 60 photo 38. Houses were built on exposed limestone rock surfaces for stability, with wall thickness exceeding 1.00 m. (3.3 ft.). The reason was to ensure resistance of walls against the horizontal thrust of the domes. These houses were built without architects.

Figure 94: Hebron Ridge, cross-vault construction.
Source: Hirschfeld (1987), p. 69, fig. 41. Cross-vaults, sometimes called ‘groined vaults’ are based on the principle that the folds created by the joining of the vaults receive the horizontal thrusts from the vaults and direct them downward, where they are resisted by the buttresses in the corners. The wider the span of the vaults, or the flatter the arch, the more massive the buttresses must be. The walls are not bearing walls. Anything under the arches has no support function, and wall thickness is used for insulation and niches.

But for the Templers these domes were, in all likelihood, closely associated with Arab culture and identity; in few instances they used vaults as construction technology: for example in the Gemindehaus in Haifa, their first building in the Holy Land, and the Gemindehaus in Bethlehem, many years later. It is a costly methodology, in which the labor component is dominant. The Templers preferred to use timber and later steel ‘I’ beams and reinforced concrete, and abandoned vaults altogether, (except for basements), thus designing houses with thinner walls. The change to the new technology led them to become less dependent on local labor, and develop their own businesses in the construction trade, importing new materials and specializing in their applications.
No ornaments or decorative elements, except in a very limited number of houses, usually of wealthy Templers, and in public buildings which were larger in size. The only decorative element inside Templer houses was floor tiles, or some elaborate wooden stairs detail, interior design components, manufactured by the Wielands and the Beilharzes, and available from Templer craftsmen. Integral exterior decorative details, (quoins, window frames, stone gutters, balcony supports, or returned cornices) relied on craftsmanship, neatness and accuracy for effect. There is hardly any use of paint on the exterior, except for wooden components, like shutters and windows. Decorative interior painted walls appear in Templer houses around the 1900s as an additional ornamental element. These were documented only recently, with the Sarona and Haifa Colonies Preservation Projects.798 These painted decorations were applied to the second and third coats of paint, leading the preservation teams to conclude that they were not part of the original houses, but rather added later.

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In the photos above, the most ‘un-Templer’ house, in terms of ornaments, of a Templer settler. Dück was a well-to-do merchant who came to Haifa from the Caucasus. Left: the elaborate stonework seen here was matched only by public projects, which could afford it. Right, the three-centered arch, was rarely used by Templers’ architects. The inscription above the opening says “Ebenezer 1893”, the same title which Matthäus Frank used on his house in the Jerusalem Templer Colony twenty years earlier. ‘Ebenezer’ was also the name which the Amana ‘Inspirationists’ from Württemberg gave to their first communities in Buffalo, NY.

In public facilities, the Templers allowed themselves to be more decorative. The schoolhouse detail (see photo below) is a series of decorative ‘stylized’ prefab concrete elements, probably manufactured at the Wieland factory. This was a public facility, which, in Templers eyes, justified elaborate detail, and was ‘outside the code’ for dwellings like that of Bulach, almost across the street. Bulach used an exposed “I” beam and a simple support under the beams projection.

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800 In the Old Testament, 1 Samuel chap. 7, verse 12: “Then Samuel took a stone and set it up between Mizpah and Shen, and called its name Ebenezer, saying “Thus far the Lord has helped us.””
801 In the mid-1840s, Germans from Württemberg, Alsace and Switzerland settled near Buffalo, NY, in a cluster of communities they named Middle Ebenezer, Lower Ebenezer, Upper Ebenezer, New Ebenezer and two more villages in Canada. The choice of the name is not accidental: it stands for ‘help’ and ‘stone’, meaning that they attained salvation by relocation, building the community and constructing houses. (Liffring–Zum Bourret (1975), p. 2; Liffring–Zum Bourret. (1988), pp. 14-22.)
In the spirit of individuality and the difference between public and private domains, within many Templer houses one may find decorative elements, painted floor tiles being the most frequent, as well as the painted walls, common in Württemberg.

Photo 389 and Photo 390: floor tiles, Betlehem and Wilhelma.
Source: images by D.G. July 2000 and May 2001. Left: in the Wagner house at Betlehem, right, Sawatzky House, Wilhelma. A surprisingly colorful and geometrically intricate collection of designs; usually rooms were tiled with different tiles for different rooms. This was the territory of the individual, where there was more openness towards color, and sophisticated and richer design.

802 I found identical floor tiles in the ‘Allenby House’ in the Schneller Compound in Beer-Saalem (now Netzer Sireni). Many house in Tel Aviv still have these tiles, ‘mute evidence’ of the Wielands’ good business.
The evolution of decorative detail in Templer architecture must be weighed against the general idea that they were (without risking a blanket opinion) highly practical people, that they had “little time or money for luxuries”, and that they adhered, at least in the first years of settlement, to Hoffmann’s ideas of modesty and simple life. The decorative detail in the first year’s houses should be attributed, in my assessment, to a desire to demonstrate skill, and a certain cultural charge; their houses became, to some extent, ‘advertisements’ for what they could do and what their skills were. The change in attitude, and the adoption of a more decorative attitude in later years may be attributed to a few major factors:

1. As the Templer populace becomes more removed from the basic ideology and Hoffmann’s teachings, so does the quality of modesty.

803 See Dr. Laemmle’s testimony Appendix A, p. 550 herein.
2. Improvement in the Templer’s overall economic situation in the 1920s when the war was over, and their increased business with the growing population in Palestine. More interaction, more money, and with the bettering of the standard of living, the tendency to search for fancier architectural expressions.

3. The Templer can no longer ignore anymore the tremendous construction activity of Jews and Arabs during these years, and the rapid development of urban areas, and have to compete architecturally, because, in the first place, their architecture expresses a ‘higher level’ than that of the rest of the population. Unable to beat their competitors, the Templer join them; they use the same syntax, and by so doing actually assimilate into the cultural environment and losing their distinction.

**Comparison: the American and Eretz-Israel Templer Settlements**

The houses in Tempelfeld, though built thousands of miles away from Palestine, with totally differing construction methodology - exclusively of wood frame construction - do share certain things with the Palestine Templer’s settlement pattern:

1. Having a two-phase settlement procedure, in which permanent housing replaces inferior quality temporary dwellings.

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804 Canaan (1968), pp. 16-17. Canaan relates the rehabilitation process of the German Colonies, assisted by the Jews and the resultant increase in business the Templer experienced.

2. In many cases multi-level, sometimes the second floor added on at a later phase.

3. Separating bedrooms from dining, kitchen, and other daily functions.\(^\text{806}\)

4. Water cisterns, either under houses or next to them, as also found in the Amana and Zoar settlements.

5. Built chimneys; in most cases, one for cooking, one for heating;

6. An attic, usually used for storage, and created by the (usually) steep slope of the roof,\(^\text{807}\) typical for the region in order to sustain snow loads.

7. Ground floor which is raised above grade, also applied in other German settlements in the U.S. such as the Amanas.

Other non-Templer German-affiliated settlements in the U.S. applied similar visuals and design principles to their houses, as in the Amanas.

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\(^{807}\) McAlester (1992), p. 43.
There are also major differences: differing construction technologies; the Tempelfeld houses built of wood frame, the Palestine houses with stone masonry; the Tempelfeld houses were built in a very isolated territory. The ‘ideological motivation’ factor discussed by Ben-Artzi (1996), did not take place there: the Tempelfeld architecture was, and remained later, an honest expression of the routine of a simple farming and craftsmen community: small houses, simple and modest design. Because of the dispersion of the community layout, there was no concentration of houses to create the impression of a ‘traditional village’ with a main street one enters knowing where the village starts and ends. The only architectural communal entities were the church, school, and adjoining cemetery. This is in contrast to the layout of the Palestine settlements, where cemeteries were always outside the center of the settlement, and only ‘community buildings’ were centrally located. In Palestine, the detachment of the cemetery from the public structures was a custom imported from 19th Century Protestant Württemberg: by that time in Württemberg the cemeteries were located on the periphery of the villages, gradually becoming administered by local councils.

All the Palestine Templer settlements had a main street, which was intended to be such, all other streets being secondary. In Tempelfeld there were no streets, just named dirt roads, all with the same width. This was the observed situation as of August 2000 and 2001. The same applies to the town of

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809 Peter Lange, personal communication (email May 2003).
Gypsum, a few miles away: only one paved street, the main road (Highway No. 4). The roofs of the houses were not clay tiles as in Palestine; good quality clay bricks were either made in the region or brought in from Lawrence, Kansas, and other locations, but the main roofing material was wood shingles, sometimes slate, sometimes terne sheets.

It is also worth to compare the character of the houses in Tempelfeld as opposed to the houses in Gypsum, next door. These were two separate communities, but with some mutual affiliation: some of the people in Tempelfeld had business in Gypsum, a few Templers also lived in Gypsum, and the town provided (it still does) certain regional services for farmers in Tempelfeld and other dispersed communities nearby. The houses in Gypsum are much more ‘official’, ‘polite’,\textsuperscript{811} and ‘dandified’ than those in Tempelfeld. They are larger, higher, use more decorative detail and complex construction. The houses in Tempelfeld are not part of this convention: they are simpler, more functional, with almost no decorative detail. The same can be said when comparing Templer Colonies in Palestine - those in or near an urban environment to those which were rural and isolated. In general, houses in the Haifa colony were much more ‘invested in’ than houses in Waldheim or Bethlehem, for example.

\textsuperscript{811} Palmer & Parsons (1998c), Section 11 p. 1. Their definition of ‘Polite Architecture, is “generally designed by a professional architect […] to follow a national or even an international fashion, style or set of conventions.”
Discussing the U.S. Templers, it is of interest to note the same use and function of the front porch in the U.S. houses and in many Eretz-Israel houses, although it is questionable whether there was actually any transfer of this feature.
The front porch in the German neighborhood in Buffalo, the same porch in Tempelfeld Kansas, and the porch in the Schumacher house in Haifa, all perform the same function: they form a transition zone between the inside of the house and the outside, and, at the same time provide a pleasant protected outdoor sitting area.

In the U.S., porches are attached to houses with independent roofs; the Haifa porch however is integral with the main body of the house. But it is no coincidence that the Schumacher porch is covered with a projecting balcony, it has the same visual effect as in the other two roofed porches, providing a shadow ‘stain’ on the façade and accentuating the porch and entrance. It was common to add porches to houses as additions to living space. Holmes also described the addition of balconies to the imported houses of the Americans in Jaffa.812

This type of open porch, which was in America, was uncommon in Europe and, in McAlester’s estimation, was a result of “[…] the oppressive heat and frequent thundershower deluges of the New World summers […]”. In colonial times, in the New World, both French and English colonists started the porch construction practice in the warmer southern territories; very soon this became a distinctive American feature.813 Schumacher, and later Bäuerle in Jerusalem, recognized the value of this so popular American feature, and its’ suitability for the Palestine climate, and incorporated it into their own houses. They did so with

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style: stone arches and columns, echo the local Riwaq feature, and transmute an architectural feature. Ben-Artzi (1996) estimates that there was an attempt by the Templers to use the Levant built-form syntax and building technology: the first houses in Haifa were flat roofed, indicating that “ […] the [German] masons wanted to adapt themselves to the Eastern Country, dominated by domed or flat roofs […],” by the same token they probably wanted to do the same with the porch element: a foreign element, transplanted to the East, so it had to obey certain visual conventions. Perhaps they also operated on the assumption that the local building tradition was a result of long experience with the aggressive local summer and must therefore respond appropriately to it.

There is no systematic way to compare the two U.S. colonies and the Templer Colonies in Eretz-Israel, with the volume of U.S. -Templer architectural data gathered in this study. This study has not succeeded in locating graphic data regarding the houses built in Maresa, except for a map locating the houses. No information was found regarding construction materials, the size and volume of the houses, or how many floors there were. All we know is that there were six houses, and the layout of the colony which, compared to the Eretz-Israel colonies, was nothing more than a large compound. In Tempelfeld, which lasted longer, the evidence gathered shows a totally different house construction technology, compared to the Eretz-Israel houses, and the resemblance is only in the plan: the layout of the rooms probably draws on the same tradition as farmhouses in Germany. The layout of the Tempelfeld community was also

totally different from the Eretz-Israel colonies, resulting from the cadastral and parceling methods used in Kansas but not applied in Eretz-Israel.

The insufficient information regarding the houses in Maresa calls for further investigation of the subject, which by any logical standard must have been documented by the settlers, either with photographs or drawings. Considering that J. Schumacher, the gifted draftsman, was on the premises, it makes sense that he recorded the colony and its houses, perhaps even produced plans for the colony. More graphic data regarding the U.S. Colonies will enable a better understanding of the forces active in this yet uncharted affair.

**Influences and Diffusion**

The evolution of vernacular and domestic architecture has attracted the attention of numerous architects, ethnologists, historians, geographers and others. The question of diffusion of construction know-how (and material culture in general) from one culture to another and from one location to another has also been in an academic concern for many years. *Diffusion* was considered a major factor of domestic and vernacular architecture. Lawrence (1983) listed seven factors in this process but the present discussion will focus on Diffusion.

There is a difference between Social and Geographical Diffusions. Social diffusion is the spread of ideas, practices or customs from one class to another, usually from gentry to peasant. In geographical diffusion, on the other hand,

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the development of vernacular architecture is related to the introduction of new construction techniques by outsiders in a specific region, or by imitation among people in the same locality. This interpretation makes it possible to explain the derivation of domestic architecture in colonies. The principle of geographical diffusion implies that the architecture of a colony is the result of interaction between the images and ideas of a parent culture and the unique requirements of settlers transplanted to a completely different social and geographical context. This is a major determination, because it makes the connection between a given value system and objective on-site conditions, a situation which was similar to that which the Templers (as well as others in the U.S., for example,) encountered in Eretz-Israel. The change in geographic location was coupled with adjustment of what they knew from Germany; they needed to compromise and adapt to a new reality, to existing technologies, building materials, building traditions and available work force. The result was a totally new type of architecture.

The perspective of Social and Geographical diffusions is, therefore, an effective tool, which allows us to gain process-based observations. These seem to be the preferred method to follow when analyzing the influences of Templer Architecture.

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817 Ibid.
The Templers and their Counterparts, Interactions

The two groups of settlers from the West in Eretz-Israel, the Templers, and the Jews, constantly monitored each other and learned. The first steps of the founders of Mikveh-Israel, already in the early 1870s, were accompanied by the Templers with expressions of good will and hope for their success.\textsuperscript{819} Carmel (1990) even suggests cooperation between the Templers and the settlers of Mikveh.\textsuperscript{820} The master plan for Mikveh was prepared by Theodor Sandel, the Templer architect.\textsuperscript{821} The Jewish settlers of Petach Tikvah and the German farmers of Sarona developed positive work relationships, as did the Jewish farmers of the Jezreel Valley with the Germans of Waldheim and Betlehem.\textsuperscript{822} German winegrowers consulted their Jewish counterparts; Jewish decision-makers in the Zionist settlement movement, people like Ruppin, Warburg, Bodenheimer, Wilkanski, were in constant contact with the German farmers and regarded Templer farming as a model to be imitated.\textsuperscript{823} Similarly, the exchange in building construction technologies and materials, there was warm cooperation between Treidel from Kinneret and the Germans in Haifa, mainly the Beilhartz’s,\textsuperscript{824} in the erection of the Jewish colonies Kinneret and Degania.

\textsuperscript{820} Carmel (1990), p. 200; see also Eisler (1993), p. 49, attributing the master plan for Mikveh to Theodor Sandel, quoting the Warte 39 from 1872, p. 154, and the Sandel Papers from the Schumacher Institute archive.
\textsuperscript{821} Eisler (1993), p. 49.
\textsuperscript{822} Raab (1988), describes an on-going relationship between the Jews of Petach-Tikvah and the Germans in Sarona; Shalev, (2002), describes romantic ties between Jewish girls and young German men. According to Shalev (personal communication November 17 2002) there were about 30 such couples, some eventually marrying, the Jewish women eventually deported with their German spouses to Australia.
\textsuperscript{823} Thalmann (1995), p. 76.
\textsuperscript{824} Shilony (1988), p. 61; Shilony (1999), pp. 139-149. Treidel was on friendly terms with the Templer Gottlob Bäuerle, a gifted engineer, architect and builder from Jerusalem; this is supported also by the Testimony of Sa’adia El-Azam as recorded by Shmuel Yisraeli 1980.
Templer builders were involved in the construction of the first houses in Degania, the Kinneret colony and perhaps the Treidel House in Kinneret. Joseph Wennagel, the master builder from Sarona, was the mason contracted by Treidel to build these houses. Treidel and Wennagel were old friends, and spent time in East Africa together surveying. Most of the materials for these projects were purchased from Dück in Haifa. Thalmann (1995) and Carmel (1990) detail a long list of ‘points of juncture’ between Jews and Templers.

In planning and design, Templers and Jews also interacted, the Jews benefiting from Templers’ experience in the years preceding Jewish settlement. Gottlieb Schumacher designed the winery of Rishon Lezion (1889). Theodor Sandel and Ernst Voigt surveyed and planned the Jewish colonies of Petach Tikvah and Hadera; Sandel also designed the winery in Mikveh; Templer builders (the Beilharz’s) were involved in construction in Zichron Ya’acov, Rishon Lezion, Shfeyah and Bat Shlomo.

All these examples reflect direct affiliation; an on-going relationship, in terms of material culture exchanges between the two groups, leading to a degree of mutual influence, exchanges based on common interests, and beneficial to both sides. It was a relationship that knew ups and downs, but for as long as it

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lasted, it was unquestionably the Jews who benefited from the German know-
how in building construction and planning experience.

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Agglomerated Versus Designed Layout Settlement design

Many Israeli architects including Berwald,829 and, in recent years, Kroyanker, Mansfeld, and Safdie have sensed the architectural value of the natural beauty of the Arab village, and its connection to its environment, and tried to echo it; Mansfeld’s design of the Israel Museum in Jerusalem is one outstanding example.

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829 Berwald (1926), p. 2.
natural landscape, [...] allow for gradual expansion [...]. The design recall of the broken and stepped form, typical of the traditional Arab village."\(^{830}\) Levine (1980) regards the project as a dual quality object: on one hand, use of sawed stone enhancing the whitewashed Mediterranean village appearance, and on the other, resembling a project of Van de Rohe from 1923, one of the leaders of the Bauhaus School, and a teacher of Mansfeld’s partner, Weinreube, also a graduate of the Bauhaus: “Even in such a building which appears to be a par excellence expression of Israeli architecture, there are roots in other places.”\(^{831}\)

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Photo 395: Habitat, Montreal, designed by Moshe Safdie, 1960s.

Source: images database APASE. A traditional Arab village imagery in Canada. The industrialized prefab units create a sense of cohesiveness, much like the sense of sameness of the Arab village of the Middle East. The clustering of small units and the links among them is the main design attribute.

Ben-Artzi also describes a similar layout in Württemberg, called the Haufendorf, in which houses are laid out in an irregular pattern along defined roads. The evolvement of such patterns was rooted in the process of the breakdown of family assets to smaller units as families grew, and the need to create density for purposes of security. The concentration of houses along the streets also precluded spreading-out to the fields, thus actually saving agricultural land.

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\(^{830}\) Kroyanker (1966a), p. 214.
\(^{831}\) Levine (1980b), p. 204.
from being wasted by other uses.832 This form of settlement, therefore, was not new to the Templers when they arrived in Palestine. The most common form of settlement in Württemberg, it had evolved in Palestine over the years for much the same reasons.833 However, the Templers’ response to the irregularity and agglomerated layouts of Arab villages was not a Haufendorf, but rather an approach unheard of in the Palestine of the mid-19th Century: clear geometry and generously spaced-out layouts, on the settlement level, and sizable multi-storey houses with simple and clear designs on the individual structure level. All settlements (except for Jaffa which was purchased en bloc from the U.S. settlers) were pre-designed by competent Templer architects before the buildings were erected. This was a totally different and new approach: a settlement starting from scratch, following a community decision, and implemented in a relatively short time-span. This was in sharp contrast to the slow formation of Arab villages, which might span long periods, sometimes hundreds of years, without much regard to community interests (see discussion p. 118 above). In the Templers’ communities, the family lot did not break down into smaller units as in Germany: instead the Templers initiated new settlements for the second and third generations.

Beit-Shean: German and Jewish Settlement, Possible Influences

Goldenberg (1965) writes about the encounter of Jewish architects and settlers with the Wieland House:

[...] A certain German, who bought a track of land in Saffa, built a two-story house [...] The roof looked like a huge tropical hat, shading the entire building. We have brought in our architects, [no names] who regard this as a solution for buildings in a hot climate… [My translation].

One of these architects was Richard Kauffmann, a German Jewish architect. Other Jewish architects, many of them newcomers from Germany, were open to new ideas and styles, alert to the different conditions, climactic and otherwise, in various locations, in line with the attitude of young architects in the years preceding the ‘International Style’ which gained ground in Palestine and Europe in the late 1920s and early 1930s. Kauffmann, a gifted architect, was invited by the Jewish ‘national settlement institutions’ to undertake design and layout planning. He was to become responsible for hundreds of house designs and settlements layouts throughout Palestine. Among others, he visited the German settlers in Beit-Shean and studied their architectural solutions. A report dated October 19th, 1939, describes a visit there by Weitz, Stern, and Kauffmann, “… so that Kauffmann may collect impressions…” [My translation].

Other Jewish architects, commissioned by the ‘settlement institutions’ were

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836 ‘From the Secretariat’ in: Sde Eliyahu, 40 Years, p. 35.
intensively engaged in an effort to understand the building traditions in Palestine and apply the experience gathered for the benefit of new Jewish settlements. The visit to Beisan was just one of many visits to Arab communities, the architects recording, measuring and analyzing what they saw and heard. The publications of Aloyal (1944), Pinkerfeld (1943) and others, must be regarded as part of this policy.

_The lessons of the Beisan Venture_: Various factors combined to produce a specific architecture in the Beit-Shean Valley:

1. The experience of the Germans in the Beit-Shean Valley, prior to the Jewish settlement.

2. The fact that Rechter, Kauffmann and others were exposed to this experience and able to learn from it.

3. The open-mindedness of the commissioning bodies.

4. The ability of Jewish architects to apply what was learned through the emerging building technologies in the Palestine of the mid-1920s.

5. The sense of urgency prevailing during these years to acquire land and establish Jewish communities, which accelerated the Jewish settlement process and thus the efforts in planning and construction.

6. The increasing availability of new building technologies and materials, especially concrete, whose main ingredient cement, was, by the mid-1920s, already being produced in Haifa.
7. The inflow of people, who knew how to apply these technologies, such as Arpad Gutt, a gifted structural engineer, educated in Hungary, bringing with him professional know-how of reinforced concrete and its applications when he emigrated to Palestine in 1921 (a year after Kauffmann).837

In the photos above, the houses are one storey only, but the roofs extend about 3 m’ (9.8 ft.) in each direction. There is no usable space between the roof and the ceiling, unlike the Wieland house. Evident in these photographs is the fact that the walls are shaded. There are small openings in the long walls under the windows, on both sides, to allow for cross-ventilation, implying that the walls were not thick enough for thermal insulation. Although not documented, a possible influence of Kauffmann’s work on Rechter is suggested by Shechori (1987).838

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837 Gutt was not the first to introduce reinforced concrete. He was preceded by Daniel Lichtenstein and Alex Berwald (see discussion p. 353 above), who, by 1913, already built with concrete. Gutt must be credited for the application of systematic, engineered, and methodological approach to reinforced concrete technology. See Feurstein, (No Date), pp. 28-29.

Improved versions of ‘climactically responsive’ houses appeared in Sde Eliyahu in the late 1940s, becoming very popular in the region. In fact, the improved version came closer to the original ‘Red House’ than the first buildings, because they maintained the principle of an upper roof separated from the ceiling of the rooms, allowing air flow above the ceiling and the release of warm air trapped under the upper roof. The lower roof still provided shadow on the walls, which now were made of concrete blocks. The same design is found at Degania, Nir David, and Kfar Ruppin, all located in the same region and subject to the same hot summer.

Photo 398 and Photo 399: (left), Shikun Vatikim, Sde Eliyahu; (right), annex, Degania School.

Left: Shikun Vatikim (Veterans Housing), Sde Eliyahu, late 1940s. Source: Sde Eliyahu Archive. Members of Sde Eliyahu insist that the idea for this design came from the ‘Red House’. Right: Old annex to the Degania school building (by Kauffmann?). Source: detail, photo by Zoltan Kluger, 1937, National Photo Collection.

The use of reddish clay (or concrete) tile roofs was not the best thermal solution; it was, perhaps, an attempt to lend rural character to the settlements, as was seen in the German and Jewish colonies, but the settlers were prepared to pay the price in comfort. The reason for adopting the clay tile roof, was, in my assessment, that it was simple, fast, dry type of construction, and the architectural character of tiled roofs was a syntax that the settlers could, and wanted to, identify with.
Kauffmann and his other contemporaries therefore, were not operating in vacuum. Along with Kauffmann were young architects educated in Europe, such as Rechter, Krakower, Kucinsky, Berlin, and Ratner. Levine (1984) regarded Kauffmann’s work in the Beit-Shean Valley and the Syrian-African Break, as a breakthrough.839

Other architects used the same syntax in their architecture. Awerbuch and Rau, for example, were also modernists who saw the design opportunities of reinforced concrete, and incorporated the same ‘dictionary of forms’ in their work.840

The Red Clay Tiles: New Colonies, New Look

The application of this technology for domestic houses as a policy, and as an alternative to flat and domed roofs must be credited to the Templers. The ‘Marseilles’ (or ‘Ludowici’) type clay tiles imported by Breisch from Jaffa, which made and left a permanent mark on the Israel’s built landscape.841

Figure 98: Haifa Templer Colony, detail from a drawing by J. Schumacher 1877.
Source: Ben-Artzi (1996), near page 64. Most houses have clay tile roof, the flat roofs were later converted to the same type.842

841 Yinnon (2001), pp. 156-157; Eisler (1993), p. 49. Eisler quotes the Warte issues 14 (April 2nd 1874), and 52 (December 30th 1875).
The Templers saw these tiles in westerners’ structures in Jerusalem (see above, p 134), and understood that this simple technology was a good alternative to leaking flat roofs which provided a good thermal insulation, but were a constant maintenance problem. The clay tiles roofs needed little maintenance, created a good waterproofing system, and were familiar from Germany.

The most common roofing system in Württemberg was (and still is) these tiles. Visiting the region in the summer of 2002, I spotted at least ten different types of clay tiles, the predominant type being the ‘fishscale’, (See photos of similar tiles in Zoar, Ohio, p. 388 above).

![Photo 400 and Photo 401: Fishscale clay tiles, in Reichenbach and Muhlhausen, 2002.](Image)

Photos: August 2002. Observed to be the most common type clay tile in the villages explored in 2002, these tiles require a higher pitch than interlocking tiles. The round end helps avoid chipping. Perhaps this is why the Palestine Templers did not use it in the Palestine colonies, preferring the ‘French’ interlocking tiles.

*The clay tiles as an architectural expression: What started out as a maintenance consideration by the Templers, later became a symbol and an*
expression of a ‘Garden Community’ or ‘Garden City’ in the eyes of other builders of other settlements. The first houses in Tel Aviv neighborhoods also utilized this technology, since Tel Aviv was perceived as a ‘Garden City’ by its founders; the same was true for the houses built in the first neighborhoods in Jerusalem outside the walls where low-pitch for roofs was also a style characteristic. In contemporary Israel, most newly built communities and older ones expanded in ‘unsaturated construction’ utilize the clay tile roof technology not because it is faster or better as waterproofing but because of the imagery: the positioning of the built neighborhood as a suburban, out-in-the-country, quality-of-life index. From a practical point of view, many Israeli architects oppose the ‘red-roof convention’: these roofs absorb and radiate excessive heat, allowing dust and insects to penetrate roof space. In general, since it hardly snows in Israel, pitched roofs are not a basic requirement.

Israeli Arab communities have also adopted, over the last fifty years, the ‘red-roof convention’, probably to be in the same positioning. Red roofs were present in urban Arab neighborhoods for many years, but the diffusion into rural communities is only about fifty years old.

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843 Ben-Artzi (1988b), p. 148; the image of “Modern European” settlements, as perceived by the settlers. Ruppin in his diary writes about joining with Prof. Patrick Geddes, the well-known city planner from Scotland, in planning the lands of the Carmel in Haifa as a Garden City; Geddes was the author of the Tel Aviv master plan as a Garden City (Bein (1971), p. 187.)
Photo 402 and Photo 403: Clay tile roofs, Kafr-Qaria and Rosh-Ha’ayin.
Photos: February 2002 and April 2000. In Kafr-Quaria a mix of flat and clay tiled roofs, since the village was built over a longer period of time than the Rosh-Ha’ayin neighborhood, built in a short time span. The clay tiles became a common architectural vocabulary, both in the Jewish and Arab Sectors, mainly because of the imagery of a European country house, and the ease of construction.

In recent years, one can see in Israel the romanticism of local architects, resorting to visuals introduced by the Templers. For instance, a form imported from Württemberg, adopted by Jewish architects (1990s), in the Karkur project to produce a ‘German’ visual, in the sense of providing a ‘European touch’ and quality to the project. In Karkur, 2000, a whole neighborhood was built with this visual.

Photo 404 and Photo 405: Hip on Gable roofs, Karkur, 2000.
Photos: April 2000. Contemporary houses with hip-on-gable clay tiled roofs, of the same ‘Marseilles’ type used by the Templers.
The Prefabricated Concrete Elements Introduced by the Templers

The use of prefab concrete elements intensified and enhanced the Templer style, allowing for accurate, quality-controlled affordable, mass-produced, industrialized elements, and was soon imitated by Jewish manufacturers.\textsuperscript{844}

In Arab houses in Haifa there was the same articulation of windows with moldings. The proportions of the openings in these houses are also 1:2, in the order of magnitude of 80x160 cm. (31.5x63 in.).\textsuperscript{845} Houses in the Jewish colony (later town of) \textit{Petach Tikvah} also used frame moldings, as documented by Ben-Artzi (1988b) and Avitsur (1980).

\textbf{Photo 406: Molding frames in openings, a house in Petach Tikvah.}

\textbf{Photo 407: Zerach Brandt House, Petach Tikvah.}
Source: Avitsur (1980) p. 80; in the same settlement, showing the same treatment of windows.

\textsuperscript{844} Alexandrovitz (2001), p. 6.
\textsuperscript{845} Fuchs (1987), p. 42.
In the first houses in Tel Aviv, the Chelouche brothers marketed products imitating the products of Wieland and Beilharz.

Templiers’ architecture influenced the design of the Chelouche ‘Twins’ houses in Tel Aviv (1914, images above). Not only the elevated entrance (perhaps a possible influence,) but also the pattern of concrete ‘stone’ used for the fence, are identical with the pattern in the building blocks elements in the Wieland Jaffa factory, not far from the Chelouche plant, and the Sarona Community House (1911) in the heart of the Colony. The Wielands supplied all the prefab components for that structure.

New Materials and Technologies Dressed in Classical Appearance: New materials and building technologies quickly found their way to Templer architecture. The Wielands and the Beilharz’s manufactured prefab concrete

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848 Lämmle (1911), p. 369.
elements that emulated stone, and other classical elements like columns, column capitals, pedestals and quoins.

The same phenomenon was observed in the German Colonies of Amana, Iowa, of using concrete blocks emulating stone (See photos p. 238 above); in the very first concrete house in the U.S. (1871), the designer, Robert Mook, making the exterior walls resemble stone masonry in order to create a ‘socially acceptable’ appearance. Wagner in Jaffa manufactured building hardware and structural elements from iron, sometimes ornamented beyond their functional purpose. (See photos p. 241 above). Seemingly, it was a statement of identity: the Templers had come to an undeveloped country bringing a message of progress, new technology and ideas, and a new spirit with them; perhaps they also wanted their architectural expressions to convey a certain cultural heritage, represented by the neo-classical forms; and also for themselves, following Hoffmann’s ideas of a new society, the meticulous settlement and house design were a part of forming a new society.

The use of neo-classical designs with modern materials was a synthesis and an expression of two separate forces in the Templer culture: the German-European cultural identity on one hand and, on the other hand, the tendency to create a new image of advancement and progress with application of the new materials and technologies.

Concrete Prefab Elements: Long Range Influence

Industrialized prefab concrete elements were a major visual in the architecture of the 1960s in Israel. It started with the Beilharz’s and the Wielands, and soon adopted by Jewish builders. The 1960s were, in the short history of Jewish construction tradition, a peak in the use concrete and concrete elements for architectural expression. This was also the time of the ‘neo-constructivism’ architectural approach, in which the envelope walls of a structure became a platform of architectural expression. Some Tel Aviv buildings in from that period reflect this attitude and were recorded in the Weissenstein photographs collection.

Photo 411, Photo 412 and Photo 413: Tel Aviv, 1960s, prefab concrete elements.
Source: Weissenstein Photo Collection; From left: apartment houses designed by Hormann; the Supersol building designed by Zolotov; and the new Tel Aviv city hall designed by Cohen.

Modern Houses Resembling Templer Houses

In Benei Atarot (formerly Wilhelma), in the new part of the settlement, some builders have erected houses, reminiscent of Templer houses. I spotted at least three such specimens, obviously Templer-look-alike houses, built in the 1990s.

![Photo 414, Photo 415 and Photo 416: New houses in Benei-Atarot, formerly Wilhelma.](image1)

Photos: March 2001. One hundred years after the establishment of Wilhelma, second and third generations of Jewish settlers of Benei Atarot build ‘Templer-look-alike’ houses. From left: Cohens’ house, Feinsteins’ house, and Geffner-Harris’ house, all designs reflecting on what they felt to be representative characteristics. The fact that some of the young people of the settlement resorted to this syntax says a lot about the architectural values the Templers have conferred in the ‘collective memory’ of the new generation of Benei Atarot.

The same phenomenon has been repeated in Waldheim, now known as Alonei Aba where second-generation residents built Templer-like houses.

![Photo 417: Alonei Aba, modern house resembling a Templer house.](image2)

Photo: March 2003. The house contains many traditional Templer architectural visuals: roof, chimney, symmetry, and prefab elements. It was built by a second generation Alonei Aba residents, for the same reasons the younger generations in Benei Atarot built these houses: the house design as representing the first settlers, the continuity of settlement by the next generations, and the acceptance of the Templer aesthetics.

* This was brought to my attention by Prof. Uri Yinon, for which my thanks.

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This phenomenon must be compared to the *era of heritage-consciousness*, as observed and recorded by Andelson (1984) in the Amana settlements in Iowa, discussed in the next section. The many similarities, possibly point to the value of historical architecture, its meanings and its role in the lives of the community. Younger generations, detached from the original settlers, resort to the old architecture even though current building technologies offer a high degree of choice and low criticality (see discussion p. 15 above). Gilad Duvshani, an Israeli architect, elaborated on the value of the “visual imagery system” originating in historical architecture as a generator of contemporary architecture.852

Chapter 7:  
Summary Comments and Conclusions

The Templers’ Architecture and Change

General preview

Architecture reflects, to a large extent, the value system and cultural aspects of the society which produces it. Examined vertically, it also represents the dynamics of change - social, cultural, religious and economic - in that society’s values. In particular that is evident in closed societies such as the Temple Society. An extensive study of the issue of change in a closed society was provided in the Andelson study (1984), in which he distinguished between three phases in the changing architecture of the Amana colonies in Iowa, formed by a German group, many of its members from Württemberg, years before (1842, Buffalo New York and later 1855, in Amana Iowa) the Templers started their colonies in Palestine.853

1. During the communal era, architecture and village layout served communal ends. Nearly uniform, multi-apartment dwellings housed members comfortably and unostentatiously. Church architecture reflected the piety of the ‘Inspirationist’ creed.

2. After 1932, the *modernizing era*, members made significant modifications to their homes, both within and without, and new homes and businesses were built in contemporary styles.

3. From the mid-1960s and on, the situation has been complicated by tourism. This third period, the *era of heritage-consciousness*, has produced efforts to preserve, restore and simulate old architectural styles. The result is architecture of ambiguous cultural meaning.

It is possible to observe, in the case of the Amana settlements, that change in the built environment is reflective of social (and other) events that this society has experienced. Rapoport (1969) sharpened this observation by differentiating between *constancy and change*. When a given society’s lifestyle is changed, the forms-vocabulary and syntax becomes meaningless; however, some forms retain validity, regardless of change when the society has ceased to function as such.\(^{854}\) Three factors influence change and constancy: our biological nature, the way we perceive the built form, and our behavior. Our biological nature seems to enhance constancy while perception and human behavior are changeable. Salvadori (1990) expresses the very same ideas.\(^{855}\)

If we can forge a link between the changes experienced by the Templiers and the expression of these in the built form, we can achieve a deeper understanding of that groups’ social and cultural history; we may reverse the order, and observe the changes in the built form, and try to deduce what they

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represent in terms of cultural change, and cross this information with written sources. The final outcome is a wider knowledge of Temple Society history, the connection between its architecture and its cultural development.

**The Process of Change**

Carmel (1990) presents a profound and critical analysis of the different aspects of the change that the Templers experienced, which resulted in a totally different society, based on new values and interests remote from those of the group which started the Temple Society. A group that started out as religiously-motivated, changed its priorities after the Settlement Period to favor day-to-day challenges; ideology was overridden by practicality, and the need to maintain and secure their existence. The spiritual element in their lives declined sharply, a very similar process which the Amanites also experienced, as described by Andelson (1984), p. 457 above.

It is observable that the architecture of the ‘first wave’ of Templer houses is easily distinguishable in character, and has much to say about the very nature of the Temple Society, at the beginning of its venture in Eretz-Israel. They came to the Holy land with a definite idea, a common goal, a community spirit and strong and decisive leadership. The consistent character of their houses at this phase reflected their social consistency, and the religious belief which united them. With the weakening of the leadership, the rise of conflicts inside the Temple Society, the change in economic climate and the occupations structure, their architecture

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856 Carmel (1990), pp. 46-55.
also changed: there was a shift to the International Style, to a more open and fashionable architectural character, more individualistic and more expressive of affluence.

Changes Inside the Temple Society

Hoffmann died in 1885; the local Templer leaders who took over his role lacked the spiritual intensity needed to maintain or develop his theory; the declared objective of the Temple Society, twenty years after the landing in Haifa was now “Betterment of [life conditions of] the country”, an objective far more attainable than the initial “Settling God’s People in God’s Land”.858 With the growth of the Temple Society enterprise in Palestine, the financial pressures on its leadership increased, but the willingness of the settlers to take part in the financial effort decreased. Templer leadership was unable to raise the means to buy new land, thus strengthening the feeling of individual settlers that communal support had gone, or, at least, weakened, and that each settler had to act on his own. The individuality in house design was there from the outset,859 but increased and became more differential as house designs were supported by better means, new building technologies, and more modern design approaches. With improvement of their economic situation, the Templers tended to increase the size of their families, creating a need for larger houses or additions to existing houses.860 Agriculture, which was thought, in the beginning, to be the

859 Ben-Artzi (1988b), p. 84.
leading economical activity, became secondary, influencing the colonies’ layouts,\textsuperscript{861} and the house designs. It has been observed that there is a correlation between agricultural activity and the layout of the settlement and the house design;\textsuperscript{862} in the same context, urbanization processes also exert a profound influence on house design. In Haifa, for example, the German Colony was transformed from rural to an urban community as a part of the urbanization process of Haifa.\textsuperscript{863} In this process, many Templers made the change to urban occupations.\textsuperscript{864}

The visit of the Emperor Wilhelm II, in 1898, and the resultant expectations of the German settlers, created an atmosphere of German nationality, which lessened loyalty to Hoffman’s ideals; a 180 degrees change from the movement’s first days. The identifying of many of the settlers with Bauhaus and International Style, led by German architects and architectural theorists in the 1920s and 1930s, must be considered in this context.

\textit{Changes Around and Outside of the Temple Society}

As a political entity, Germany was not initially supportive of the Templers in Palestine; it was anxious to avoid conflict with the Ottoman Empire. As a result, the geographic affiliation of the young generation of Templers in Palestine weakened, some even emigrating to East Africa in search of a higher standard of living and support of the Germany, which regarded East Africa colonies as a

\textsuperscript{862} Loewe (1938), p. 2.
\textsuperscript{864} Thalmann (1995), p. 70.
national interest; Carmel (1990) summarizes the dramatic change: “[…] out of the values preached by Hoffmann nothing was left […] the Templers’ settlement had, initially, religious drives, but the settlement venture in Eretz-Israel very quickly became secular in character”.

There were economic and technological changes, affecting the Templers and the country in general. The Templers as a society became more secular, but there was more to it than this change in character. By the turn of the century, Eretz-Israel experienced rapid and basic change, in almost every aspect: politically, economically, demographically and socially. Massive Jewish immigration to Eretz-Israel had created totally new market conditions. Land prices increased rapidly, especially in the vicinity of German colonies, which were extremely desirable locations; many Germans sold land to Jews and Arabs who wanted to settle near the colonies, on one hand creating an ‘architectural competition’, and availability of money in German hands, on the other, allowing the Germans to construct larger, more splendid more modern houses. The relations between the Germans and the Arabs of Eretz-Israel were also problematic: at times, hostility reached the point of violence, but not at the expense of economical mutuality, in which each side gaining a great deal, and creating within the Arab communities levels of income previously unknown to them, which made possible for the Arabs to build new houses with red clay tiled roofs. The competition with the Jews and the hostility of the Arabs combined,

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865 Carmel (1990), p. 51.
866 Carmel (1990), p. 197, quotes Imberger, who called the Arab village of Salameh ‘Neusarona’, for the red roofs stone houses the Arabs built there to replace the old adobe huts; Scheid (1983), p. 29, also observes that the Jaffa Arabs copied the clay tiles roof from Jewish settlements.
created a sense of isolation in the Germans and they lent force to maintain their uniqueness and technological supremacy, including in building construction.

Templer Architecture and Change: Time-Axis and Examples

Considering the three periods of the Templers in Palestine, as delineated by Carmel (1990), and widely accepted by other scholars, it is possible to apply the same Andelson (1984) logic and compare the architecture to corresponding time periods. The three periods of the Templers’ Palestine settlement are, according to Carmel: 1. The Settlement Period, (1868-1875), 2. The Consolidation Period (1876-1898), and 3. The Expansion Period (1899-1914). Carmel's breakdown to periods is historio-political; with regard to architecture, however, one more period must be added: the time between 1920-1948, the British Mandate in Palestine, which was a natural continuation of the Expansion Period, once the Templers returned to their colonies from detention, and plunged into the economic turmoil generated by the British Mandate Period, until 1939 when many Templers were detained by the British for the second time. The end of the long Ottoman Era and the start of the relatively brief British control of Palestine (from 1917, the Mandate started 1922) was a turning point, not only politically but also in every other conceivable aspect. The Germans and the Jews welcomed the change enthusiastically: it meant ‘westernizing’ that part of the world, under the rule of a great western power acting according to normative administrative practices, caring for the welfare of the population, and introducing, at least architecturally, new construction momentum, standards, government investments in construction and infrastructures; it were actually the British, who,
in the final analysis, generated that “betterment of the country”, which the Germans intended. A study of the Ruff archive,\textsuperscript{867} shows the very systematic and organized process of building permit procedures, practiced in the Haifa Municipality, which allowed Ruff and his partner Weller to obtain dozens of building permits for the Germans in the Haifa colony (as well as for the Arab residents of Haifa), thereby facilitating rapid growth of the Colony and of the city in general. The British regarded the expansion and growth of the cities in Palestine critically, applying legal and engineering procedures and practices. This is supported by the description given by Kroyanker (1987a). Kroyanker describes a reality of anarchy within the Ottoman administration pertaining to building permits.\textsuperscript{868} Bribery, bureaucratic delays, mismanagement, poor supervision, and the like, were part and parcel of the Ottoman Administration. It not only discouraged new construction, but many builders who obtained building permits, built modestly so as not to create a highly taxable structure.\textsuperscript{869}

\textsuperscript{867} Lately catalogued and maintained by the Schumacher Institute in Haifa and made accessible by Prof. Carmel and Dr. Perry for which I am thankful. This study is one of the first ever to access the Schumacher Institute Collections, once the vast material was catalogued and prepared for researchers.

\textsuperscript{868} Kroyanker (1987a), p. 83.

\textsuperscript{869} Landau (1979), p. 15.
Figure 99: Sarona, drawing by Harper, 1880s.

Source: Geikie (1891), p. 72. Few drawings portray better the first period of Templer settlement in Palestine. Harper succeeded in depicting the character of the time and place. The drawing describes Sarona as a rural settlement, simple house design, modest scale, and soft limestone masonry construction. The same impression is given also by the painting of Bauernfeind,870 (see Section on Sarona p. 245 above), who also described the colony as an isolated rural village.

Photo 418: Sarona, Albrecht Aberle House, 1930s.

Photo 419: Sarona, Neef House, 1930s.

Source: The Albert Blaich Family Archive, Australia. These were among the last houses ever to be built in Eretz-Israel by Templers. The Aberle House was designed and built by the Wennagels. They reflect wealth and modernism. The design is unsymmetrical and stresses the relationships among the volumes, each with a different size and height. The construction technology is reinforced concrete, and the expression of the columns on the exterior enhances that engineering statement. In the Neef house the columns were even colored differently, to represent concrete ‘post and beam’ technology. In the Aberle house this is taken further, showing concrete posts and beams separately on the top level. Accessories (glass blocks and roller shutters) were also used, as part of the new design approach, by Jewish architects active in Palestine in those years. These designs are far removed from the houses depicted by Harper in Sarona of the late 1880s, (see p. 465 above).

870 Carmel (1999), near p. 96.
Figure 100: Sarona, Haering House, first floor plan.

Source: Documentation Dossier, A. Ziv Architects. The plan measures 1335 x 1658 cm (43.8’ x 54.4’) overall dimensions. The rooms and access are not symmetrical, as in the first houses, each room has different size, even the windows are not standardized and sized for a specific purpose. There are interior and exterior staircases, suggesting an intention of using the floor as an independent unit. Three balconies, oriented to the north, east and west, indicate an appreciation of the Mediterranean weather and create the option for outdoor use. The use of balconies was also noted by Holmes in the American Colony in Jaffa, as a modification the Americans incorporated in the imported wooden prefab houses.871

Photo 420: Hotel ‘Carmel’, Haifa, German Colony, built 1880s.
Source: Y. Amir Postcards Collection. The structure was carefully designed, with at least five levels including a basement. This represents the consolidation period. The different shade of the upper two floors suggests a later addition; a stone masonry bearing walls construction combined with imported dimensional timber, also reflective of the slow changing of the Haifa Colony into an urban settlement.

The recent ‘surfacing’ of the Weller photo collection, compiled by the Albert Blaich Family Archive in Australia, provides an opportunity to look at the changes that have affected Templers of Haifa. Weller, an architect, was the partner of Karl Ruff, also an architect. Both were Templers from the Haifa Colony. They opened an architectural firm in Haifa, on 100 Jaffa Road, providing architectural services to the community, and to Arab residents of Haifa. The Ruff Archive was saved in its entirety by Prof. Alex Carmel of the Schumacher Institute in Haifa.
Photo 421: Weller at the door of his office, 100 Jaffa Road, Haifa, 1938.

Source: Albert Blaich Family Archive, Australia. The image on the right is an enlargement of the left image. The Mercedes appears in all Weller photos. The letters on the glass front read “K. Ruff * E. Weller, Architecten”. The building on 100 Jaffa Road was still there in excellent condition on October 2002. All the shops had a roll-up screen for shading, as this side faces south. Weller is dressed in a suit and tie; he poses as a well-dressed westerner, with a late-model expensive car, next to a prestigious business, an image far removed from the initial farming and artisan community that started the Haifa Colony. The typeface of the sign is typical of Bauhaus graphics. The house is completely urban, built with reinforced concrete technology and clad with limestone. These are not bearing walls; the structure is concrete beams and columns, the stone merely a finish. The division between the business on the ground floor and residence on the upper floor is typical of Haifa’s Jaffa Road, which became a major business axis.


Sources: The Albert Blaich Family Archive, Australia, and photo October 2002. This provides an example of the ‘Constancy and Change’ delineated by Rapoport (1969) (see p. 458 above): Weller himself felt comfortable with a more traditional design, and resorted to the more traditional format and roof design common in Palestinian central hall houses. His designs for others (see below) express a totally different attitude. The trees, which Weller planted, are cypresses, and evergreens for shade. In the old photo, on the lower right side of the roof, a radio antennae pole.
Wilhelma provides a good opportunity to make a latitudinal cross section of Templer architecture, even though it is one of the later settlements. Formed in 1902, more than thirty years after the first Haifa colony, it nonetheless provides a mix of building designs and technologies. There is less of the urban residential type, since Wilhelma was formed as a rural settlement, but all the other types are there, which makes Wilhelma a very useful window to the ‘Templer Style’, and the profound changes it underwent.

In general, Templer architecture can be considered a unique phenomenon for study: the Templer population was homogeneous socially, actually did not mix with other local populations, have appeared in Palestine in the first place for a specific religious purpose, and represents a limited time-segment in Palestine’s
history, i.e. 1868-1948. However, some reservations to this statement must be made: Firstly, Wilhelma, like other colonies, witnessed a change in building technologies in Palestine, their availability and affordability. Secondly, the same is true for changes in architectural design philosophies, as new architects and architectural ideas, emerging in Europe, began to flow into Palestine, beginning with the mid-1920s. The Templers could not ignore the new reality, the new design ideas and their affordability. Thirdly, almost all the new architects who appeared in Palestine in the mid-1920s, and the new architectural approach, were associated with Germany; the religious feelings of the younger Templers was now replaced by a sense of national pride: they were, above all, Germans, and Germany was becoming a world leader in architectural thought and theory. All this had a profound impact on Templer architecture, which expressed itself accordingly. These factors give us a chance to see, close-up, how architecture responds to changes, which is part of the discussion on Architectural Style.872

The Writing on the Wall, Above Entrances

The Templers used the openings in houses as message-conveying elements: date of construction, usually a Biblical verse, a token of their deep religious belief. In Württemberg, however, this was not common practice; one finds construction dates, family coat-of-arms, and sometimes even wall paintings with religious themes, but hardly Biblical texts. Religious messages were also

872 Andelson (1984); Ben-Artzi (1996), pp. 139-143, the dynamics and causatives of change in Templers architecture.
These indicators were not present in Wilhelma; by the time Wilhelma’s houses were built, second and third-generation Templers had become less religiously observant, and their houses accordingly reflect a much more practical, thrifty, down-to-earth attitude.

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Photo 427: Muhlhausen, biblical theme wall painting.
Photo 428: Baiersbronn, construction date and family coat-of-arms.
Photo 429: Neuweiler, construction date and (unidentified) symbol.
Photos: August 2002.

Photo 430: Text above entrance, house in Schönenberg.
Photos: August 2002. The house was relocated to the Hohenloher Freilandmuseum near Schwäbisch Hall. The text reads: “Built with [the help of] God by Johann Härterich [and] his wife Katherine Härterich 1887”. (Translated by M. Higgins). This is the only example I found in some villages I explored in Württemberg with some religious context coupled with names and dates.

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873 See Kroyanker (1985), p. 44.
They also felt less committed to those earlier architectural attributes, because their settlement was not related to any other built environment. Wilhelma was a stand-alone, isolated entity, not needing to compete architecturally, as in the case of Jerusalem, or even Haifa, where sophisticated structures were already emerging. Instead, we find in Wilhelma simple openings, most of them framed with prefab concrete elements, and prominent visual characteristic.

The Appearance of Apartment Houses in Haifa

In Haifa and elsewhere, the single-family Palestinian Central Hall House was subject to variations and transformations intended to transform it into an apartment house, thus losing its uniqueness and basic (Lebanese) character. This process is echoed in some of Ruff’s designs. The very fact that there was an attempt to retain some of the syntax in apartment houses reflects the intensity of the social convention, valuing the format and its aesthetics.  

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874 Rogers (1880), p. 142.
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Figure 101: Haifa Arab apartment House.
Source: drawing by Fuchs in Fuchs (1998), p. 100 fig. 22. The triple arcade does not represent the central hall, but the stairwell. On each side of this element, is a separate apartment, the Central Hall scheme is lost, but the visuals remained.

Figure 102: K. Ruff design for ‘Struve Co. Haifa’.
Source: Schumacher Institute Archive, file AGC07. A proposal for an apartment building on Struve’s premises, mid-1930s. Struve was probably considering real-estate values since Haifa was developing rapidly during the first years of the British Mandate. Each apartment has a central organization layout: a ‘hall’ (so designated in the plan), surrounded by rooms with access to balconies from every room (except one). The ‘hall’ is the largest room, and the scheme resembles the ‘Central Hall House’.

The Disappearance of Symmetry

The disappearance of symmetry from Templer architecture from the late 1920s and on reflects, in my observation, their gradual disengagement from the basic theological and social values which brought them to Palestine in the first place; the second generation of Templers changed its main objective from religious ideas to development of the agriculture and industry of Palestine. This new objective allowed them to adhere to a goal which was both attainable and let them prosper.

The great vision of the ‘Friends of Jerusalem’ from 1853 did not materialize. The hundreds of Templers who finally settled in the country did not succeeded in
passing Hoffmann’s theory on, even to their own sons. The motives for Templer settlement were religious, but the settlement venture quickly became secular in principle.876 There was now a different set of design rules and design discipline. Andelson (1984) points to a very similar process in the Amana community, where the change in life style and belief dictated a change from symmetry in plan and envelop-walls: “[…] The new architecture clearly proclaims: “here lives an individual.”877

Figure 103: Herrmann house, Haifa, main elevation.
Figure 104: Kraiss House, Haifa, main elevation.
Figure 105: Lange House, Haifa, main elevation.

Source: Gräf & Mayer (1999) Students Survey (no pages indicated). The entrance is centered, the long side of the building is parallel to the street, and floors are visually separated with a projecting belt course.

Figure 106: Gottlieb Ruff house, Haifa, South elevation, 1931.
Source: Schumacher Institute Archive, file GCA07a.

In the image above, Karl Ruff design for Gottlieb Ruff house. The drawing is from March 1931. Although far removed from the traditional Templer house, some visuals persist: symmetry in the center field (only), projecting belt molding, wooden shutters, and modest size.

The Adoption of Painted Ornaments in the 1900s

Painted wall ornaments were common in Württemberg, but not part of the first houses the Templers built. These were painted in second and third coats, and are dated by preservationists to the 1900s.\textsuperscript{878} The change of attitude in accepting this norm can be attributed to the economic improvement in the settlers’ way of life.

\textsuperscript{878} Farkash (2002), pp. 16-19.
In the beginning of the 20th Century, Arab villagers also painted similar stencil patterns along upper portions of walls, as observed by Kroyanker (1985).\(^{879}\)

_The Templers and the International Style_

_The Big Change_: the very enthusiastic response of Templers to the ‘International Style’ and the speed which it was assimilated into the Templer culture must be viewed in the same context of change. The ‘International Style’ offered an ideal compromise: on one hand it was the herald of modernism, an opportunity to rejuvenate and acquire a new image and identify with the rest of modernity. On the other, it was an unpretentious approach to architecture, a sensible, simple, rational design methodology and philosophy, which despised ornaments and unnecessary building elements. A ‘no-nonsense’ architecture, making use of new and emerging building technologies. These are Templer values. The _Bauhaus_ and other such schools, in Germany and Western Europe, were all part of the ‘International Style’, and the gifted architects whose voices

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\(^{879}\) Kroyanker (1985), P. 408.
were beginning to be heard, were even arriving in Palestine: Kauffmann, Mendelsohn, Krakower, and others.\textsuperscript{880}

![Figure 107: Gottlieb Ruff House, first floor plan.](image)

Source: Schumacher Institute Archive, file AGC07a. The plan, not symmetrical, is divided vertically into three fields, each about 4 meters (13.2 ft.) wide, which make small, manageable spans for concrete technology. Each room has a different label: kitchen, sleeping, hall, dressing. The main room is labeled ‘Room’. Even secondary spaces are differently labeled: corridor, veranda (closed and open). This compartmentalization is typical in custom-design, in contrast to the same-label nomenclature in older plans. The cantilevered projection in the center room is possible only with reinforced concrete.

The \textit{Bauhaus} was German, but its message was universal, and its principles could be applied anywhere. The Templers, so it seems, liked this quality; they could become associated with Germany and its achievements, and still be like the rest of the informed Palestine populace already plunged into the new style.

\textsuperscript{880} See for example, Levine (1980a); Levine (1980b); Metzger-Smock, (1994); Uri (1967); Elhanani, (1998); Hashimshoni (1963).
In Tel Aviv, the same process of transition from the ‘traditional’ (loosely called Eclectic Style) architecture to the International Style is reflected in the chronology of the Jewish architect Yehuda Magidovitch.

Photo 436 and Photo 437: Tel Aviv, houses designed by Magidovitch, 1922 and 1933.

Source: Duvshani (1993), p. 128 and p. 299. Left: Berski House, 1922, right, Segalov House, 1933. Magidovitch made the transition from the romantic Eclectic Style to the International Style, as part of the general trend. The search for cultural identity and independent architectural expression yielded to ‘practicalism’, the new architectural syntax that was the message of the International Style. For an architect educated in the classical tradition, this was revolutionary. He (and his likes) became a part of the process of cultural change, feeding on it and at the same time enhancing it. The great U.S. architect Frank Lloyd Wright also made this transition; compare, for example, the Dana-Thomas House (1902) with the Kaufmann House (1935).

There is a similarity in the dynamics of this transition in the ‘Jewish’ architecture: in the 1920s and 1930s, the years of massive construction in Tel Aviv, architects tried to create a reality of a new cultural identity, a neo-classical appearance that would announce the creation of something new that reflected their European cultural values. The formation of a new society in a new location meant creation of a differential architecture. This, I believe, was the same motivation that the Templers had acted upon 50 years earlier. The International Style, however, when it took over in the 1930s, pushed aside the

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‘eclectic’ style, for the very same reasons: It was a message with which the Jewish population could easily identify with. Ashkenazy (1998) wrote about the Bauhaus ‘takeover’:

Practically, the simple lines of the Bauhaus structures lent themselves to the relatively unsophisticated and economical building techniques of the time. Philosophically, the unadorned Bauhaus style harmonized with the Zionist “no-nonsense no-frills” pioneering ethic, and was further propelled by the prevailing conformist attitudes.883

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*Change in Templer Architecture as Reflective of Change in its Society*

The domestic architecture of the Templers mirrored the changes they experienced as a society, discussed above. Similar regional changes had also profoundly effected their house design and construction. Each period is typified with its own architectural expression: in the first period, simple and purposeful; in the second period, additions to houses and new houses, implementing new technologies and materials, and even deeper changes in the third period, with the appearance of steel beams. The fourth period, that of the British Mandate, is when the Templers actually lost their architectural uniqueness and were assimilated into the ‘International Style’ movement headed by the new Jewish architects. Some elements of constancy remained, regardless of the great changes: simplicity of design, lack of ornamentation, high level of workmanship, practicality, and straightforward functionality. Some elements disappeared with

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time: symmetry in plan and elevation, traditional building materials, the Biblical texts; some elements with time joined the Templer architecture: new materials, technologies, painted wall decorations, and in some cases, use of color on exteriors.

The appearance of the International Style, its rapid acceptance and internalization by Templer builders, is perhaps the most prominent expression of societal change reflected by their architecture. They ceased to be leaders in the architectural arena in Palestine, resigning themselves to the new reality, in which they no more led in building technology and design; their houses, although built with the same dedication, talent and expertise as before, were no longer unique. They became a part of the general trend in the country. For them, handing over the lead was easy and comfortable: on one hand, the Bauhaus was German, representing their national identity; on the other hand, the International Style was, after all, international so it could not be associated exclusively with the local scenario and therefore could not be interpreted as yielding to local culture. Paradoxically, the Templers would have been proud of the ‘Jewish Bauhaus’, crediting it to German culture.

Adaptability in Templer Architecture

It has been observed earlier, that what developed in Eretz-Israel as the Templer architecture was, in many aspects, different from that which they knew in Germany.\footnote{Ben-Artzi (1996), p. 190.} This discussion, however, focuses on one particular aspect of
this phenomenon, namely its adaptability. German and other settlers elsewhere outside Germany have often demonstrated the ability to switch from traditionally-accepted ways of making architecture, adapt to a new reality, and resort to different solutions, sometimes by creating local solutions, or by acquiring external resources. This is to be seen in almost every aspect of the Templer architectural creation in Eretz-Israel: from settlement design to the details of house construction. This pattern was also similar in the U.S.: the ‘Inspirationists’ German settlers of Amana adapted quickly to the materials at hand in Iowa (1855). They used timber, clay, sandstone and limestone because these were what the Iowa Valley offered. In Zoar, Ohio, another German group, the ‘Separatists’, also immigrating from Württemberg (1817), acted the same way, by only using materials at hand in Tuscarawas County, Ohio. Like the Templers, the ‘Separatists’ bought from the locals those building technologies with which they were not acquainted.

The Templers’ adaptability may be broken down into a number of phases:

*The first Adaptability Phase: Use of whatever is locally available.* The Templers in Eretz-Israel started out with local materials and local building technology; using limestone for walls, and compacted earth for flat roofs. In all probability, they believed that this building tradition evolved from experience gained by the locals, and was therefore suitable for local conditions, though it was far removed from what they were accustomed to in Germany. They used the same building construction methods of bearing walls as did the Arabs, made

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projecting balconies in some buildings, an attribute rational in local weather conditions. In brief, this phase there was total acceptance of Eretz-Israel building construction reality.

*The Second Phase: If it’s not there, import it or make it.* They understood that there needed to be input of their own in this unsatisfying (for them) construction tradition so they began to import dimensional lumber for roofing, and French clay tiles; later to manufacture prefab concrete elements, including floor tiles, to be incorporated into traditional structures, resulting in an improved house design.

*The Third Phase: Assimilation* into the general trend of modernity. They adapted to the rapidly-evolving social and geopolitical reality of 20th Century Palestine; acknowledging that Jewish immigration was the predominant culture, economy and volume; that the Templer population was not going to grow significantly; and that they had lost their primacy in house design. The saying: ‘if you can’t beat them, join them’ was particularly apt for the Templers after World War I, and resulted in exceptionally well-designed International Style houses, especially in Sarona, which was closest to Tel Aviv, where thousands of modern houses were then going up.

*Architectural adaptability* as described above is defined as a number of attributes, developing from simply using available construction means, through to acquisition of means outside the existing system, on to acceptance of new construction and architectural realities. It may pertain to relatively unelaborated processes of solution finding, but also have socio-cultural ramifications, as
appears to have been the case in the third and last phase of the Templer architecture effort in Palestine. The multitude of faces and forms of this phenomenon reveal its importance in terms of the relationship between the Templers’ material culture and its environment, physical and cultural.

**House Design as an Expression of Individuality**

The Templer Colonies were built by individual settlers, each building his own house according to his own taste and means. In Haifa, for example, one finds simple and complex houses side by side, with expensive and inexpensive building materials, of differing sizes. The leadership of each colony undertook responsibility for settlement design, for allotting land for public and private use, for the location and design of public functions etc, but it stopped at the level of house design.

The Germans, and in some cases, the later on Jewish settlers, were not terribly concerned about the uniform appearance of the houses. Posener (1938) was unable to record any of a ‘typical’ house plan in the German Colonies, but in the Jewish settlement of Bat-Shlomo (1889), he observed several ‘types’ of houses, including “a German type built by a German builder.”

This was, so it seems, a conscious value decision; no point to coercing settlers to accept a uniform ‘typical’ design; anyhow it would have been out of character for the essentially democratic Temple Society. In contrast to the

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887 Ibid. Posener referred to the Beilharz brothers from Haifa; See also Sauer (1988), p. 94, where Sauer describes the construction of six residential buildings in Bat-Shlomo (Um e-Jemmal) by the Beilharz’.
Jewish colonies where, in many instances, the central Colonizing Bodies made these decisions for the settlers, thus ending up with a more uniform house design; that was more egalitarian and more economical. The Templer Colonies, on the other hand, were much more diverse and totally free of community discipline in this regard.

Photo 438 and Photo 439: Kinneret Colony, 1912.
Sources: National Photo Collection, and the Kinneret Archive. The street is lined with absolutely identical houses built by Beilharz from Haifa. In the left photo, the single house on the left is the Treidel House. In the right photo is the pharmacy. Exceptional in the row of houses is a single house with a flat roof, where the tenants insisted on ‘an Arab roof’ for climactic reasons. This was especially critical in this region, known for its hot summers. The same uniformity appears in the houses of Yesud Hamaala (see p. 386 above), and other Jewish settlements.

Photo 440: Kfar Tavor, 1912 (detail).
Source: photo by Leo Kahn, Kfar Tavor Archive, in: Cathedra 95, p. 98. Uniform house design as a policy of the ‘settlement body’, in this case the JCA (Jewish Colonization Association), which took over the Rothschild enterprises in Palestine in 1899.

888 S. Israeli, manager of Kinneret archive, personal communication, interview June 2002.
**Meanings:** This individuality was expressive not only of the Templers’ democratic spirit but also of the transformation that they underwent by immigrating to Palestine; freeing themselves from the old traditions of Württemberg - the dense agglomerated layouts of the German villages, the *Einhaus*, the Half-timbering etc. In Palestine, they created a new reality of personal freedom, of which the differential house design was an eloquent and meaningful expression.

**Templers’ Architecture, Original or Imported?**

“You want to stand alone against the whole world? There's no place for originality in architecture. Nobody can improve on the buildings of the past. One can only learn to copy them. We've tried to teach you the accepted historical styles. You refuse to learn. You won't consider anybody's judgment but your own. You insist on designing buildings that look like nothing ever built before. This school has no choice but to expel you. It's my duty as your dean to say you will never become an architect.” Ayn Rand, *Fountainhead*.

This discussion must start from the end, by observing the German Colonies as a complete entity. Posener (1938) remarks that the German Colonies possess “an external appearance more ‘authentic’ than the Jewish colonies” but at the same time notes that the ingredients of the architecture of German houses are, in fact, typically Mediterranean, not exclusive to the Templers’. His impression was the same regarding *Bat Shlomo*, the Jewish colony, designed and built by

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890 Posener (1938), p. 2.
Templers, which he describes as “a true village producing a sense of European appearance.”\textsuperscript{891} The German Colonies became a focus of interest, frequently visited by outsiders. They were a novelty in that Palestine, which was just awakening from hundreds of years of desolation. They represented a European touch, much in contrast with the old existing veteran settlements. But they were not the first to introduce (relatively) sophisticated construction technologies and materials. Other European institutions had been and built there before the Templers. The real significance was in the creation of new (and lasting) settlements; this must be credited to the Templers, as described above.

\textit{Is primacy to be considered originality?} As in many design disciplines, there can be little new in each and every development in architecture: a new Style does not inevitably mean an original design; new technologies and materials often host old design approaches and it is seldom that we see a structure that is a wholly new concept in design and design methodology. Most buildings are not even designed by architects (see above), and most of those that are, feed on what has been done before, with minor variations.

Therefore originality should be seen as something that does not start from scratch, but rather brings about a significant change relative to what was known and practiced before. In this sense, the Templer houses of the ‘first wave’ were original. It was a new experience for them as well as for the cultural landscape of Palestine. Those were the days of creating something from zero, in architectural terms, and also creating something from zero socially, spiritually and culturally.

\textsuperscript{891} Kauffmann (1938), p. 6.
The outcome of the architectural effort was pre-designed, spacious, multi-storey houses, with clear geometry, large glazed windows, basements, kitchens, dining rooms, bedrooms and family rooms. Such houses were seen in Europe and the northern Mediterranean and even in the German Colonies in the U.S.; similar in design or layout of rooms or volume. In the Palestine of the German Colonies it was a repetitive pattern, not a single appearance, but a matter of policy, and this was the expression of originality. The knowledge and intelligence imbedded in the Templer buildings were imported, as an element of constancy (see discussion p. 458 above), which the Germans maintained when they immigrated, and made the necessary adjustments to local conditions.

This, combined with the input of local conditions, materials, and economy, created a new type of structures unprecedented in Eretz-Israel; in this sense, these houses were genuinely original: a synthesis between a building construction tradition imported from Württemberg, some elements which were common in Württemberg such as the symmetrical plan, the chimneys, the basement or the hip-on-gable roof and local materials like limestone, later steel rails, and concrete. Some were created in Palestine as a part of their adaptability: the prefab elements, wooden shutters, iron hardware. Other imported elements did not catch on and remained isolated cases, such as the latticework copied from Lochgau, or the fishscale wooden shingles in Walhalla (see above). Some elements were imported from other countries, but the tradition of their use was German, like the clay tiles and the dimensional lumber. The integration of all these, created a new type of house in Eretz Israel.
Templer Buildings and Sustainability

In present-day architectural theory, sustainability has three main faces: minimization of energy consumption, conservation of materials or resources, and an environmentally pleasant design. This discussion focuses on the Templer houses in relation to these three faces, in all phases of the Templer settlement in Eretz-Israel.

Energy Consumption: Initially Templer buildings differed from Arab houses in their envelope wall thickness: they had thinner walls because construction was more accurate, and lighter roofing system required less massive walls to resist heavy roofs loads of the kind constructed in Arab houses. In addition windows were larger, and there were more windows in the walls. Moreover, the fifth face of buildings, the roof, in most cases, was lighter. All these made for a less effective heat-gain and heat-loss situations in Templer houses. Other factors, however, compensated for this situation:

1. The general layout of buildings, orienting houses on a north-northeast to south-southwest axis so that as much as possible of a house envelope was exposed to the winds, thus cooling it in the summer.

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2. The dense locating of trees next to buildings had, besides the aesthetics involved, an energy consideration, creating a micro-climate around the house;

3. The use of professional hardware and joinery details, so that openings were tightly closed, preventing energy leaks from or into buildings.

4. The use of basements had a similar consideration, creating a cooled space for food storage.

5. The general design policy of a ‘boxy’ building mass also contributed to reduction of heat loss or gain, by minimization of the surface area of envelope walls.

**Conservation of Materials:** Templer buildings also excelled in materials or resources conservation. The fact that most of them survived, though in many instances not under favorable maintenance, speaks for itself. The reason is to be found in the German tradition of quality control, accuracy, and selection of durable materials. The German craftsmen were an invaluable commodity, not only for Templer communities but also for Jews and well-off Arabs. Templers built some of the first Jewish colonies and wineries, and were hired as construction workers even at double the market prices.894

Conservation of materials must also be regarded in terms of minimal waste: in most Templer houses, there is no excess use of anything: materials, space, or form. This not only for reasons of economy, but because it was inherent in the Templer way of life, at least in the ‘first wave’. In the last period of the Templer construction activity, between the two World Wars, buildings were built from
different materials, but they too also endured. (See for example the photos of the Aberle, Neef, and Haering houses above, p. 465 and p. 251). The Templers’ prefab concrete products lasted for a hundred years, and still look new today, while the Chelouche products made next door fell apart. At all levels of Templer building: residential, service, and public, the same strictness prevailed: materials specifications were graded, but never below a certain level. In Wilhelma or Sarona, service structures were made of soft limestone (kurkar) and left unplastered; residential structures, which were built with the same material were plastered, with high quality, durable, waterproof stucco and plaster. In Wilhelma, when there was a shortage of building material and Eppinger had to resort to adobe (see photos p. 302 above), the result was also a sustainable structure still in use today. In public buildings there was even a higher level of materials and ornament. In spite of the use of lesser materials, these secondary buildings were built with durability in mind and also lasted a century and more.

Photo 441: Venus joinery In Sarona.
Photo 442: Hahn smithy shop in Wilhelma.

Sources: Albert Blaich Family archive, Australia, and photo August 2002. Both structures are built with soft limestone and without stucco. The rough finishing differentiates between the family house and the service structures, although both were built with the same accuracy and strictness. Some service structures were converted to dwellings, after 1948.
Environmentally pleasant: Templer houses were very carefully designed, in terms of appearance; the simple designs and compositions becoming an element of constancy; their appeal and ‘pleasantness’ also endures: even today one admires the design quality and aesthetics of these German houses, a quality not associated with a specific style, or fashion; the aesthetic sustainability of these houses goes far beyond their time of construction. The seriousness with which Templer architects and builders approached their work, created a value detached from time and location, much like traditional Japanese architecture which has the same sustainability, and which influenced such Western architects as Frank Lloyd Wright.

What is a Templer House in Eretz-Israel?

The basic question: ‘what brings about the built form?’ is discussed in detail in Rapoport (1969) and Ben-Artzi (1996); this is one of the basic issues for this
study. The three main forces identified as active in forming the built landscape the Templers created in Palestine, including the settlement design and the house design in the same system: The ideological motivation system, the deterministic system, and the possibilistic system. To these, Ben-Artzi added the Professional System, which was the body of building construction know-how possessed by some of the Templer settlers, the fact that at that time there were books for ‘do-it-yourself’ houses, popular in the German public, and that it is possible that at least some Templers used the knowledge from these books. 895

*Overview by Periods:* The information gathered in this study suggests that several factors were involved in bringing about the built form of Templer architecture; each period having its own determinants.

*In the ‘first wave’ in Haifa* these factors were,

A. the Templers awareness that construction was a serious and systematic endeavor, that it had to be dealt with professionally, and that the Templers’ architectural say in Palestine had to make its unique and permanent mark. This happened in Haifa, first with an impressive public structure, followed by an unprecedented professional settlement design, and long deliberation as to how to build the first houses. They were exceedingly conscious of the impact they sought to make on the built landscape. Haifa was where the standard was set, but it was only partially maintained and was not identical in other colonies: houses in Sarona and Jerusalem were different.

B. Because Haifa was the first colony, there was no certainty as to how the buildings would respond to local conditions, so local traditions and materials were resorted to, in the first place.

C. The notion that the houses had to reflect well-being, efficiency, and not less importantly, a certain aesthetic level.

D. Simplicity, as a means of coping with the unknowns of construction in an unfamiliar environment, and as an expression of a modest way of life.

In Sarona, the built form was determined by

A. Available materials,

B. The fact that the Templers had already made their architectural debut in Haifa, diminished the drive to repeat the same (costly) impression, so houses in Sarona were simpler in design, using less elaborate stonework, and stucco to cover the rough kurkar blocks. Also roofs and other details were different.

C. As in Haifa, settlers in Sarona wanted to endow buildings with the sense of fairly high standards of living, and a European touch to distinguish them from local building tradition.

In Jerusalem, the first houses were affected by

A. The location, the proximity to the Old City which compelled the settlers to make a quality design commitment; that found its expression in the ‘oriental’ motifs in the Frank and Schmidt houses; these motifs stemmed from religious feelings, later from the Templer associations with Jerusalem, i.e. Hoffmann’s decision to establish the regional educational bodies there.
B. There was, probably, also some political awareness: the fact that Jerusalem was the focus of attention of the foreign Powers, that also built there, could hardly be ignored.

C. The availability of quality limestone, stoncutters and masons, and the existence in situ of elaborate structures and capable architects.

In the ‘second wave’, the built form in the colonies was influenced by:

A. The introduction of new materials, the steel “I” beams, the concrete, and the prefab elements.

B. The presence of established craftsmen who opened joineries, and smithies; the concentration of architects and builders in certain colonies.

C. The profound socio-economic permutations, bringing with them occupational changes that resulted in a different way of thinking about how houses could and should look like and perform. There was more money, and old houses were subject to changes and additions.

In the (British) Mandatory Period, other factors became important. This was already the second generation of architects - like Steller and Wennagel in Sarona, Ehmann and Bäuerle in Jerusalem, Ruff and Weller in Haifa - informed and up-to-date, some had even traveled to Germany to be briefed about new building technologies. Hugo Wennagel and Fritz Steller, for example, studied architecture together in Germany, between 1929-1933, at the Bauhochschule in
Lemgo, near Detmold in Northern Germany. This period is also marked by the continuing weakening of the religious fervor of the Templers, something that affected their drive to maintain cultural identity, at least in terms of architectural expression, so their houses became a part of the general architectural scene in Palestine. Still quality structures, designed and built with great care and dedication, they were becoming no different from similar houses built by non-Templer architects, who also adopted the International Style.

In the section on Originality (above), it was determined that Templer houses were genuinely original creations, products which evolved as a synthesis of a number of forces; in addition, these houses reflected Templers’ willingness to create a new cultural environment; the houses of the ‘first wave’ were a phenomenon of primacy; this house type appeared repeatedly in all German Colonies. This quality of primacy changed during the 80 years of the Templer presence in Palestine. Similar houses of this type were to be seen elsewhere, (for example the Amana colonies, see above), but not in Palestine; the introduction of these types to Palestine was, in the context discussed, an original expression.

Characteristics of Templer house in Eretz-Israel, therefore, were not uniform; they changed from products which were unique in the built landscape of Eretz-Israel, (1868-1875) into another product, that blended into the existing built landscape.

896 Irene Blaich, personal communication April 25, 2003. Mrs. Blaich is relative to Hugo Wennagel. Evidently the Bauhaus was not the only school that advocated the new style and design approach.
Haifa Houses: In the ‘first wave’, in Haifa, the Templers started by building a community house, probably as a token of their having ‘taken root’ in the location.\textsuperscript{897} The first houses they built in Haifa (and in Palestine in general) were not temporary houses, unlike what was frequently the case in other German settlements, even in the U.S. (see above, p. 174 Larned, Kansas). This pattern seems in line with Ben-Artzi’s observation of ‘ideological motivation’, associating the quality of the houses with a clear message for the locals and the rest of the Templer community. In Haifa, a standard was deliberately being set for the rest of the colonies to follow: this was where the first houses appeared, and these were their attributes:

- Local stone (limestone) masonry.
- Two full levels above grade, a third level below the roof, a fourth level the basement below ground floor, mostly buried and with windows.
- The house aligned with the long axis parallel to the street axis.
- Stone fences separating the house from the street.
- Roof wood substructure, stone gable roof, low pitch, two slopes, red interlocking clay tiles.
- ‘Boxy’ appearance; simple, symmetrical façade design;
- Entrance raised above grade; one or more stone chimneys; stone gutters; water cistern below ground.
- Symmetry and simplicity in plan.
- Ceilings constructed of wooden beams and planks. The appearance of steel rails later allowed other solutions.
- Relatively large volume: 220 Sqm, of covered floor space, not counting basement and attic.

\textsuperscript{897}Ben-Artzi (1991), p. 86, quoting the \textit{Warte} 42, (1869), p. 165, points to the nomenclature attached to the structure, ‘\textit{Musterhaus}’, meaning an exemplary house, expressing the Templers’ intention to become an example for the locals.
Openings (exterior and interior) spanned with segmental arches.
► Wooden shutters usually painted green, and associated hardware.
► Projecting belt courses and molding frames.
► Biblical texts above the entrance, sometimes with the building construction date.
► In the early houses, the use of an outhouse.
► Projecting balcony on the main façade; this was relatively rare in Württemberg, and can be considered a climactic adaptation.

These were the initial visuals, in the ‘first wave’ of settlement, as seen in Haifa, and discussed in detail in the *Markers of Templer Architecture Section* (p. 377 above). Some of these were retained as elements of constancy, appearing in later houses, some disappeared later as the Templer house changed following changes within the Temple Society, and other changes outside it (see section on Templer Architecture and Change above).

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**Photo 445 and Photo 446: Haifa, Blaich House and the Struve Houses.**
In Jaffa at the same time, the Templers created little on their own. The Jaffa houses in the ‘American’ settlement which the Templers took over were there when they settled. Here their adaptability (see above) played a role: they changed and added to existing buildings, and built a few new ones, all stone masonry construction; these looked quite different from the Haifa colony: it was urban in character, more heterogeneous in population. Therefore in the ‘first wave’ in Jaffa there is no map-able consistent body of houses. Walhalla, founded later, will be discussed later in this section.

The few houses built in the ‘American’ lobe, were made of kurkar, were multi-level as in Haifa, had large windows with wooden shutters, and the exterior walls built of inferior stone unlike in Haifa, were stuccoed. The houses were mostly roofed with red interlocking clay tiles, as in Haifa, with a few exceptions; by 1874 the most prominent house in the Jaffa colony, the Breisch house, had been built (see photos p. 422 above), and stood out in size and form: its use of full arches, massive bearing walls and clay tile roof, making it distinct. Biblical texts over the entrances did not appear here perhaps because of the Evangelic character of the colony or maybe because the houses in the main were built by others; anyhow, there was less feeling of creativity and primacy in Jaffa; less emotional attachment, perhaps also less naivety.

Sarona, started out as a rural community. The houses of the ‘first wave’ had the advantage of being built from scratch. Many of the visuals in the Haifa houses repeated in Sarona. Following are comparative visuals:

► Soft limestone masonry construction, stuccoed.
► Symmetry in plan and elevation; same ‘boxy’ appearance as in Haifa.
► The same vertical four level division as in Haifa: All basements vaulted.\textsuperscript{900}
► The same volume and floor area.
► Mostly zinc gutters, and downspouts.
► Same ceiling construction as in Haifa.
► Same house alignment in relation to the street as in Haifa.
► Fences around the houses were wood poles and planks.
► Entrances raised above grade; one or more stone chimneys; water cistern below ground.
► Most openings were rectangular, due to use of lumber beams and later (1900’s) concrete lintels.
► Simple two-slope roof construction, clay tiles, resembling Haifa roofs, but with slopes hanging over the gable.

\begin{center}
\begin{figure}[h]
\centering
\includegraphics[width=0.7\textwidth]{Haifa_Sarona_roof_detail.png}
\caption{Haifa and Sarona roofs, gable detail.}
\end{figure}
\end{center}

Freehand drawing Aug 2002, no scale.

► Projecting belt courses and usually no molding frames.

\begin{quote}
(see photographs of the \textit{Laemmle and the Kuebler Houses in Sarona}, p. 254).
\end{quote}

\textsuperscript{900} Thalmann (1991), p. 88.
In Jerusalem, the ‘first wave’ houses were more diverse; the reason, probably because the settlement started as a private effort, only later being ‘adopted’ by the Temple Society as a colony.

► Stone masonry construction, use of local limestone as in Haifa; dressing was rough ‘khaami’ finish, the exterior walls had two layers of dressed stone and a filling of rubble stone.
► Usually projecting joints in the exterior wall face.
► The early houses were larger than the average Templer houses.
► Use of ornamental stone elements.
► Same entrance location in relation to grade as in Haifa and Sarona.
► Vertical division was inconsistent: some houses had a single floor, some two; all had basements as in Haifa and Sarona, and,
► in most houses, a cistern.
► Same house alignment in relation to the street as in Haifa and Sarona.
► As in Haifa, openings were usually with a segmental arch, as a derivative of the stone construction. In early houses, a double arch, the top one being a relieving arch, as in other locations in Jerusalem.
► Stone fences with iron gates and latticework, usually designed vertical rods with square and twisted cross section, similar to what was done in other parts of Jerusalem, and made of rubble or roughly cut limestone, topped by rounded cementing material.
► In the early houses, an outhouse.
► Use of wooden shutters, usually painted green, made by Templer joineries, as in the other colonies.
► Symmetry in plan, with a wide corridor splitting the house into two equal sections, with two rooms on each side. The kitchen would be at the end of the corridor.
► Same roof system as in Haifa.
► Use of polished flat stone or as was in other colonies, hardwood planks for flooring.
► Biblical texts above entrances as in Haifa.
► Quoins varying in size and dressing.

Photo 447 and Photo 448: Jerusalem, Lendholt House and Schmidt House, built 1875.
Photos: October 2002. Both houses use roughly dressed stone, segmented and full arches, balconies on the upper floor, four-slope roofs with zinc gutters. The quoins and the moldings are made with a finer dressing stone.

In the ‘second wave’, new colonies were established, and the olden colonies underwent changes and additions, i.e. adding another floor. In the new colonies, Wilhelma, Waldheim and Betlehem - the settlement pattern was temporary houses first, than addition of living quarters to service structures, and only later the erection of permanent houses. The Templer house changed; it now became a different entity, although most basic attributes were retained. These are the main attributes:

► Use of prefab concrete elements, replacing stone segmental arches, decorative iron banisters, stairs, even parts of the traditional fences. Painted concrete floor tiles (also called ‘carpet tiles’) replacing hardwood planks and flat polished stone.
► Outhouse moved inside. Also bathrooms installed inside.

Temporary building components redone and replaced with permanent ones, like wooden stairs in front of houses in Sarona that were replaced by stone stairs.\textsuperscript{902}

Some houses incorporated ‘romantic’ and sculptural elements, such as turrets and toothed parapets.

Introduction of reinforced concrete and steel “I” beams allowed for new ceiling technologies, projecting balconies, and stabilization of old structures with tension rods.

Use of decorative paint in interior. In general, houses of this period contained more decorative elements than the old ones.

Cornice return, stone chimney, and stone gutters appeared in the ‘second wave’ as well.

\textbf{In the Mandatory Period}, the Templer house changed again, perhaps its most drastic change, in form, building technology, and functionality. These houses were typical representatives of the International Style, expressing asymmetrical composition, absence of ornaments, unrelieved right angle cubic general forms, absence moldings, large windows, often in strips, flat roofs,

\textsuperscript{902} Thalmann (1991), p. 88, quoting the State Archive documents, Section 67, file 456.
occasionally rounded corners. Interiors were wide, open, free-flowing spaces instead of small, boxy rooms. In the local landscape, this style was singular for the simplification of its construction procedures, the standardization of its building components, and its massive use of reinforced concrete and smooth stucco, with little use of color.

The Templer International Style houses were tough competitors for their Jewish counterparts. For the first time, the Templers produced architecture that was not vernacular, actually it was the very opposite of vernacular. These architectural solutions transcended national and cultural boundaries. It was natural that the most elaborate International Style houses be located in Sarona, next to the heart of the Modern Architecture doing in Palestine, Tel Aviv.

Photo 452 and Photo 453: Katz House and Zaslavsky House in Tel Aviv, 1930s.
Source: Eylon (2000), p. 2. The Katz House was designed by Pinkerfeld, the Zaslavsky House by Neufeld. Both houses use elements frequent in the Bauhaus syntax: smooth white surfaces, regularity and lack of symmetry, composition of large volumes and openings, right angles, projecting balconies and overhanging slabs, use of industrial elements like pipes for the railing. See also photos of the Kroskel House by Kauffmann (above) from the same period in Tel Aviv.
The International Style in Templer houses also appeared in Haifa, but these were clad with limestone facing. (See photos of the Ruff- Weller houses p. 469 above). In Jerusalem there were no houses of this class in the German Colony, perhaps because the Templers wanted to retain consistency of character for the colony which by this time had become a neighborhood in fast-expanding Jerusalem. Both Arab and Jewish architects in Jerusalem, however, were busy designing International Style houses in other locations in Jerusalem: Kaufamann, Favier, Hermet, Czerniak, Krakower, and others.

One observation must be made regarding the International Style single family houses: all different, they all use the same morphology syntax; in the 1930s they appeared in the main towns, in Arab, Jewish and German neighborhoods, and in this sense, became truly ‘international’, with architects commissioned to design them regardless of their nationality. The German International Style houses first appeared in Walhalla and Wilhelma as simple versions of that style, which found its most elaborate expression in Sarona.

Photo 454 and Photo 455: Wilhelma, Kazenwadel House and Vollmer House.
Photos: May 2001. These appeared in the early 1930s and were among the first International Style houses. These early houses already show typical characteristics: regularity, right angles, composition of volumes, projecting concrete slabs. Some elements of constancy remain from the old houses: simple design, basements, elevated entrances, the long side facing the street.
The last houses built in Eretz-Israel by the Templers are the late 1930s International Style houses in Sarona, and some in Haifa. In all probability, these were influenced by publications about the ‘new wave’ of architectural design, and by the flourishing international Style architecture next door in Tel Aviv and other towns.

Photo 456 and Photo 457: Sarona, Aberle House; Haifa, Lorenz House.
Source: Albert Blaich Family Archive, Australia, and the Weller Collection, compiled by the Albert Blaich Family Archive. In both houses, lessons of the local climate were implemented in extensive use of balconies. Both houses have enclosed car garages with rolling doors. In the Lorenz house, the fashioned chimneys are part of the design, as is the limestone cladding. In the Haering house in Sarona (see above in the Sarona Section p. 251), the roof was a four-slope clay tiles, an element outside of the International Style genre, but made with low pitch, so its visual effect was kept minimal.

The architectural characteristics of these houses were no different from the non-Templer International Style houses, discussed above. There are, however, some elements of constancy, rooted in the building tradition created in Eretz-Israel which are imbedded in the Tepmler International Style houses: their serious approach to house design, careful selection of materials, custom functionality and individuality, the entrances raised above grade, basements with windows above grade. In the examples above, the architects did not hesitate to
incorporate traditional visuals, such as clay tiles in the Haering house, or a traditional chimney in the Tietz house, or limestone cladding on concrete walls.

The Templer house in Eretz-Israel, therefore, must be regarded as a changing entity, not as a uniform consistent product. There were distinct groups, each with its own characteristics as described above: (a) The early houses in Haifa, Sarona and Jerusalem, (b) The ‘second wave’ houses, the modified, which implemented more advanced technologies, removal of temporary elements, use of romantic ‘picturesque’ elements, decorative interior elements, balconies. (c) The International Style buildings which can be sub-grouped into Early and Late. Some elements remained constant, and are described above. What affected the change in the built form was (a) The rapidly changing reality in Palestine, (b) The changes within the Temple Society, and (c) The general changes in building technologies and design philosophy. The question of originality in this context is secondary; the first houses made an original first appearance in Eretz-Israel although they were influenced by the local tradition; the last houses were not original and detached from any vernacular approach.

Templers’ Architecture and the Evolving Israeli Architectural Landscape

The New Yishuv, the Jewish population that started flowing into Palestine from the early 1880s and onwards, was inexperienced in building construction, in house design and in settlement design. However, in the Palestine of the 1880s, there were already four successful German Colonies, which became a focus of interest, and a source of inspiration, for the Jewish populace.
The interaction between the Jewish and German populations was already discussed (see p. 438 above); beyond the economic interaction there was a diffusion of architectural and construction know-how from the Templers to at least some of the Jewish communities; the Jewish colonists appreciating the ‘European touch’ internal to the German Colonies, and identifying with it. The Jewish colonies, however, in their final built form, were notably different from their German counterparts, as described by Ben-Artzi. Several features and technologies were adopted by the Jewish settlers and ‘Settlement bodies’: the application of overall settlement design; the attempt to create a new entity as a part of an ideology; the involvement of Templer planners, surveyors, engineers and builders in the Jewish colonies, the use of clay tiles for roofs, the dimensional lumber for roof substructures, the use of wooden shutters and glazing; the use of outhouses; most of the Jewish houses were stone masonry, probably as a lesson learned from the German settlers; and, not least, simplicity of design and the separation of farming and living functions. There were also many differences: the Jewish houses in the colonies were smaller, more elementary; many of the houses were built in a uniform repetitive mode dictated by the ‘settlement bodies’; there were no basements, usually no second floors or attics, roof designs was different.

The architecture for rural Jewish settlements which started as a ‘stepdaughter’ of the German Colonies, took years to become the leading generator of modern architecture in Eretz-Israel; only in the late 1880s, there

began to surface evidence of Jewish planners for the rural settlements, some of
them students and apprentices of Templer planners.\footnote{Ben-Artzi (1988b), pp. 267-271.}

The major influence of the Templer Colonies on the Jewish built landscape,
in the assessment of this study, is not one particular feature, technology or
principle, although these have been discussed earlier, but in the general
approach and recognition and acceptance by Jewish decision-makers and
builders of the importance of planning and systematic house design. The
Germans were the first in Eretz-Israel to apply this understanding, which Jewish
settlers and ‘Settlement bodies’ adopted from the outset. In contrast to traditional
house construction in Palestine, as practiced in Arab villages, this was a true
revolution. The Templer residential architecture stood for social and cultural
values in addition to its ideological message. The fact that it \textit{stood for something,}
and \textit{used}, as a message-conveying item, has to be compared to the ‘institutional’
architecture practiced by the foreign Powers of the same time in Palestine.

\textbf{The Lessons Learned from This Study}

Has this study challenged the research questions? The study started out to
categorize, identify and catalogue Templer residential architecture. As in many
qualitative studies, a cardinal issue surfaced during this procedure: the
\textit{morphogenesis} of the built form; namely: a study of the forces active in
generating the architectural product.
The questions presented at the launch of the study were basic, later developing into more specific and focused issues; the fundamental aim being to document, analyze and understand the Templer residential architecture in Eretz-Israel, to search for connections with the U.S. Templer architecture and to compare it with its counterpart, the evolving Jewish architecture in Palestine. The study findings were that there was very little in common between the Templer settlements in the U.S. and Palestine, although there is evidence that both communities knew of each other, U.S. Templers emigrated to the Palestine colonies; some U.S. Templers who took responsibility in their communities, were educated in Jerusalem; and some material support for the Eretz-Israel colonies came from the U.S. Templers. The study was more effective in the descriptive portion of the Eretz-Israel Templer architecture, and in providing understanding as to the forces active in its formation, development, changes, and its interaction with architecture of the Jewish colonies, along the defined time axis. In this respect, the study has addressed the research questions.

**New Knowledge:** There were several areas, in which the study has generated new knowledge. To begin with, this is the first time that such a far-ranging architectural study of the Templers, has been conducted; it has been touched before, of course, by historical geographers, and one architect, David Kroyanker; however, Kroyanker wrote about Jerusalem only, as Jerusalem’s architectural history is his specialization, and made no attempt at comparative analysis; other reservations are recorded in the Literature Review Chapter (p. 36 above.) Ben-Artzi, Kark, and others have also dealt with the built form of the
Templers, but in the contexts of historical geography and settlement history. This study, therefore, provides an architectural outlook identified as a site for exploration and a vacuum to be stepped into.

This is also the first time that the Templer settlement in the U.S. has been documented and followed by fieldwork. There is also new knowledge in the new interpretation and documentation of architectural elements diffused from Germany to Eretz-Israel, and discussed in several places in the study.

Furthermore, this is the first time that comprehensive compilation of the German settlement of Beisan has been carried out, supported by extensive field work and resulting in understanding of the building technologies implemented, the historical background of the German settlement in that region, and outlining possible influences generated by this minor chapter of the Templer settlement.

Finally, the project has managed to expose and document archival material which was in possession of Templer families, and never published before, thus helped shed new light on the architectural endeavors of the Templers in Eretz-Israel.

**Conclusions**

Based on the material presented and analyzed in this study, the following conclusions are drawn:

1. The most influential determinants on the built form of the Templers houses was their social and spiritual motivation; their architecture became a tool
to promote their mission for creating a new and better society. By so doing, they created a new architectural statement in the Eretz-Israel theater, powered and backed by their building construction know-how and the sensible implementation of new building technologies as these came along.

2. The Templer houses were an original creation in the context of the realities of the built landscape in Eretz-Israel, in particular in the ‘first wave’ of Templer settlement in Palestine. Some architectural elements were transferred from Germany, others were an adaptation of local materials and methods, and a result of what had been experienced, gathered and accumulated. Some houses show an attempt to interpret local architectural syntax through modern building technologies. The synthesis of all these created a new type of architecture.

3. There was no inclusive general policy regarding the format of house design or colonies, for that matter; each colony developed its own built landscape as a result of the local conditions and the settlement layout which was a prerequisite move in all colonies (except in Jaffa and Jerusalem). This was also true in the U.S. Templer communities, Maresa and Tempelfeld, where local conditions and circumstances were major determinants. These were local efforts, and depended heavily on the people who led these operations and took charge and responsibility.

4. There is only a minor connection between the architecture of the U.S. and Eretz-Israel Templer Colonies, and this seems not to be a result of an influence but rather a situation in which similar conditions generated similar
architectural solutions, it appears that the association between the two groups was detached from architectural interaction.

5. There is no single entity that can be described as a 'Templer House in Eretz-Israel'. Instead there were a number of formats which changed in time, location, and circumstances.

6. Inductively, this study may point to some of the major forces active in generating the built form, in general: the spiritual contents and charge contained by a cultural group, the local conditions such as climate, availability of materials and technologies, the local economy and local political make-up. The human quality of a group also has a say in its architectural expression: how the group is being managed and the capabilities of its leadership; the level of professionalism and know-how that a group may or may not possess; the ability to adapt to a changing environment, circumstances and conditions; and the level of determination and drive the group needs to muster in order to succeed in its confrontation with a hostile and aggressive environment.

This study may point to a reality, in which short-lived and single or small volume appearances of certain architectural phenomena as structures and designers, may have long-range and often lasting affect on the general architectural scene, whether in the same location or not. The Bauhaus School (1919-1933) was short-lived, only 14 years, but its profound affect on the architecture of Europe and the U.S. is felt until today; single architects (i.e. Wright, Le-Corbusier, Mies van der Rohe,) changed architectural landscapes not only in their own countries, but in many other locations in the western
hemisphere. Single structures such as ‘Falling Water’, ‘Villa Savoye’ and the ‘Crystal Palace’ produced thousands of derivatives that still echo in various points of the globe.

In its own quiet understated way, the Templer architecture in Eretz-Israel succeeded in doing just that. It was a very small movement; it built very few houses, in very few locations, in a forsaken corner of the world. But this architecture was to become a source of inspiration for an emerging generation of Jewish builders, architects and planners. True, it was a short-lived phenomenon and the people who produced it were moved out, leaving us only the structures they built; and there are not many of these because it was also small in scale, only about 200 houses. But it became, and remains, part of an unprecedented historic renaissance in what, when the Templers first came to it – bringing with them their diligence, skill, and taste – was one of the most desolate provinces of a decaying empire.

**Recommendations**

*Recommendations* stemming from this study must be divided into three main categories:

1. To aspire and add new dimensions to research relating to the U.S. Templer colonies.
2. To further study of the affinity between Jewish and German designers and builders, and incorporate Templer architecture as a subject in Israeli architectural education.

3. To do whatever possible, and necessary, to preserve the structural heritage of the Templers in Israel.

The following is a detailed discussion of the above.

1. The Templer Colonies in the U.S., studied for the first time in this research; for various reasons and limitations, the study produced almost no visual evidence as to houses and their characteristics. Was there a pattern, or design policy which Templer designers and builders followed? Who were they? What happened, historically, to the houses? Why have they not survived? What were the social (and perhaps other) forces leading to the change from the Templer teachings to non-denominational? J. Schumacher, as a leader: what was his role and why did he leave everything behind in the U.S. and embark on a new project on the other side of the globe? The Maresa failure: were there other reasons, as hinted in the memoirs of O. Gemmer? Future studies will, no doubt, be able to provide answers to at least some of these salient issues. These issues need to be researched by academic bodies specializing in German-American history, such as the Max Kade center for German American Studies in Kansas University, located just 150 miles east of Gypsum Kansas, or the American Institute for Contemporary German Studies, located in Washington, D.C., and dozens more such bodies in the U.S. and Germany.
2. Palestine and the Jewish Settlement: the 1880s was the time when new Jewish colonies, and later (1920s) new settlements such as kibbutzim and moshavim, were formed. The Jewish ‘Settlement Bodies’ active in this process were familiar with the Germans and their colonies in Palestine but so far there is almost no evidence of direct association. Ruppin invited Kauffmann to design many settlements; why did he not approach competent Templer settlement designers such as G. Schumacher? Ruppin had connections with Templers, as surfaces from his memoirs and Schumacher was already back in Palestine by 1924, after an exile in Germany. There were other up-to-date Templer architects like Wennagel, Steller, and Eppinger, Ruff and his partner Weller in Haifa, etc. Why is there no evidence that they planned for Jewish clients? The Beisan venture: many unanswered questions are posed in the Beisan Section above.

All these unanswered questions call for further research and will no doubt enrich our understanding of the very active construction period in Eretz-Israel, which has become a part of the history of the New Yishuv, thus bringing about new learning experiences in Israeli higher education. My recommendation regarding this issue is to plan syllabi for new courses in architectural education that will incorporate learning, research and preservation of Templer historic structures, as part of the learning process. A typical syllabus for such a course would have these modules: history of the Temple Society, analysis of the its architecture, visits to the Templer Colonies, architectural documentation of historic houses, and fieldwork pertaining to preservation, in cooperation with national agencies involved. Conferring the values of heritage in architectural
education is currently a weak point in Israeli architectural education, and this would be, unquestionably, a step in the desired direction. In Israel, there are four bodies that have architectural education programs, and can make use of the knowledge: Technion Institute in Haifa, Tel Aviv University Department of architecture, Bezalel School of Arts in Jerusalem and YOSH College in Ariel. The latter has already incorporated a course in its program named ‘Chapters in the Settlement in Eretz-Israel’ as a direct result of this study. Other bodies which can benefit from the study are the Yad Ben-Zvi foundation in Jerusalem and Avshalom Institute for Israel Knowledge in Tel Aviv.

3. Preservation of historic Templer structures, as a national effort and policy. Without appreciating the past, there is no future; acknowledgement of the importance of historic structures has long been understood in many societies. Sometimes historic structures are not monumental, they are devoid of ‘stylistic’ attributes, are plain-looking and not always aesthetic. But they are always able to tell more about our past, sometimes as the last relics of a period. Thus they are objects to be studied, visited, appreciated and respected. This study recommends that the Israeli national and local agencies dealing with preservation be assigned more legal responsibility, be more involved in legislature to that affect, and have more authoritative role in the planning boards whenever historical structures are involved. The main body dealing with preservation in Israel is the Buildings and Settling Sites Preservation Council, associated with Israel Nature Preservation Society. There are a number of local bodies associated with municipalities, such as the Preservation Team in Tel Aviv.
municipality. UNESCO has also taken part in this effort in Israel, and has granted a special classification to the town of Acre, and recently to Tel Aviv, as worthy of preservation. These are the bodies who should be cooperating in the continuous effort to preserve the built up landscapes in Israel.
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Appendices

Appendix A : Dr. Charlotte Laemmle’s account, the House in Sarona

Laemmle House
Sarona

This information derives from the discussions [with] and storytelling by Lina Laemmle, daughter of Georg Laemmle and Wilhelmina (Mina) Schillinger, and Agnes Laemmle, wife of Otto Laemmle, son of these parents. It is also from the written and oral history of Otto Laemmle 8.7.1911 – 18.4.1998.

The inhabitants

This house was built for Christian Friedrich Laemmle (Fritz) 2.6.1841 – 7.8.1915, who came to Palestine in 1870. He was an active elder in the Palestine Templer Community, using his entrepreneurial skills to raise funds from businesses in Germany to help establish the Sarona community house and church. He also initiated various agricultural community developments; including introduction of selected European grape varieties, establishment of vineyards in Sarona and setting-up a community orange company. His own hobbies included bee-keeping and agricultural research. Fritz Laemmle kept a large number of books in a library/study in his house (later the formal dining room). Concerned with the long-term welfare of the community, he also arranged for the immigration of young, single Templer women from Germany, as possible future partners for the surplus of single men in the newly established colony of Sarona. Fritz Laemmle was Mayor and leading elder of the Sarona community in its early days.

The house was built to accommodate two families (with shared facilities). Throughout most of its history (1875 to 1941) this was indeed the case: The family of Johann Georg (Hans Georg) Laemmle 20.12.1841 – 18.9.1891, Fritz brother-in-law, shared the house with him upon their arrival in 1885.

Fritz had three children but none survived: Two daughters died in infancy in his home village of Leutenbach, Germany; 17 year-old son died accidentally soon after being given a shotgun as a present from his aunt and uncle upon their arrival in Palestine in 1885. Two later marriages were childless. Hans Georg had eight children; some were already grown-up when they came to Palestine.

Hans Georg’s seven daughters gradually married and left the home. Eventually the only son and sixth child, Georg Laemmle (28.3.1881 – 15.12.1913), obtained his parent’s half share in the house, for which he paid 350 pounds.
Georg Laemmle died in his early 30s in 1913 of typhus. Fritz Laemmle died in 1915. His half share went to his wife Wilhelmine Schillinger (third wife) who lived in the house until her death on 29.5.1935. Georg Laemmle’s wife Mina also lived in the house with her three young children – Fritz, Otto and Lina. Mina Laemmle (nee Schillinger) died of breast cancer in 1928, leaving her three adolescent children and their aging aunt in the house.

Fritz, Otto and Lina, continued to live in this house together until the late 30s (Otto and Lina) and early 40s (Fritz and family). During this time Fritz married Erni Groll (1932) and started a family. So, for most of the time, this house was shared by two families within an extended family.

The House

The Laemmle house was built of local sandstone and rendered with a cement-like surface, painted a cream colour, windows were painted green. The roof was tiled with terracotta tiling. Floors were of polished or painted wood, apart from the tiled kitchen and entrance. All interior walls were whitewashed, not wallpapered. Sometimes colour, cream or light lilac was added to the whitewash. Cornices were simple, sometimes painted a different colour.

A Tour Through the House:

The Front Garden

The front garden was approximately five –seven meters deep. Plants, which grew there, included oleander bushes, a jacaranda tree, a trumpet bush, geraniums, roses (Koenigin der Nacht – a white rose) and pots of begonias and impatiens. Indoor potted plants lined the entrance and veranda. To the left of the garden was a ‘garden house’, an open structure with climbers growing up its posts. It contained a table and benches and was a nice place for social get-togethers, or simply having lunch.

Three steps lead to the front door and entry hallway.

Entry

A wide entry of two-three meters width welcome you in, from this hallway, doors opened into four main downstairs rooms.

Dining room

This room housed a large cabinet of books originally owned by Christian Friedrich Laemmle (Fritz), an unusual possession in this rural village! Table and chairs from his third wife were added later. Even later Mina Laemmle updated this furniture with a new
dining table and chairs bought from a nurse (Schwester Jenning) who returned to Germany.

**Sewing room**
Sewing was an integral part of life for the women in Sarona. Mina Laemmlle was however fully occupied with running her home and land and she employed a Jewish seamstress who came every few weeks to sew and mend. The room contained a sewing machine facing the front window, a couch and chairs, and a tall cupboard with a curtained front.

**Pantry**
A large room close to the kitchen, this housed shelves of preserves, jams and home produce. Flour, sugar etc. was also bought in bulk and kept here. Products could be bought from the *Templer Konsum* run by Jacob Jung. Later many Templers bought cheaper goods from Jewish settlers in *Montefiore* and Tel Aviv and from Arab merchants in Jaffa, causing the Konsum financial difficulty.

**Laundry**
Large troughs served for soaking and washing clothes and linen. A wooden fired boiler provided hot water, three or four metal tubs were placed on trestles in the yard, and was done outside. In the very early days, Mina would make up a lye solution made from ashes to do the washing. Washing was hung up to dry on a clothesline in the yard. Bed linen was washed only once every four weeks. An Arab woman often helped with these chores.

**Kraftfutter room, grain room or ‘Suttroy’**
This housed some of the feed for the animals. One stepped down two-three steps from the laundry.
Barley and oats – for horses, Wheat – for chickens, Gleie (wheat husks) for dairy cows, Oelkuchen (a pressed mass of lupine husks) also for the dairy cows

All these were delivered from Jaffa.

**Bienenzimmer – Bee-keeping room**
Here Christian Friedrich Laemmlle (Fritz) kept bee-keeping equipment and produced honey. After his death, it became a storage area for tools. Wilhelmine Laemmlle (Fritz’s wife) later kept brooding hens here. Much later, after the marriage of young Fritz Laemmlle (Fritz’s nephew) to Erni Groll, it became the pantry.

**Outside well**
A large underground well just outside and to the right of the back laundry exit served the water needs of the family when the house was first built. Years later it was covered by cement. Water for Sarona then came from a bore and was stored in the village water tower. All the houses were connected to the system.
Kitchen
One entered the kitchen through the hallway (second room to the left from the front). A large wood fired stove, brought from Mergentheim in Germany served the family cooking needs. A sink in a wooden bench was located under a window facing the garden. A large pomegranate tree grew just outside the kitchen window.

Washing up was done with hot water only; soap was rarely used since the washing-up water was collected in a bucket underneath the sink and added to the feed given to the pigs.

Cupboards lined the wall abutting the grain storage area. A rectangular table located along the inside wall of the kitchen with bench and chairs is marked on the diagram.

Toilet
There was an outside toilet located to the left of the back entrance in the garden area. In later years, many Templer families had inside toilets. The young Laemmle siblings (Fritz, Otto and Lina) were busy running a farm and home without parents. There was little time or money for luxuries.

Stairway
A narrow stairway led to the first floor landing/open area.

Guest room
This was a pleasant room with a window to the balcony.

Bedrooms
Three bedrooms were located on the first floor, two with doors leading also to the balcony also. Bedrooms were exchanged over the years, according to the events in the family. Usually the house was occupied as two half houses with left and right divisions.

Bathroom
This was a small room on the balcony with only a bath in it. No hot water. Most of the family washed themselves in the laundry, but young Fritz Laemmle, the nephew of Christian Friedrich Laemmle, regularly boiled water in the laundry and carried several metal buckets - full up to his bath.

Attic
Leading from the landing on the first floor was another staircase to the attic. This was a large open room used only for storage (old beds, toys, children’s items and old kitchen equipment).
**Formal room**
This was the ‘special room’ of the house, especially for the widowed Mina. Good quality furniture with fine furnishings, including antique vases and ornaments. A large portrait of the Kaiser and his wife hung on the wall. The room was always tidy and a piano, bought for young Lina to learn how to play, was on the inside wall. Otto played the clarinet.

**Cellar**
Under the entire area of the house were two underground cellar storage areas. In the very early days of this house, all foodstuffs were kept here, especially milk and butter, as it was cool. Later it was used for storage of harvests and crops, such as watermelons.

After her marriage to Fritz, Erni Laemmle wanted to build her own house. Her parents offered to help out, but Fritz however refused. So Erni had new furniture made from the Templer carpenter Herr Venus: the upstairs formal room became her lounge, later when Helmut was born, this room became a nursery and the downstairs front sewing room became their lounge. A young woman, Rosa Geist, also was employed as live-in help.

Throughout its history, of this house with its joys and tragedies was a house in which there was much sharing and caring amongst family members who did their best to live in the Templer spirit in every way.

**The Barn and farming practices**

The barn was a large two-storey building housing livestock throughout the year. The upper level stored hay. Arab workers frequently slept there also. The occupations of the Laemmle family members were:

*Christian Friedrich Laemmle was in charge of:*
mixed farming, the vineyard, the bee hives, the orchard and operated as Mayor and community leader of Sarona

*Mina Laemmle* supervised the mixed farming (predominantly dairy).

*Fritz and Otto Laemmle* did mixed farming (especially dairy), took care of orchards, oranges, apples – first apple orchard in Sarona, bananas plantation and watermelon and cantaloupe.

**Livestock:**
- Two horses – transport
- Two mules and a donkey – for farm work
- 20-30 milking cows – for sale of milk
- some calves and heifers
- Two pigs – for family consumption
- chickens – for eggs and meat (family only)
Mina Laemmle supported her young family mainly by sale of fresh milk. Cows were milked in the barn and milk carried in cans by her sons, Otto and Fritz, in cans to the dairy (Moelkerei). Here the milk was sold to residents of nearby towns, such as Jaffa and Tel Aviv. When Otto and Fritz were a little older, Arab boys were employed to carry the milk cans. Later Otto and Fritz were solely in charge and successful.

As with most Templers involved in agriculture, the family owned various plots of land outside Sarona, where crops and orchards were set up. Arab workers provided most of the labor and loyal working relationships developed between employers and employees.

Fruit and vegetables were always homegrown. Meat was infrequently consumed. Sunday dinners sometimes included chicken or pigeon.

One or two pigs were slaughtered per year providing some fresh meat. Meat was also smoked and to assist in the extended keeping of this meat, sausages were hung from wooden rods hanging across windows. This allowed the meat to catch the fresh breeze and not spoil.

The Laemmles were a hard-working and community-orientated family with strong roots in Sarona. The loss of their home and home country was a great blow. In their establishment of a new life in Australia in the 1950s, the memory of Sarona was held very dear. Hardly a day passed without mention of life in Sarona. Fritz, Otto and Lina Laemmle continued their dairy farming practices in Victoria, Australia and remained active members of the Temple Society.

Charlotte Laemmle, 2002
Visit to Sarona, 1979

In 1979 I visited Sarona with my father Otto Laemmle and my aunt Lina Laemmle. A taxi dropped us off in Montefiore (near the Ennis house) and we found our way to the main street of Sarona. The German houses stood out clearly with their solid, two-storey structures.

Photography was forbidden as the area was occupied by military personnel. As we made our way down the main street, noting which house belonged to whom, our emotions ran high. There was awkwardness and fear about being in a military area, an enormous amount of anticipation about being so close to a house and area I had heard discussed almost daily throughout my childhood and an incredible sadness for the loss of home and loved ones who once dwelled there.

Our presence and emotion could be felt by the personnel occupying this house. A commander, clear-eyed and neatly kempt, came out. Asking who we were, he allowed us to walk into parts of the house.

This was one of the most powerful experiences of my life. So much was embodied in this house and in Sarona. A young child, my father Otto, had lost both his parents here, had lived a childhood here, had grown-up all too soon here and had left all too soon. The memories lived on in him, and in me.

Hurrying and hesitant we walked quickly to the doorways of rooms. Otto tried to tell me about the different rooms. We felt like intruders and the young men and women in military uniform watched our tears fall, not untouched by what they saw.

The house was enclosed by military fencing and the rooms were stark, containing office-like setups. There was nothing homey. But the solid structure with dark wood timbers still stood firm. We thanked the commander and made our way to the freedom of the street.

To move on.

Charlotte Laemmle 17.5.2002
Table 1: migration and genealogical indications, Gypsum – Tempelfeld.

<table>
<thead>
<tr>
<th>Family name</th>
<th>name</th>
<th>Maiden name</th>
<th>* born + died</th>
<th>Originated at</th>
<th>Arrived in USA</th>
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<tbody>
<tr>
<td>Muench</td>
<td>Geoge</td>
<td></td>
<td>* Mar 3, 1830 + Apr 24, 1913</td>
<td>Baden</td>
<td>1882</td>
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<tr>
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<td></td>
<td>*Aug 13, 1829 + May 21, 1905</td>
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<tr>
<td></td>
<td>Fred W. (son)</td>
<td></td>
<td>*Jun 13, 1872 + Jul 11, 1941</td>
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<td></td>
<td>George Fred</td>
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<td>*Aug 13, 1872 + Jul 11, 1941</td>
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<tr>
<td>Schleigher</td>
<td>John</td>
<td></td>
<td>*Jul 6, 1820 + Feb 1, 1899</td>
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<tr>
<td>Kroeche</td>
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<td>Schuberth</td>
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<td>Asperg, Württemberg</td>
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<td>Ott</td>
<td>Fred</td>
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<td>Karolina Wieland (wife)</td>
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<td>Lauxman</td>
<td>Mary Magdalene Huber</td>
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<td>Barbara Sorter</td>
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<td>Last Name</td>
<td>First Name</td>
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<td>Sep 2, 1852</td>
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<td>Oct 23, 1890</td>
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<td>Thiel</td>
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<td>Hesse, ?</td>
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<td>Date of Death</td>
<td>Location</td>
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<td>Friedrike Reiff</td>
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<td>Reiff Jacob Emanuel</td>
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<td>Johnson Earl Lewis</td>
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<td>+ND</td>
<td>Gypsum</td>
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<td>Dewitt Jannice</td>
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<tr>
<td>Lyle Richard</td>
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ND: Not documented
<table>
<thead>
<tr>
<th>Name</th>
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<th>Place of Birth</th>
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<tr>
<td>Unnamed</td>
<td>*Jan 5, 1902 +Jan 5, 1902</td>
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<tr>
<td>Sippel Eldon D.</td>
<td>*Aug 10, 1934 +Mar 16, 1953</td>
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<td>Eugene B.</td>
<td>*Jul 12, 1893 +Sep 30, 1983</td>
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<tr>
<td>Mary Anna Ebinger</td>
<td>*Dec 1, 1871 +Apr 20, 1962</td>
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<td>Reiff Caroline</td>
<td>*Jun 5, 1900 +Nov 2, 1900</td>
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<td>Infant</td>
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<tr>
<td>Alexander James T.</td>
<td>*Jan 29, 1939 +Feb 14, 1958</td>
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<td>Reiff Unnamed</td>
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<tr>
<td>Muench George</td>
<td>*Feb 19, 1858 +Jun 10, 1918</td>
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<tr>
<td>Melbert Lilie</td>
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<td>Casper</td>
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<td>Raboldshousen</td>
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<td>Catherine barbara</td>
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<tr>
<td>Herzl Heinrich</td>
<td>?</td>
<td>?</td>
<td>Maresa?</td>
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<td>Schantz Johann George</td>
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<td>Neuweiler, Württemberg</td>
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<td>Pfälzgraf Hans Curt</td>
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<td>Beck John</td>
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<tr>
<td>Katrina</td>
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List of U.S. residents paying subscription dues to the Warte, 1901, 1902, recorded in the Warte.

**1901**

Bro Thiel          | Brooklyn
Bro Graf           | Brooklyn
Br Spoerle         | Brooklyn
Bro. Horlaender    | Brooklyn
Bro Schanz         | Brooklyn
Bro Kessler        | Erie
Bro Ph. Paulus     | Buffalo
Karl Oldorf        | Schenechtady
Jakob Dautel       | Philadelphia
K Edelmayer        | Buffalo
**1902**

<table>
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<tr>
<th>Name</th>
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<tr>
<td>Ernest Gaschuetz</td>
<td>Auburn Bay Co., Michigan</td>
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<tr>
<td>H Kessler</td>
<td>Erie</td>
</tr>
<tr>
<td>Oscar gemmer and wife</td>
<td>Buffalo</td>
</tr>
<tr>
<td>Ph. Paulus</td>
<td>Philadelphia</td>
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<tr>
<td>Fr. Sandel</td>
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<tr>
<td>N. Seitz</td>
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<tr>
<td>Chr. Mauch</td>
<td></td>
</tr>
<tr>
<td>Josef Graf and wife</td>
<td>Jersey City</td>
</tr>
<tr>
<td>G. Schanz</td>
<td>Brooklyn</td>
</tr>
<tr>
<td>Christian Bahret</td>
<td>Poughkeepsie</td>
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<tr>
<td>Jakob Bahret</td>
<td>Poughkeepsie</td>
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<tr>
<td>Gottlieb Bahret</td>
<td>Poughkeepsie</td>
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<tr>
<td>+ 2 more Bahret brothers</td>
<td>Poughkeepsie</td>
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<tr>
<td>5 Krauss brothers</td>
<td></td>
</tr>
<tr>
<td>Fr. Waterstradt</td>
<td>Amsterdam near Schenechtady</td>
</tr>
<tr>
<td>Mrs Loffy</td>
<td>Amsterdam</td>
</tr>
<tr>
<td>Chr. Hidde</td>
<td>Amsterdam</td>
</tr>
<tr>
<td>J. G. Wurz and wife</td>
<td>Schenechtady</td>
</tr>
<tr>
<td>Karl Oldorf and wife</td>
<td>Schenechtady</td>
</tr>
<tr>
<td>John Dalke</td>
<td>Freeman, South Dakota</td>
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</table>
Appendix C: Useful Dates

1799 Napoleon invades Palestine.
1831 Egypt invades Palestine.
1839 Great Britain opens first Western consulate in Jerusalem.
1849 The American settlement of Artas near Jerusalem.
1851 Americans and Germans settling in Mount Hope near Jaffa.
1853 The Crimean War, ends 1856.
1855 Land purchase by Templers in Gypsum, Kansas.
1856 Establishment of Templer Center at Kirschenhardthof. (Sold 1873).
1860 Establishment of Maresa, in Buffalo N.Y.
1860 Mishkenot Shaananim established.
1865 Establishment of the Palestine Exploration Fund in London.
1866 The Adams group (Americans) settling in Jaffa.
1868 Templers settlers arrive in Haifa.
1869 First Templer structure – Haifa Community House - in Eretz-Israel.
1869 Opening of the Suez Canal.
1870 Establishment of the Jewish Agricultural School in Mikveh Israel.
1871 Sarona is established.
1873 M. Frank builds the first house in Rephaim, Jerusalem.
1878 Temple Society center moves from Jaffa to Jerusalem.
1878 Establishment of first Jewish Colony, Petach Tikvah.
1879 G. D. Hardegg dies in Haifa.
1892 The Jaffa-Jerusalem Railway is opened.
1895 First house built in Walhalla.
1898 Emperor Wilhelm II visits Palestine.
1902 Wilhelma is established.
1905 The Hejaz Railway opened.
1906 Augusta Victoria complex built in Jerusalem.
1906 Betlehem founded.
1907 Waldheim founded.
1917 Jerusalem taken over by British military.
1939 Templers leave Beisan.
1948 (April) Evacuation of Last Templers from Palestine.
1948 (May) Establishment of the State of Israel.
1950 German Nationals Assets Law in Israel.
1962 Compensations for German property in Israel agreed upon between Israel and West Germany.