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AN ARCHAEOLOGY OF DESTRUCTION:
HOUSEHOLDS AND THE USE OF DOMESTIC SPACE
AT IRON II TEL HALIF

by
James Walker Hardin

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A Dissertation Submitted to the Faculty of the
DEPARTMENT OF NEAR EASTERN STUDIES
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For the Degree of
DOCTOR OF PHILOSOPHY

In the Graduate College
THE UNIVERSITY OF ARIZONA

2001
As members of the Final Examination Committee, we certify that we have read the dissertation prepared by James Walker Hardin entitled *AN ARCHAEOLOGY OF DESTRUCTION: HOUSEHOLDS AND THE USE OF DOMESTIC SPACE AT IRON II TEL HALIF* and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy.

William G. Dever

Michael B. Schiffer

J. Edward Wright

Beth Alpert Nakhai

Final approval and acceptance of this dissertation is contingent upon the candidate's submission of the final copy of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

Dissertation Director

11/27/2000
STATEMENT BY AUTHOR

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SIGNED: James W. Hadi
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To my Mom and Dad

For your love, support, and encouragement

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ABSTRACT

The dissertation investigates household organization for the inhabitants of southern Judah during the Iron Age II (late 8th century B.C.E.). It specifically attempts to broaden our understanding of the social unit which occupies the pillared dwellings so prevalent throughout the southern Levant during this time. This understanding comes through a spatial analysis of the de facto refuse from a single pillared dwelling preserved well in a destruction stratum and excavated at Tel Halif in southern Israel. Patterns observed in the occurrences, distributions, and frequencies of the de facto refuse, especially the ceramics, are associated with past activities and activity areas and used to infer the socio-economic organization of the occupants of the pillared dwelling, but only after patterns introduced by formation processes in various contexts are isolated and accounted for. Organization of the dwelling’s space and inhabitants is inferred using ethnographic and ethnoarchaeological data and archaeometric techniques, and an "archaeological household" is identified. This is compared with the biblically reconstructed household, but only after the use of biblical texts for historical reconstructions of the Iron II is addressed. Thus, in addition to study of the Iron II household, the dissertation determines the usefulness of destruction strata from tell-type sites of the southern Levant, particularly ceramics, for reconstructing household organization. It also examines the "goodness of fit" between archaeological and biblical reconstructions for the Iron II household of the southern Levant – two disparate and sometimes dialectical sources of data.
INTRODUCTION

An archaeology of destruction can refer to many different things. It can refer to the destruction of ancient settlements by natural forces or human forces. These may include volcanic and seismic forces, fire from lightning, or tidal or rain floods in the former category, and military campaigns, disease control, or simple accidents like a drunken Patrick O'Leary's or his cow's in the latter. An archaeology of destruction also can refer to the destruction of archaeological sites in the face of modern development or even the destructive nature inherent to archaeological investigation. While all of these topics are worthy of discussion in modern archaeology, the archaeology of destruction presented below is concerned directly with only one of these – the destruction of ancient settlements by human forces. More specifically, it is concerned with interpreting remains left by such forces as evidenced in the destruction levels preserved in many tell sites in the southern Levant (ancient Palestine). The potential utility of these remains for understanding the past is tested here by analyzing archaeological remains of late 8th century B.C.E. domestic space preserved in destruction deposits at Tel Halif, a small tell-type site in the northern Negev desert of southern Israel (see Fig. 1: pg. 23). An analysis of ceramics in these deposits and their spatial relationships to one another as well as to other associated artifacts helps determine domestic activities as understood through a comparative framework employing ethnographic and ethnoarchaeological data. A better understanding results of how this domestic material culture and domestic activity fit
together within the household and larger framework of society as a whole. Thus, the goal of this analysis, and therefore the dissertation, is to use the spatial data obtained from the destruction deposits at Tel Halif to shed light on the Iron II household's activities and organization and demonstrate how a greater understanding of these can lead to a more comprehensive view of the Iron II household and its role in society as a whole.

In pursuit of this goal, priority is given to the understanding of the archaeological record and determining what can be revealed about past human behaviors, activities, and events, and their organization when using archaeological remains. Under investigation is the direct relationship between structures, artifacts, and behavior and the problems of determining these through archaeological investigation. Problems of determination are addressed here with meticulously collected data deriving from an artifact-rich and well-preserved destruction stratum (Stratum VIB) from Tel Halif.

Tel Halif's Stratum VIB is comprised of the destroyed remains of a late Iron II (late 8th century B.C.E.) settlement best described as a small fortified country or rural town near the southwest border of territory that probably was included in the small kingdom of Judah (see Kletter, 1998). The data from Stratum VIB employed here were recovered from the western perimeter of the tell in an area designated Field IV by the Lahav Research Project during its Phase III excavations in 1992, 1993, and 1999 (see

---

1 This a third or fourth tier designation used by G.R.H. Wright in his hierarchical categories of settlements existent in Judah during the Iron II period (1985: 59). From largest to smallest (spatially) these include: 1) capitals (imperial or national); 2) fortified palaces; 3) regional government administrative centers; 4) frontier or rural cities or towns; 5) agricultural villages and 6) fortresses.
Borowski and Jacobs, 1992). Immediately below the modern ground surface, excavations unearthed the remains of well-preserved domestic structures buried beneath a deep accumulation of ashy debris (average of slightly less than a meter) resulting from falling and burning structures and consisting of mudbricks, stones, ash, charred wood, and numerous artifacts. Among the artifacts are many ceramic vessels, all fitting well, typologically, in the late 8th century B.C.E. The date of the material, along with the destruction debris, numerous iron arrowheads, and sling stones make a compelling case for Tel Halif suffering the same ill fate as many other Judean cities and towns at the hands of the invading Assyrians in 701 B.C.E. 1 With this destruction the settlement at Tel Halif came to an abrupt end and was buried beneath the burned debris of its collapsed structures. While numerous processes and some later occupations obliterated areas of the Iron II settlement, many of its remains in Field IV were not removed from the places where they rested immediately subsequent to the destruction of the settlement. Because Tel Halif was abandoned rapidly and the remains were not disturbed severely by later natural and cultural processes, the artifacts preserved in the Stratum VIB remains should provide excellent data for reconstructing domestic activities taking place in the unearthed structures of Field IV. This is what is tested using the data recovered from one particular Iron II pillared dwelling.

---

Through careful mapping, recovery, and analysis of the Field IV data, as well as the rigorous study of all sources introducing variability into the archaeological record, including ancient behaviors and formation processes in various contexts, a better sense is gained of the approaches that should be taken when dealing with data recovered from destruction strata as a subset of the archaeological record. Data gathered in such a meticulous manner can only lead to an increase in the power of the inferential strategies that give meaning to the things we excavate. In the dissertation, meaning is given the Tel Halif archaeological remains by a spatial analysis of all artifacts interpreted through comparative ethnographic and ethnoarchaeological frameworks and archaeometric techniques. When investigating archaeological remains of the Iron Age period of the southern Levant, the most common procedure for interpreting archaeological data usually is to compare them with data gleaned or obtained directly from biblical texts. Indeed, use of the term "Biblical Archaeology," which most commonly identified archaeological research in the southern Levant for all but its most recent history, bears this out (cf., Dever, 1985; Moorey, 1991; Silberman, 1989). Many scholars believe that biblical texts aid greatly our understanding of the social and political organization of Iron Age Syria-Palestine, especially concerning the kingdoms of Israel and Judah. However, a growing number of scholars now doubt that biblical texts reflect the period of the Iron Age at all. For this reason biblical data initially are eschewed in favor of ethnographic and

---

3 This is a point hotly contested and debated in a number of scholarly circles today. It will be addressed later in the dissertation (Chapter V).
ethnoarchaeological data for the reconstructions of Iron II society below. However, once the remains of Tel Halif have been interpreted and statements rendered regarding the social organization of its Iron II inhabitants, a comparison with general biblical reconstructions of Iron II society in the 8th century B.C.E. is carried out. Through this discussion it is hoped that, in addition to a better understanding of the domestic realm at Iron II Tel Halif, some synthesis can be achieved with respect to the usefulness of some biblical texts for socio-historical reconstructions of the Iron II southern Levant.

Toward these ends the dissertation is divided into five chapters that reflect the various avenues employed in the study of Tel Halif's domestic space and how its study leads to a more comprehensive view of Iron II society generally and the Iron II household specifically. Chapter I demonstrates the importance – the "why" – of studying domestic space as well as the "how" it is approached. The study of this space helps to identify and determine which activities took place where, how they were organized, and how these lead to a better understanding of the household. The household is discussed in its social, material, and behavioral elements and defined by the activities in which it partakes, including some combination of production, distribution, transmission, and reproduction. Important terminology such as household, the built environment, dwelling, house, co-resident group, domestic group, and activity areas is defined.

In addition, the unit of investigation, the archaeological household, is introduced, defined, and correlated to a definable unit found in the archaeological record of the 8th century B.C.E. southern Levant. This unit is referred to here as the "pillared dwelling." How the pillared dwelling is approached is the final topic discussed in this chapter. In
this discussion the activity area is introduced as the analytic unit employed to study domestic space and the spatial analysis is introduced as the analytic procedure employed for isolating and determining activity areas and the use of domestic space. Their history is reviewed briefly followed by a discussion of the “why” and the “how” they are adopted and adapted to identify the use of space in domestic areas preserved in Tel Halif’s VIB destruction stratum.

Chapter II also focuses on “why” and “how” issues. It begins by demonstrating “why” archaeological deposits in the southern Levant in general and Tel Halif in particular are useful for studying domestic space. It then focuses on “how” the archaeological record at Tel Halif, especially its ceramics preserved in a destroyed pillared dwelling, is approached through the spatial analysis outlined in Chapter I.

To address the “why” section of this discussion, a general review is undertaken of the archaeological data available for use in the present study. Since most data come from tell-type sites, tells are reviewed, including how they are formed and what is preserved in them. One of the most conspicuous features in tells is the destruction stratum. Destruction strata, as common phenomena in tell sites, especially dating to the Iron II period, yield excellently preserved archaeological remains in a primary context. They consequently are useful for reconstructions of the past. Remains from an Iron II destruction stratum at Tel Halif (Stratum VIB) are the primary data source utilized in the dissertation. For this reason destruction strata are discussed in detail, including their genesis, their continued formation, what exactly is preserved in them, and their general usefulness for understanding the past. Common in Iron II destruction strata are well-
preserved pillared dwellings, the primary dwelling type for the southern Levant during the Iron Age. A discussion of the pillared dwelling as it has been revealed archaeologically follows discussion of the destruction strata. This dwelling, as the locus of both domestic activities and the archaeological household, is focal to the research and is discussed in detail. Included in this discussion is its identification, description, origins, and subsequent spread throughout much of Iron Age Palestine (12th/11th - early 6th century B.C.E.). This is followed by a detailed examination of its various components and functions as understood largely through architectural-based inferences.

To address the "how" section of this discussion a review is included of how remains preserved in destruction strata of tell sites are used to interpret domestic space. While a number of data sources are discussed and used in the dissertation, ceramics are the primary data set employed to locate activity areas and identify the use of space at Tel Halif. Therefore, their processing and analysis is discussed in detail. Finally, based on the discussion of all of the elements in this chapter, including destruction strata, the pillared dwelling, and a spatial analysis of ceramics, a number of specific questions are posed which the data from Tel Halif, as discussed in the next chapter, are used to address.

Chapter III deals with the archaeological data from Tel Halif itself. Tel Halif as a site is discussed in depth, including its history, both geological and occupational, and its archaeological investigation. This introduction is followed by a detailed description of Tel Halif's destruction stratum, Stratum VIB, and how its remains are analyzed to reveal domestic activities. The primary focus of this section is the remains of one pillared dwelling revealed through excavation in 1992 and 1993. This includes especially the
ceramics from this dwelling and what their spatial location and relationship to other artifacts tells us about the use of space. While ceramics and their distribution in the dwelling are the primary focus of this study, both non-ceramic artifactual and architectural remains are important for understanding the overall use of domestic space. This understanding is attempted using a variety of analytical techniques including the study of formation processes, micro-grid mapping, microartifact analysis, residue analysis of ceramic vessels, and a spatial analysis (as outlined in Chapter II) that investigates the relationship of ceramics to one another as well as other movable artifacts and more permanent architectural and feature components. This study addresses the questions posed at the end of Chapter II and seeks to establish whether functionally distinct categories of ceramics can amplify or refine the architecture-based inferences suggested in Chapter II and the micro-artifact inferences suggested in this section. If so, what kind of resolution is possible when interpreting the way space was used and who used that space during the Iron II Period?

Chapter IV includes ethnographic and ethnoarchaeological information, both direct and indirect, to supplement and interpret the data provided in Chapter III by archaeological investigation of Tel Halif's Stratum VIB. Direct ethnographic observations of the social structure of rural Arab Palestinian villages from the late 19th and early-mid 20th centuries C.E. and ethnoarchaeological observations of village life in rural communities of Iran are used to understand links between material culture on the one hand and behaviors, activity areas, and social structure on the other. Indirect ethnographic data provides generalizations about social (particularly household)
organization for certain types of subsistence strategies and political organizations. The observations and data derived from the ethnographic and ethnoarchaeological investigations are used to interpret the materials excavated from the destruction stratum at Tel Halif discussed in Chapter III.

Chapter V compares the archaeological and ethnographic interpretations of Iron II domestic space and the social organization of the inhabitants of this space with information gleaned from biblical texts regarding dwelling construction, layout, function, and the social organization of the Iron II peoples of Judah. However, before this is undertaken a discussion of the use of biblical texts for historical reconstructions of ancient Israel and Judah addresses concerns raised recently by a number of biblical scholars with respect to the usefulness of biblical texts for historical reconstructions of Syria-Palestine during the Iron II period. Once these issues are addressed, a discussion follows of the biblically-based, three-part social structure of ancient Israel as understood in the “Folk Model” for the Iron I period developed by N. Gottwald (1979) and built upon later by L. Stager (1985). From this model, particular attention is given to the unit termed the bet 'av – often translated as an extended household. While the “Folk Model” was developed for the Iron I (12th-10th centuries B.C.E.), a period earlier than the one studied here (late 8th century B.C.E.), many scholars propose that a slowly changing but similar social structure continued into the Iron II (Blenkinsopp. 1997; Meyers. 1997; Stager, 1985; Wright. 1992). To address this supposition, the pertinent biblical textual information learned from this study is juxtaposed with that from ethnographic and ethnoarchaeological reconstructions of Iron II Halif discussed in Chapter IV. This
juxtaposition is useful in two ways. First, it determines how well the biblical data fit the 8th century B.C.E. archaeological record of Tel Halif as reconstructed through ethnographic and ethnoarchaeological analyses. This determines whether or not conciliation or resolution is necessary between these disparate and sometimes dialectical sources of data. Second, it ascertains whether or not changes in social structure from the Iron I to the Iron II hinted at in biblical texts can be observed using the archaeological data from Tel Halif. The archaeological record is particularly useful for the latter as it is well equipped for observing societal change through time. Regarding the former, if ethnographic and ethnoarchaeological reconstructions of Iron II society and biblical reconstructions demonstrate affinities, then this juxtaposition also helps to achieve a more comprehensive view of domestic activities, domestic dwellings, and the social organization of the inhabitants of 8th century B.C.E. Tel Halif. At the same time, perhaps greater insight can be gained into the usefulness of biblical texts for these kinds of reconstructions. But at the heart of the dissertation is the greater understanding of the household and the organization of domestic space of the 8th century inhabitants of Tel Halif and this brings us to the conclusion.

In concluding, the information from the five chapters outlined above is combined to render a detailed, synthetic reconstruction of the archaeological household and its associated pillared dwelling for 8th century B.C.E. Tel Halif. This includes as many facets as possible of domestic activities associated with production, distribution, transmission, and reproduction, and how these in turn reflect household organization. The dissertation concludes that the domestic unit that occupied the pillared dwelling or archaeological
household is indeed equivalent to the household as defined in the first chapter of the
dissertation. It also is demonstrated that the unit occupying the pillared dwelling as its
domestic realm in the 8th century B.C.E. is equivalent to the bet 'av known from the
biblical texts. These results demonstrate the usefulness of the approach taken by the
dissertation for understanding the Iron II household. The information learned from both
ethnographic and ethnoarchaeological data and the biblical texts, when combined with the
archaeological data, provide a very detailed and comprehensive reconstruction of the
organization of the Iron II household, the ultimate goal of the dissertation. Finally, it is
shown how investigation of the household leads to a better understanding of many other
aspects of society including political, economic, and social arenas outside of the
household. It thus serves as an important building block for reconstructing other higher
order aspects of past societies—something not appreciated always by scholars working in
Syria-Palestine. For this reason Chapter I is devoted to demonstrating the importance of
understanding the household as well as the way the dissertation approaches the
household.
Figure 1. Tel Halif
CHAPTER I

STUDYING THE HOUSEHOLD

The Importance of Household Study

The importance of household study has not been appreciated always by archaeologists. In the southern Levant, as well as the rest of the world, archaeologists often have been drawn to the flamboyant elites, investigating monumental constructions such as palatial and storage complexes, cultic complexes, cemeteries, and fortification systems. However, the more ordinary and humble domestic structures of the majority of the population, the most common remains in nearly all archaeological sites, increasingly have gained attention as scholars realized that, to fully understand ancient settlements, it was necessary that the structures where the majority of the population lived be investigated. In the last two decades, a number of edited volumes and monographs addressing the interpretation of domestic structures have appeared in the archaeological literature, embedded in research designs that attempt either to correlate archaeological remains with ethnographic and/or ethnoarchaeological analogues or identify and isolate material remains that can distinguish domestic space (e.g., Allison, 1999; Ashmore, 1981; Clarke, 1979, 1982; Kent, 1984, 1987, 1990; Kramer, 1979, 1982b; Netting et. al., 1984; Watson, 1979; Wilk and Ashmore, 1988; Wilk and Rathje, 1982). While these and similar studies increase our understanding of the ways domestic space is used and what it may tell us about social organization, they regrettably have only minimally impacted the archaeology of the southern Levant. In this geographical area, a number of studies have
focused on domestic structures, but their main foci have been demography (Shiloh, 1980; Rutledge, 1996) and descriptions of domestic architectural features (Bebee, 1968; Braemer, 1982; Shiloh, 1970; 1973, 1978; Holladay, 1992; Wright, 1985). However, a few exceptions exist, the most notable being the works of L. Stager (1985) and M. Daviau (1990; 1993).

Stager's seminal investigation of the Iron I family, as reflected in the location and organization of domestic structures in Iron I settlements, takes a multivariate approach to understanding the past by employing archaeological, ethnographic, ethnoarchaeological, biblical, and extra-biblical textual data to pose statements regarding social organization of the Iron I inhabitants of the Highlands of Palestine, particularly at the household/extended household level (Stager, 1985). Stager maintains that such a varied approach increases the strength of his inferences about household organization and most archaeologists would certainly agree that this is the case. Daviau, on the other hand, takes a more narrowly focused approach to understanding the household by concentrating on the identification of activities taking place in domestic contexts (Daviau, 1990; 1993). She undertakes a spatial analysis of hundreds of archaeological locus groups from the publications of various Palestinian sites dating to the 2nd millennium B.C.E. (Middle Bronze and Late Bronze Ages) in an attempt to identify activity areas in domestic contexts. Loci are identified functionally by their associated "toolkits" as reconstructed through iconographic data from contemporary Egyptian tomb paintings and from ethnoarchaeological data recovered in western Iran. While these two studies vary in the success with which they address their perspective issues (more on this later), they both
focus research on a better understanding of domestic space—Daviau on its use and identification, and Stager on how informative this space may be regarding societal organization at and above the domestic or household level.

As more such studies are undertaken in the Levant, our understanding improves of the ancient household in this geographical area throughout its history. Also, the usefulness of studies from this geographical area for addressing larger anthropological issues such as changing social organization through time is demonstrated. From this standpoint, Stager’s and Daviau’s research into the domestic realm of the Iron I and the 2nd millennium B.C.E. respectively, not only have increased our understanding of the domestic arena for those periods, by demonstrating how different types of social, economic, and political organization may be reflected in the domestic sphere and are inferable from the archaeological record, but they also have provided data that facilitate cross-temporal comparisons that lead to a better understanding of the processes of culture change. In this light, the dissertation seeks not only to understand better the household and society of the late Iron II period of the southern Levant but also to increase its usefulness for cross-temporal and cross-spatial comparison in the ongoing anthropological endeavor to better understand culture process and change. Similar studies from other areas in the ancient Near East have proven similarly useful (e.g., Meskell, 1998).

The dissertation, similar to Daviau’s work, seeks to identify activity areas in domestic contexts. However, it is different in a number of ways, not the least of which include the use of primary archaeological data and attempting to move beyond the
identification of activities by addressing household organization. It is also similar to Stager's work in attempting to understand social organization at the level of the household unit by employing ethnographic and textual data. As archaeologists, we use the material remains of past settlements to better understand the behaviors, activities, and organization of their inhabitants. The Tel Halif material remains are used to draw conclusions about the kinds of activities taking place in past domestic space as well as the kinds of activity groups that peopled the space. This is used to make direct contributions to understanding how the household may have functioned. Thus, the identification and understanding of domestic activities and the identification of the loci where they took

While this approach is similar to Daviau's in attempting to understand and identify activity areas in domestic contexts, it differs substantially in its methodological approach. To date, Daviau's research is the only explicitly spatial approach taken to understand domestic space in the southern Levant. Her work includes some positive features such as her important and exhaustive re-working of a large corpus of 2nd Millennium B.C.E. locus groups and her demonstration of the usefulness of ethnographic and iconographic resources. However, there also are numerous problems with her spatial analysis. Some of these she points out herself, including incomplete recovery of household units due to limited exposure (1990: 80-81; 198), a lack of explicit quantification in the selection processes for publication (1990: 25), and, by modern standards, poor excavation and publication of much of the material she employed (1990: 25-26). I would additionally point out the presence in her work of what Ascher (1968), Binford (1981), and Schiffer (1983) have referred to as a "Pompeii premise." This refers to the assumption that archaeological data accurately reflect past human behaviors fossilized in the archaeological record without care of the processes that actively alter their context from the time they first enter the archaeological record. Additionally, there are problems inherent in her activity area categories (what she terms "functional paradigms"). Daviau attempts to create hard/static categories of artifacts to identify the dynamic processes of household activities. These problems are undoubtedly reflected in her low success rates in matching similarity coefficients for her categories. In some 1521 analyzed locus groups, only 84 (or 5.5%) are compared successfully with her functional paradigms. In the end, Daviau is able to demonstrate little more than people stored things and prepared and consumed food in domestic areas.
place are paramount for understanding better the household in general and the Iron II household specifically. And an understanding of households can be particularly beneficial for understanding larger organization spheres in society.

**The Usefulness of Studying Households and Domestic Space**

A better understanding of the organization of the household at Tel Halif during the 8th century B.C.E. has the potential for adding greatly to our understanding of society in the southern Levant during the same period. After all, the household is the particular environment in which individuals are made aware of their culture's rules. It embodies and underlies the organization of a society at its most basic level (Wilk and Ashmore, 1988: 1) and can be viewed as a culture in microcosm where few, if any aspects of its activities, behavior, or thought are at odds with those of the greater society (Deetz, 1982:724). Households can therefore serve as very sensitive indicators of many facets of social organization. They can be very telling about social stratification and the material conditions of life for the majority of a population (Rathje and McGuire, 1982: 707). When well understood, the household can become a higher analytic unit used to reconstruct more complex societal organizations and identify interesting behavioral processes (Reid and Whittlesey, 1982: 696).

"It might simply be the case that the household, family, or any social unit of similar size is a suitable vehicle for the examination of the relations between physical and mental worlds, and since families and households are the commonest, they are potentially the most productive source. Their suitability is a function of their size, small enough in scale to permit efficient and dependable study, and of their universality and availability, which at least somewhat mitigates problems of sampling" (Deetz, 1982:
Better understanding of the household, therefore, has the potential for adding greatly to our understanding of society in the southern Levant during the Iron II period. But, before this is demonstrated, exactly what is meant by household must be defined as well as what in the archaeological record of the Iron II southern Levant serves as an analytical unit for investigating the household.

Defining the Household

Household, as used in the dissertation, is a culturally defined, task-oriented domestic unit (Carter and Marrill, 1979) that is usually co-resident, but not always, (Horne, 1982; Kramer, 1982: 673; Laslett, 1972: 1; Netting et. al., 1984: xxvi-xxviii), and is composed of three elements: (1) the social, (2) the material, and (3) the behavioral. The social unit, or the demographic unit, identifies the number of members and the members' relationships (extended or nuclear) (Laslett, 1972: 28-34; see also Hammel and Laslett, 1974), and may include visitors, captives, servants, apprentices, laborers, lodgers, and boarders in addition to blood relatives and adopted members as occupants of its bounded residential space (Netting, 1982: 642-3; Kramer, 1982a: 666). The material unit includes the dwelling, activity areas, and possessions. The behavioral unit includes the activities in which the household engages (Wilk and Rathje, 1982: 618), including some combination of production, distribution, transmission, and reproduction (Wilk and Netting: 1984). One of the main foci of the dissertation is to elucidate the household in the Iron II southern Levant by clarifying as many facets as possible of the three elements
- social, material, and behavioral – as discussed here.

But archaeologists do not excavate households themselves. As culturally defined, task-oriented units, households are not directly observable in the archaeological record. Such intangibles as kinship and affinity (the social element) do not exist as entities to be exposed through excavation. For this reason, the basis for understanding the household is the identification of the tasks or activities it performed – what households do (so Wilk and Netting, 1984). While activities (the behavioral element) are no more observable directly in the archaeological record than concepts such as kinship and affinity, residual remains produced in the execution of household activities (the material elements of the household) are preserved in the archaeological record as are other features necessary for their performance. Patterns discerned in these remains can be associated with specific activities and can therefore be used to infer which activities took place where and, possibly, by whom these activities were carried out. Understanding the patterning of activities as opposed to single-activity reconstructions is what archaeologists can best strive to do (Binford, 1987; Rapoport, 1990: 9).

Once certain patterns of material culture remains are identified as indicative of specific activities, we can begin to use these activities to better understand household function and organization. Thus, the material element is utilized here to ferret out the activities performed in domestic space, including what those activities were and who carried them out, thereby producing a better and more comprehensive understanding of the behavioral and cultural elements of the household. As mentioned, household activities fall into four categories: production, distribution, transmission, and
reproduction, and since some combination of these activities is part and parcel of all households, a better understanding is necessary of what each of these entails and what each can tell us regarding household organization.

Production

Activities associated with production serve to procure resources or increase their value, and their organization is adapted to the specific labor requirements of particular tasks (Wilk and Rathje, 1982: 622; Netting, 1984: 6-7). Production activities almost always include housekeeping, food processing, and other kinds of "domestic labor" (Berk and Berk, 1979), but otherwise may vary greatly in their scale and scope. Variation in production can be telling about household organization especially as it relates to the scheduling of productive labor. Scheduling refers to the absolute timing and sequencing of tasks associated with production, varying from times when the demand for labor is very great, requiring large numbers of individuals, and times when the demand may be absolutely minimal, only requiring the efforts of a single person. Variability in scheduling is related to this demand and can be scaled in between the extremes of linear and complex: with complex including both simple complex and simultaneous complex scheduling (Wilk and Rathje: 1982: 622). Linear labor can be done by one individual performing a series of tasks whereas simultaneous labor must be carried out by a group of people performing tasks at the same time. Tasks included in simultaneous labor may be the same (simple simultaneous) or different (complex simultaneous). The relative efficiency of different size groups to the necessary productive tasks determines the type of
scheduling employed as well as the size and the organization of the household. That certain types of household organization are more efficient for certain types of production is ethnographically supported (see, e.g., Goody, 1972: 115, 117; Netting, 1969; 1984; Pasternak et. al., 1976). For example, the need for task simultaneity throughout the year produces larger households (Netting, 1984: 7; see e.g. Befu, 1968). But where task simultaneity is necessary only for short periods throughout the year and linear scheduling can accomplish most of the necessary production tasks throughout the rest of the year, small, nuclear families are favored. These may come together to form larger groups during the few times necessary throughout the year (Wilk, 1981). Once production tasks reach a size requiring very large simultaneous and complex tasks, organization can become a problem and at this point households may no longer be the most efficient producing unit. In such cases, production may fall to organizations outside of the household sphere. The importance/influence of the role played by production in household organization varies and can cause households to increase their size, come together, or fragment based on the household's needs on a regular basis. Therefore, understanding of the mode of production can be telling about household organization.

**Distribution**

Activities associated with distribution include the process of moving resources from producers to consumers and here include consumption (Wilk and Rathje, 1982: 624-5). Distribution as defined above is useful as it focuses on exchanges and transactions between and within households which can be ignored if production is merely opposed
with consumption (Netting, 1984: 9). The mode of distribution generally is subdivided between pooling and exchange and is often linked to the mode of production. Pooling refers to the process of distribution within the household created through generalized reciprocity. Exchange identifies distribution between households or larger corporate groups created through the practice of balanced reciprocity. Distribution may consist entirely of pooling within the household or may include both pooling and exchange and vary systematically with the mode of subsistence and production. Small households are common when production within a society is uniform among members, precluding any advantage of pooling, or when production between individuals differs so extensively that pooling benefits only some household members while being a detriment to others (Wilk and Rathje, 1982: 625). Larger households employing pooling generally is an effective strategy when sources of income are diverse, seasonal, variable, or unpredictable (Netting, 1984: 9). Large households that pool in production and in distribution tend to be stable and have generational continuity and, if pooling of a limited range of goods among a large group is necessary, organizations other than households are likely to emerge to fill this function (Wilk and Rathje, 1982: 626). Households that only cooperate in the scheduling of labor or in pooling for distribution tend to be less stable and fragment often (Netting, 1984: 10). In general, band and state-level, urban societies stress exchange between households and groups while predominantly agricultural societies and those with mixed economics pool within the household (Wilk and Rathje, 1982: 627). Also, generally, the more spatially clustered and the more temporally varied the resources, the larger the households that manage them (Wilk and Rathje, 1982: 632).
Transmission

Transmission is a special form of distribution that involves the transfer of rights, roles, land, and property between generations. Land and property is transmitted through two basic modes: one partible, the other impartible (Goody, 1972; 1976). Partible transmission divides property (usually evenly) among heirs whereas impartible transmission leaves the bulk of an estate/inheritance in the hands of one heir. The mode of transmission practiced is dependant largely on the labor/land relationship, especially the relative scarcity of one to the other as it relates to agricultural intensification (Netting, 1969). A consequence of agricultural intensification is increased difficulty of gaining property and a more strictly defined group controlling access to this resource (Wilk and Rathje, 1982: 627). As control narrows it ultimately becomes vested in individual households or their members. It is at this point that households become the most important means of transmission within a society. Transmission can dramatically affect the structure of a household. Strong cross-cultural relationships between the scarcity of land and extended household structures have been demonstrated (Goldschmidt and Kenkel, 1971). Extended patrilocal household clusters form as land comes under increasing population pressure (Collier, 1976), at least to a point. When land becomes too scarce to support the larger unit, the extended unit breaks up (Wilk and Rathje, 1982: 628). Thus, the nuclear family may be the most frequent adaptation where agricultural resources are barely adequate to support a family or where estates are fragmented and recombined in each generation through partible inheritance. This breakdown from larger to small households suggests a strong correlation between household size and

Transmission can dramatically affect the makeup of a household as marriage becomes a strategy for transmitting and accumulating property and comes under control of parental authority (Lofgren, 1974). This is most often the case when property inheritance is impartible. The advent of impartible inheritance often coincides with the beginnings of a landless class and is one avenue toward social stratification (Lofgren, 1974; Netting, 1984; Wilk and Rathje, 1982: 629). Such detached landless or propertyless persons can form the base of urban society and fill niches such as craft production, soldiering, wage labor, trading, and candidates for cultic activities. These persons also may remain non-urban, filling niches such as migratory labor. The presence/absence of such individuals can be telling about the mode of transmission practiced in a society.

Reproduction

The last category of household activity, reproduction, is the least flexible of household functions and consists of the propagation of household members and the rearing and socialization of children. This process is absolutely necessary for household survival, for it not only supplies heirs to transmittable property but it also provides the environment and the means necessary for the care, feeding, education, socialization, training, and otherwise preparation of individuals for effective participation in society. Constant time, energy, and effort are necessary for these endeavors, thus the household
must be organized in such a way to provide this care. Two factors important in this organization are: 1) the importance of women's roles in activities outside of reproduction (Wilk and Rathje, 1982: 630; Netting, 1984: 14), and 2) the economic value of children (Nag et al., 1978). Where women play significant roles in activities not associated with reproduction (e.g., production of tradable goods, agricultural goods and goods associated with subsistence) households are organized in ways that allow the majority of women to continue to participate in extra-production activities. For example, in state-level societies, where nuclear family households predominate, schools and other government and social welfare institutions take over part of the burden of child care, freeing women's labor. In other societies larger households can pool child rearing duties allowing women to continue to participate in extra-reproduction activities. Alternately, strategies not requiring the pooling of these duties may be adopted, including fosterage, child caring, and adoption (Brown, 1970; Carroll, 1970). Other strategies which positively affect women's participation in extra-production activities place constraints on family size by reducing the number of children needing care. These include increased time between births, later age of marriage, and the occurrence of celibates, among others.

The importance of the conflict between reproduction and extra-reproduction activities is not as great when children's net economic contribution exceeds their costs at an early age. Once children reach a certain age, they provide a valuable source of labor. Therefore the time and effort invested in offspring may later increase the household labor pool necessary for activities associated with production and distribution as well as providing care and services for aged members of households once they become physically
dependent (Netting, 1984: 15). In situations where this is seen as a positive, households’ efforts to increase, restore, or substitute for fertility may be present. These may include early marriage, decreased time between pregnancies, divorce for sterility (Reyna, 1977), polygamy (Netting, 1969), and rapid remarriage for widowed men and women. Thus explicit marriage rules and marriage preferences influenced by cultural norms, as well as other family expansion or limitation practices, all shape reproduction. Consequently, reproduction influences overall family demography and household morphology.

Activities associated with production, distribution, transmission, and reproduction heavily influence household size and form and consequently are telling about household form and function. While archaeology cannot address all of these activities equally well, it must strive to identify and understand as many activities and as many facets of these activities as possible. Through archaeology, this understanding must come through the analysis of the material remains preserved in the archaeological record – those remains produced in the performance of behaviors and activities and left behind in domestic space. However, before using the archaeological remains of domestic space for interpreting the activities performed by ancient households several important steps are necessary. These include the identification of the domestic space’s form, determining the relationship of this form to the household as defined above, and, finally, determining how the household used its space.

**Identifying the Form of Domestic Space**

Determining the form of domestic space in the archaeological record requires the
identification of the material elements of domestic space and discerning where in sites these elements occur. The domestic space occupied by a household is often identified by the architectural unit which bounds, and to some degree structures, the space where domestic activities regularly are carried out by household members. This space often is termed the household's built environment and consists of the organized temporal relationships between architectural resources, spaces, features, artifacts, animals, and peoples (Clarke, 1979: 460-464; Rapoport, 1980: 291-296). It is the locus where many household activities, but not all, are regularly carried out and the physical manifestation or built environment of the inhabitants which occupy its space. Also it is the environment where the inhabitants' cultural choices frequently become expressed in material form, often covertly (cf. Deetz, 1982; Glassie, 1975; Leone, 1982; Rapoport, 1990: 9-10). This built environment, as architecture, ultimately constitutes "a logical pattern of entities and relationships built around activities" (Martin, 1971: 6), and has bounded space (Kent, 1990: 3). The organization and form of this bounded space is heavily influenced by human behavior and conversely human behavior is influenced by the built environment (Altman, 1975; Rapoport, 1980; Sanders, 1990).

In addition to human behaviors, a number of additional factors can influence the organization, form, and function of domestic space and its placement in the community. Based on the work of others, Sanders discerns seven factors influencing the form and function of the built environment including climate, topography, available materials, level of technology, available economic resources, function, and cultural conventions (Sanders, 1990: 44; cf. Altman and Chemers, 1980: 156; McGuire and Schiffer, 1983; Netting,
Sanders groups these factors into three categories: naturally fixed, culturally fixed, and flexible (1990: 44).

Naturally fixed factors, which include climate and topography, are fixed by natural conditions at the outset of construction and exert a noticeable influence on the outcome of the form of the built environment (Rapoport, 1969: 18-45; Oliver, 1987: 113-127). Culturally fixed factors include function and cultural conventions and, similarly to naturally fixed factors, are fixed at the outset of construction of the built environment (Sanders, 1990: 44). The remaining factors—available materials, level of technology, and economic resources—all are flexible since their degree of influence over the construction of the built environment will vary greatly even given constant climatic and topographical conditions (Sanders, 1990: 44). Sander’s further points out that, while materials, technology, and resources often depend on natural resources, their manipulation depends on cultural factors (1990: 44). The better the understanding archaeologists have of the influences exhibited by these factors, the better will be our ability to identify domestic space and the built environment in the archaeological record.

While topography generally is fixed naturally, a case can be made here for it being fixed culturally. The cultural remains under investigation in the dissertation lie near the modern ground surface of a tell site consisting of the cultural remains of occupations extending over several millennia superimposed on top of one another forming a mound ten meters in height, thus radically altering the natural topography. As such, they provide a “culturally-derived foundation” for dwelling construction. However, sites are chosen primarily for their relationship to water, arable land, and defense. Thus the natural topography heavily influences the construction.
It is imperative that we as archaeologists be able to identify this domestic space and differentiate it from other types of space used outside the household's sphere (i.e. administrative, public, etc.).

Archaeologists employ many methods to identify and isolate domestic space and the built environment in the archaeological record. Early attempts included the application of the "principle of abundance," where the architectural category with the large majority of structures within a town or community represents domestic structures (e.g., Haviland, 1966; Willey et al., 1965). This principle seems to hold true cross culturally (Leventhal and Baxter, 1988: 52). Other common methods incorporate the analysis of the architectural layout of buildings (Wauchope, 1934: 1938; Smith, 1962: 217-218). These include analysis of the quality of construction of architecture (Leventhal and Baxter, 1988: 58-59; Rosen, 1986), determining structure size (Leventhal and Baxter, 1988: 59), associating the dwelling with a delineated cooking area within a complex of rooms (Gnivecki, 1987: 186; cf. Kramer, 1982a: 669-670), identifying a delineated living room (Horne, 1982: 685; Kramer, 1982a: 668; Reid and Whittlesey, 1982: 69), isolating rooms oriented toward an enclosed or otherwise isolated courtyard, plaza, or outside space (Horne, 1982: 678; Leventhal, 1983), isolating bounded space by analysis of circulation patterns within and among buildings (Kramer, 1982a: 671) and identifying structural and artifactual redundancies (Kramer, 1982a: 673). Artifacts excavated from structures also have been used to identify dwellings. Statistical analyses (e.g., cluster or discriminate, multivariate) have been applied to artifacts discovered in structures and functionally correlated with activities taking place within domestic contexts (Haviland,
While all of these methods are useful for studying the domestic structure, it still can be an elusive entity in the archaeological record. An understanding of the domestic structure can be complicated by its often makeshift and continually changing nature necessitated by the need to suit its residents who also are in a constant state of flux (see Goody, 1958). A great deal of variability in the spatial organization of patterns of circulation, artifacts, features, and activities within an architectural setting may further complicate its understanding.

However, difficulties identifying domestic space are not true generally of the domestic structures of the Iron Age southern Levant. When intra-site, extra-site, and regional comparisons of these domestic structures are undertaken, they display astonishing isomorphism – normally, in fact almost exclusively, comprised of a rectangular or rectilinear compound with a broad, narrow room or rooms set across its rear and either two or three long narrow rooms extending perpendicularly through the remaining space (cf. Wright, 1985; Albright, 1943: 49-50 – see Figs. 3 and 4 in Ch. III). These long rooms are characteristically separated by a row of three to four pillars and entrance to the compound usually is gained through one of them (a more complete description of these structures is provided in Chapter II). These structures long have been identified intuitively as the built environment encompassing domestic space; however, use of any or all of the techniques identified above for discerning domestic space confirm this intuitive identification. As stated in the introduction, these domestic structures most often have been referred to as Israelite houses, Palestinian dwellings, or three-room or
four-room houses. Here they are simply termed pillared dwellings, referring to their most characteristic and commonest features – the rows of ubiquitous pillars separating the long rooms. This term more accurately and less problematically identifies the typical domestic structure of the Iron II period than terms that tie the dwelling to problematic ethnic associations (i.e. Israelite), to geographical distributions that change constantly with new archaeological data (i.e. Palestinian dwelling), or to terms that include only half of these structures (i.e. three-room or four-room houses). As to the inhabitants of the pillared dwelling, it is possible they represent a nuclear family or small extended family; however, discerning this is one of the main foci of the research conducted and presented here. Until this is determined the occupants of the pillared dwelling accurately can be described and defined as a co-residence group.

To define the co-residence group as well as several terms associated with it, including “dwelling” and “house,” the dissertation follows Ashmore and Wilk in their use of these terms for their analysis of households and communities in ancient Mesoamerica (Ashmore and Wilk, 1988). A co-residence group is defined as a social unit consisting of the people who regularly share living quarters and may or may not be equivalent to a household or a nuclear or extended family (Ashmore and Wilk, 1988: 6). The co-residence group may live in the same building without sharing in the activities that identify the household – what Laslett terms the “houseful” (1972). As a group it can contain more than one household or only parts of larger households. The co-residence group is useful as an analytical unit that provisionally can be identified archaeologically on the basis of evidence that some kind of residential or domestic activities took place.
within the structure where it resides (Ashmore and Wilk, 1988: 6). The structure where the co-resident group resides is identified as a “dwelling.”

The dwelling is defined as a physical structure or area within which domestic activities take place. It is the physical setting of the activities of consumption, reproduction, and others included in the domestic sphere (Ashmore and Wilk, 1988: 6). Dwelling is deliberately used in the term “pillared dwelling” above to avoid equating this building directly with a single household. The space which is occupied by a household is identified using the term “house,” thus differentiating it from the “dwelling.” House is defined here as the physical setting, or the domestic space, occupied by the household. Distinguishing between house and dwelling allows more accuracy when dealing with the ancient inhabitants of domestic space and their organization within this space by providing a vocabulary that distinguishes what is observed (a building, a dwelling) from what is inferred (a house, a household). Also, using the co-residence group together with the dwelling provides an important analytical tool for archaeologists trying to understand past households. Since dwellings can be isolated and identified through archaeological investigation, they provide the logical frame, the analytical unit, for archaeological analysis of the household. However, the problem of moving from this unit, the dwelling occupied by a co-residence group, to the household still remains.

The Relationship of Domestic Space to the Household

Once the form and the location of domestic space is determined it is necessary to ascertain the relationship of this space and its co-residence group to the household unit as
functionally defined above; or put another way, it is necessary to learn what in the archaeological record constitutes the material elements of the household. This is a problem not easily addressed, for moving from the dwelling and the co-resident group on the one hand, to the house and the household on the other, is a difficult one. Households and the occupants of domestic structures or dwellings (co-residence groups) may be equivalent, but they just as well may not. Households can be dispersed among a number of dwellings (see. e.g.. Horne, 1982; Smith, 1962) as well as co-resident and, conversely, a number of households may occupy a single dwelling (Goody, 1972; Coupland and Banning, 1996). Also co-residents living in a dwelling may be members of more than one household. These various combinations make difficult the ability of the archaeologist to address what in the archaeological record reflects the ancient household. So, if the household is to be used as an analytic unit, it must first be defined empirically, after protracted study (Ashmore and Wilk, 1988: 6). Until such study is carried out for households of the Iron Age southern Levant, it is necessary to develop or select material correlates and/or principles based on the archaeologically identifiable built environment to define an “archaeological household.” The archaeological household is used here to study the household of the past. As a concept, it is similar to Winter’s “household cluster” (1976: 25), and similarly beneficial for organizing and comparing data for reconstructing and defining ancient households.

Winter used the concept of the “household cluster” to organize and analyze Formative period household data from the Valley of Oaxaca in Mexico (Winter, 1976: 25: cf. Flannery, 1976: 16). There, three kinds of facilities, including houses (herein
identified as "dwellings"), bell-shaped storage pits, and graves, consistently occurred in spatial concentrations separated by open areas. These in addition to other types of pits, ovens, and/or midden deposits were defined as household clusters and considered by Winter to be the physical manifestation of prehistoric households. However, he stressed the difference between the "household cluster" and "households." While a household consisted of a group of people who interacted and performed certain activities, a household cluster consisted of archaeological remains. These remains can be studied to reconstruct the composition of prehistoric households and the activities carried out by household members. Thus, the "household cluster" concept provides a context in which features can be understood as part of a larger unit and representative of a specific segment of society. This seems a productive means of organizing data for study on an analytic level between the house or the activity area and the community (Winter, 1976: 25).

Because it is useful for organizing and comparing data, the household cluster concept is incorporated into the analytic unit of the "archaeological household."

**Defining the Archaeological Household**

The concept of the "archaeological household" is employed here as a unit to investigate the Iron II household and help to define it empirically. It is used heuristically, as a unit combining spatial propinquity or co-residence with dwelling and some elements of the household, thus providing a unit of investigation useful to the archaeologist (so Goody, 1973: 59 and Winter, 1976: cf. Gniecki, 1987: 190). Similar to Winter's "household cluster" concept, the archaeological household is useful because it provides a
context for analysis of a specific segment of society that can shed light on the household. In this case the context is the pillared dwelling and its associated artifacts, faunal, and floral remains left by individuals performing activities in its space. But the archaeological household is different from Winter’s household cluster because it includes additionally the segment of society which is inferred to have occupied its space. Thus, the archaeological household in addition to being defined by archaeological remains also is coterminal with a co-residential group which actively participated in domestic activities in the dwelling. While a household, as defined in the dissertation, consists of a group of people who interact and perform domestic activities, the archaeological household consists of a similar group of people and their archaeological remain, in this case the pillared dwelling and its associated artifacts, faunal, and floral remains left by individuals performing domestic activities. However, its equivalence to the Iron II household which also performs domestic activities must be determined and not simply assumed. By combining the pillared dwelling and the individuals who regularly occupied its space and participated in domestic activities while there, the archaeological household is suited well to archaeological study and can be examined profitably as an elemental unit in studying the use of space to infer the general social, economic, and political organization of the inhabitants of pillared dwellings at Iron II Tel Halif. More specifically, through analysis of the archaeological household, attempts are made to reconstruct the composition of Iron II households, including their members and their organization. Archaeologically, the best way to realize these goals then is to investigate and identify the activities that were performed and their location in the space of the
pillared dwelling and then infer how the members of the archaeological household organized their space and how this co-resident group relates to the Iron II household. This begins with the investigation and identification of activities.

**Domestic Space and Activity Areas**

Understanding the ways domestic space was used and identifying the activities that occurred in the pillared dwellings of the Iron II southern Levant are focuses of this research. These foci are consistent with the investigation of the household since the household largely is defined here by functional characteristics associated with what it does. If archaeologists can draw conclusions about what kinds of activities took place in past dwellings, where those activities were carried out (in the pillared dwelling), and what kinds of activity groups performed them, then they can make direct contributions to understanding the organization of ancient households and society in general. This comes from the recognition that social relations are generated and patterned by socially constituted activities (Ashmore and Wilk. 1988: 5). Thus, the emphasis on understanding activities and who performed them where is useful for archeologists attempting to understand past households. It has become so useful in fact that the interest in activity area research has steadily increased over the last several decades.

Interest in activity areas can trace its beginnings to cultural ecology via settlement archaeology and perhaps a little more indirectly to Taylor's conjunctive approach to archaeology (Taylor, 1948). In the Americas cultural ecology played a primary role in the development of settlement archaeology as humans were seen to interact spatially.
economically, and socially within the environmental matrix into which they adaptively networked (see e.g. Butzer, 1982: Chapters 1 and 12). However, ecological adaptation as the sole determinant for human behavior (a la Steward, 1937; 1953) was quickly jettisoned as more functional interpretations of prehistoric social organization appeared. These include in addition to ecological determinants, the level of technology and various social and cultural institutions and factors (see especially Willey, 1953: 1). To understand prehistoric social organization, settlement archaeology studied the distribution of traceable human activities across the landscape viewing sites, not in a vacuum, but as single elements in a much larger functional network (e.g., Adams, 1965; 1981; Adams and Nissen, 1971; Braidwood, 1974; Chang, 1963; Willey, 1953; 1974). Individual sites were seen to play different and complementary roles in this network just as individual areas in sites were seen to play different and complementary roles inside a site. Increasing interest arose in areas of sites outside of monumental buildings and tombs. As scholars began to excavate areas of sites that did not consist of monumental architecture it quickly became apparent that companion studies of the areas where most of the population lived would be necessary before the total community could be understood. Under general systems theory approaches archaeologists became aware of the complex organization of each individual site and individual areas in sites. They began to speak of activity areas and how these articulated themselves into different sized sites or areas serving different functions (Ashmore and Wilk, 1988: 7; cf. Binford, 1964; Clarke, 1972, 1977; Rouse, 1972; Streuver, 1971; Whallon, 1973). This is where Taylor’s conjunctive approach had its greatest impact as it called for more attention to context and affinities.
and ushered in great concern for the discovery of artifact patterns related to functional factors (Taylor, 1948). Increased attention to artifact distributions and functional qualities, in addition to traditional style studies, led to better understandings of the way space was used across areas as small as parts of rooms and courtyards and as large as settlements grouped across a geographical landscape.

Hierarchical sets of patterns at different scales usually were involved in the works cited in the paragraph above (either explicitly or implicitly). These commonly involved three tiers: single structures, site layouts, and intrasite distributions (Ashmore and Wilk, 1988: 7; cf Ashmore, 1981; Clarke, 1977; Trigger, 1967, 1968; Tringham, 1972). Beneath the first two tiers of hierarchical patterns, household archaeology began to emerge as analytical units were re-examined and concerted efforts were made to make such units more behaviorally meaningful (Ashmore and Wilk, 1988: 7). To address behavioral and processual questions posed by a now more anthropologically oriented archaeology, spatially dispersed units such as households from a wide variety and number of geographical places and societies were compared. Social issues such as universals in household organization, population size and density, social complexity, and the processes which guided their change were sought (Adams, 1966). Attributes studied had to be pertinent to the anthropological questions posed, and characteristics such as use-wear traces, functionally related forms, and source studies began to appear alongside the more traditional style/typological studies (Rathje and Schiffer, 1982: Chapter 4). Also, to answer these more anthropological questions, archaeologists turned to ethnoarchaeology and an approach seeking formally and functionally definable types of households that

Houses and households became the focus to both of these approaches as they were seen largely as the most elemental building block of society. As variation between houses and households became more apparent in archaeological, ethnographical, and ethnoarchaeological research, understanding the location of activity areas and the systems in which they functioned became pivotal, especially as more inferences were made of past behavioral systems at the activity level. As these units became pivotal for archaeologists, more discussions began to include the location and use of activity areas especially in ethnoarchaeological circles (e.g. Binford, 1978a; Bonnichsen, 1973; Newell, 1987; Portnoy, 1981; Yellen, 1977; also those outlined earlier in the discussion of activity areas). These studies provided useful companion studies for archaeologists who were attempting to use unearthed archaeological remains to understand activity areas and the organization spheres in which they functioned in the past, particularly at the level of the household. Of course, assumed in this is that past actors and activities can be identified and reconstructed from remains left in the archaeological record – that the static physical objects we excavate from the ground can be used to understand the living dynamic heritages to which they relate (Brugge, 1980: 3).

Implicit in archeological investigation, and therefore the archaeological analysis of activity areas, is that the archaeological record is the product of a cultural system that is symptomatic of the past (Binford, 1980: 5), and through its study, knowledge and understanding are gained of past societies and their organization. Assumed is that behavioral elements of socio-cultural systems have material correlates that become
incorporated into the archaeological record and, when excavated, may be used to develop inferences about the behaviors with which they are associated (Kramer, 1979: 1). These inferences often are based on analogy (see, in general, Ascher, 1961; Binford, 1967: 1972; Chang, 1967; Clarke, 1977; Wylie, 1985). Knowledge and understanding of these material correlates come from study of their form, style, and manufacturing techniques. Understanding also can come from the analysis of the vertical and horizontal distribution of artifacts in archaeological deposits.

The study of activity areas is possible because the vertical and horizontal distribution of archaeological remains is patterned by human behavior and cultural activity in addition to other sources (e.g., formation processes in various contexts, but more on this below). Thus, through archaeological investigation, patterns can be identified which allow past activity areas to be delimited and identified. This is achieved by plotting tool types or other artifacts against precise provenience with respect to ground matrix, architectural features or each other (Watson, LeBlanc, and Redman, 1971: 117). That is to say, the horizontal distributions of cultural debris and features from geologically undisturbed contexts can indicate activities performed at given locations (see Binford, 1966: 19; Schiffer, 1976, 1985, 1987). Therefore, the location and identification of activities such as butchering, food preparation and consumption, sleeping, tool making, ritual activity, and animal husbandry to name a few, can be inferred based on the identification of patterns of specific types and occurrences of material remains, given an understanding of formation processes. These remains may include objects or tools that were used in the execution of activities or the debris produced in their performance and
left in the place(s) where the activity occurred. As has been pointed out by S. Kent (1984), a number of assumptions are implicit in most analyses of activity areas. In addition to the belief that activity areas can be discerned in the archaeological record is the belief that many activity areas are mono-functional and gender and/or sex specific (Kent, 1984: 2). Corollaries of these assumptions are: 1) that artifacts and other remains are abandoned at the location where they were used; 2) that refuse abandoned at an activity area can be used to identify the activities performed there; and 3) that males and females do not regularly perform the same tasks and consequently do not use the same activity areas (Kent, 1984: 2). While Kent has discussed these as assumptions, a number of studies, both ethnographic and archaeological, have been undertaken that address these issues specifically.

A number of ethnographic and ethnoarchaeological studies have gathered the kind of data necessary for accessing the usefulness of archaeological data in determining aspects of past societies (e.g. Adams, 1976; Ascher, 1962; Binford, 1978a, 1978b; Crystal, 1974; Gould, 1974, 1978a, 1978b; Kent, 1984, 1987; Kramer, 1979; Matson, 1974; Newell, 1987; Oswalt, 1967, 1978; Roberts, 1965; Stiles, 1977; D.E. Thompson, 1974; Watson, 1979; Yellen, 1977a, 1977b). In addition to these, a number of ethnoarchaeological studies have researched the location and use of activity areas to determine whether etic notions regarding the use of space are accurate or even useful when attempting to reconstruct past activities (e.g. Binford, 1978a; Bonnichsen, 1973; Kent, 1984, 1987; Newell, 1987; Portnoy, 1981; Yellen, 1977b). The archaeological literature on this subject also is abundant (e.g. Anderson, 1974; Blake, 1976; Breternitz,
1982; Brugge, 1980; Hammack, 1969a, 1969b; Kent, 1984; Newell, 1987; Schiffer, 1976; Watson, LeBlanc, and Redman, 1971). Related to these studies are ethnographic and archaeological researches undertaken to study female/male use of space (e.g. Agenbroad, 1978; Bourdieu, 1973; Flannery and Winter, 1976; Kent, 1984; Yellen 1977b). Before continuing this discussion of ethnographic and ethnoarchaeological verification of archaeological inferences the contribution of feminist and other gender studies to the understanding of these same issues is reviewed.

In the past two decades, feminism has inspired a good deal of gender-informed research in archaeological circles (e.g., Conkey and Spector, 1984; Conkey and Tringham, 1995; Fagan, 1992; Whelan, 1991a, 1991b; Wylie, 1992). The impact of this research on the field of archaeology has been reviewed in a number of works (Classen, 1992; Conkey, 1993; Conkey and Gero, 1991; Hill, 1998, Nelson, 1997; Wylie, 1991, 1993). Areas in which this impact has been greatest include our increased awareness of the androcentric abuses of earlier research and our increased awareness of gender as an organizing principle in research (Hill, 1998: 101; cf., Gilcrest, 1991; Stanton and Stewart, 1995). Along these lines, A. Wylie notes ways in which the application of archaeological theory neglected gender issues (Wylie, 1992, 1993). This neglect is not necessarily inherent to the theories themselves but in the ways archaeologists have applied them including the variables they have selected for concentrated study. These include questions asked, samples chosen, and conclusions reached. This sentiment is echoed by Wright and Hill who stress multivariate methodological and theoretical approaches to understanding gender. They see nothing within existing theoretical frameworks,
including evolutionary, Marxist, processual, structural, or postprocessual, that would exclude their use for study of gender issues (see Hill, 1998: 104; Wright, 1996; cf., Conkey, 1991, 1993; Wylie, 1991, 1993: 14). One result of the exclusion of gender studies as a variable in archaeological research is that gender issues potentially useful to spatial and household studies largely have been ignored. These include especially the studies of feminine technologies or productive tasks associated with women (e.g. cooking and weaving in our society), and their relative significance in influencing and changing social organization (see McGaw, 1989, 1996). The present study attempts to identify feminine technologies in the archaeological record as well as their organization, and it approaches these productive tasks, of necessity, from the perspective of artifacts, their context, and the identification of past behaviors and activities with which they are associated.

However, some feminist scholars have pointed out that the “assignment” of activities to male or female actors based on materials excavated from the archaeological record is problematic as it assumes an absolute division of labor and that gender roles are static rather than dynamic and adapting (Conkey and Gero, 1991; Hill, 1998). Hill believes the heavy reliance of most archaeological gender studies on ethnographic analogy and ethnohistory (Conkey, and Gero, 1991; Hastorf, 1991) or cross cultural generalization (Skibo and Schiffer, 1995) causes this non-changing view of women’s roles in society (Hill, 1998: 106-09).6 She rightly points out that gender is an expansive

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6 But see already Brumfield, 1996; Costin, 1996; Joyce, 1996; and Wright, 1996 for
and complex concept that can no longer be seen as a simple male/female dichotomy (see e.g. Blackwood, 1984; Herdt, 1994; Meigs, 1990). It should instead be seen as a social construct formed by discursive practices that treats sexual identity as fluid (Meskell, 1996; Moore, 1993, 1994). Not viewing gender roles in this way can lead to problematic interpretations of gender in the past.

For Hill, the over-reliance on ethnographic analogy and ethnohistory maintains uniformitarian and mutable views of gender in society. Thus they should only be used for analogy when a demonstration of conservatism and continuity with the prehistoric society under study is strongly exhibited (Hill, 1998: 109; see already Gould, 1978a). However this critique of ethnographic data is nothing new and certainly not exclusive to gender research. Studies addressing problems inherent to analogical based studies are numerous (e.g. Ascher, 1961, Binford, 1967; Dunnell, 1978, 1992; Gould and Watson, 1982; Salmon, 1982; Wylie, 1982, 1985). And this brings us back to the subject at hand of ethnographic and ethnoarchaeological verification of archaeological inferences.

While these feminist studies, as well as the greater body of ethnographic and ethnoarchaeological literature lead to a number of cautionary tales concerning inferences made from the archaeological record (e.g. Bonnichsen, 1973; Cranstone, 1971; David, 1971; Horne, 1982; 1991; Kramer, 1982; Newell, 1987; Stanislawski, 1973), it is clear that our etic notions are useful for reconstructing elements of the past.

These etic notions are based on an understanding that people in the past, just as multivariate approaches to gender studies that do not emphasize ethnography and ethnohistory at the expense of other, more contemporaneous lines of data.
people today, behaved and acted in ways that patterned their environment. As pointed out by Kent, "Humans are creatures of patterns – our cultural material is patterned, our behavior is patterned, our culture is patterned, and the interrelationship among cultural material, behavior, and culture is patterned. Most importantly our use of space is patterned." (Kent, 1987: 3; cf. 1984). These patterns, which are introduced by human behaviors during activities, exist because the location of most human activities is not random, often requiring a series of conditions be met for their execution. The material aspects of these conditions exist in the archaeological record as patterned groups of residues and artifacts. Because these patterns are socially conditioned, their understanding allows archaeologists, through the identification of activities, to address aspects of past societies based on the archaeological record. Therefore, the archaeological analysis of activities leads to a better understanding of behaviors useful for understanding ancient households. But, specifically, how should the interpretation of activity areas be approached? Before addressing this question, a better understanding of how the terms “activity” and “activity area” are used here is necessary.

Activities are defined as the articulation of material and manual operations that are carried out in activity areas as determined by cultural (i.e. patterned) norms. The archaeological record best preserves the residues of activities that were carried out repeatedly in the same area – often referred to as “activity areas.” Activity areas are used here to describe the loci where particular past human events or activities occurred that can be inferred from deposits in the archaeological record (Kent, 1984: 1; Sinopoli, 1991: 85). These areas are defined in terms of composition, relative density, number of artifact
clusters and other remains, and in terms of the locations and relative amounts of space utilized for each within the settlement and/or dwelling locus (this follows Newell, 1987: 107). Activity areas are spatially restricted from other areas and serve here as the smallest unit of spatial analysis. The goal is to associate activities with correctly identified activity areas based on the recognition of patterns in remains preserved in the archaeological record.

Many activities require that specific sets of criteria, or performance characteristics of places and objects, be met for their execution and these sets of criteria vary for different activities, but vary in patterned ways (see Schiffer, 1999: 16-20, 25-26). Thus, if one is to cook a stew, necessary criteria to perform this activity include, among other things, a heat source such as a hearth or cooking fire and a vessel to hold the contents of the stew over/on the heat source. A different set of criteria are necessary for the production of flint tools which may include some type of anvil or striking platform and a number of flaking/percussion tools. When dealing with architecture these sets of criteria have been referred to as "performance characteristics of places." In addition to these performance characteristics, others types of remains can be useful for determining the use of space. Behaviors performed in the process of carrying out activities often leave non-random residuals or by-products that vary from other types of remains – both patterned and non-patterned. So the charred residues of the fuel source consumed in a cooking fire are produced in the area where the cooking fire burned just as large quantities of small lithic debitage are produced and scattered (possibly in patterned distributions) in an area where flint knapping occurred. Once sets of criteria, or performance characteristics, and
residual by-products are understood as being patterned and produced by specific behaviors or activities, they become identifying markers or diagnostics for these activities and therefore become useful for the interpretation of space. These sets of criteria and residual remains exist in the archaeological record as patterned groups of moveable artifacts, floral and faunal materials, permanent and semi-permanent features, and architecture. That these types of remains can be used to interpret activity areas was demonstrated convincingly by R. Newell (1987).

R. Newell’s activity area research in a prehistoric/early historic Inupiat village demonstrated convincingly the presence of a clear system and plan behind the partitioning and utilization of space around house mounds and also a clear emic perception of the space which belonged to each household and how it should be used (Newell, 1987: 135). His research follows that done by others in hunter/gathering camps that demonstrates that activities usually are restricted in location within sites according to their spatial requirements (e.g. Binford, 1983; O’Connell, 1977, 1979). In Newell’s analysis, he first attempts to define activity areas based on the presence/absence/density and distribution of clusters of artifacts found archaeologically around house mounds. His approach “is to partition the total assemblage into groups of artifacts (tools and waste) which can be demonstrated to covary in the functional sense of representing activities and/or the residue (depositional behaviors or activities)...[It is believed that a] traditional, morphological, raw material hierarchical typology will provide a poor fit between artifact and activity (see also White and Thomas, 1972). Such a formal and static typology will not provide relevant information on the behaviors of the partitioning and utilization of space. Instead, we need a different approach, i.e., one in which the total assemblage may be grouped in such a way that the resulting categories represent covarying activities – the tools and waste products of patterned behaviors, as altered by taphonomic processes”
Using this approach, Newell tests his interpretations of various activity areas against ethnographic information and informants' emic notions about the organization of space. He finds that there is indeed a "cultural template" for the way space is organized in the sites of the Inupiat villages. His research clearly supports the belief that activities carried out in specific areas can be recognized archaeologically by the refuse produced in their execution when the behavioral context of the activities producing the artifacts is correctly identified. When this happens the emic-etic controversy is not an analytical problem. In addition, Newell also noted that items left at a site were often found and thrown away, and/or found and subsequently removed from the site by later occupants, consequently impoverishing the material data base (Newell, 1987: 142). Thus the spatial patterning of material remains that once reflected activities and behaviors may become diminished to the point of being analytically unrecognizable. Knowledge of the causes, means, and speed of departure of the former occupants of a site (Lange and Rydberg, 1972: 430), the nature of its re-occupation, as well as the effects of formation processes (Schiffer, 1983; 1987) affect the usefulness of material remains for identifying activity areas. Three important variables which additionally affect the identification of activity areas are a result of: 1) the interaction and/or quantity of diagnostic artifacts; 2) the spatial integrity of those artifacts; and 3) the curative, retentive, or recycling value of those artifacts (Newell, 1987: 142). While Newell cautions that a number of processes can affect the recognition of activity areas preserved in the archaeological record, he also demonstrates the usefulness of studying patterns in archaeological remains to understand activity areas.
In his words, his excavations showed that areas he investigates "produced discrete patterning which agreed with relevant ethnographic and ethnohistoric identifications and indicated that reoccupation did not bias nor homogenize the underlying spatial patterning of material remains" (Newell, 1987: 145).

Newell's research makes it clear that in sites with an archaeological record that has not been impoverished severely, the recognition of the patterns in material remains preserved in the archaeological record can be used to identify through inference or analogy the locations where specific activities took place. Thus, to understand the activity areas associated with the archaeological household, it is necessary to detect and measure the patterns of organized relationships that exist in space between architecture, features, and artifacts. Identifying these patterns is the first step toward making higher level statements regarding past socio-cultural organization.

Understanding and identifying the patterns of organized relationships that exist in space between architecture, features, and artifacts that reveal the way ancient peoples used their space is one area where archaeology has been successful. For archaeologists have demonstrated their formidable skills in interpreting spatial patterning at many levels as they attempt to trace human activities across the landscape. Most importantly for the present research is that researchers like Newell have demonstrated these skills in interpreting small spatial units like activity areas in domestic contexts. The tool best available to archaeologists for this type of research is the spatial analysis of archaeological remains.
Using Spatial Analyses

The best way to identify past human behaviors and activity areas that shed light on ancient households is through a spatial analysis that focuses on the identification of patterns in material remains (material culture) preserved in the archaeological record. For this reason, a spatial analysis is undertaken of the archaeological remains of a pillared dwelling unearthed in the Iron II destruction Stratum VIB in Tel Halif's Field IV. The spatial analysis used here is treated below. Spatial analysis as an analytical procedure is reviewed including what it is, the principles upon which it works, including the concepts of patterning and variability, and the sources that introduce variability and patterning into the archaeological record. These include prehistoric behaviors and natural and cultural formation processes in various contexts. This review is followed by a discussion of methods employed at Tel Halif for approaching spatial analyses. The discussion of methods includes how the dissertation approaches the Field IV archaeological remains methodologically and logistically in the field, and how it attempts to account for all processes introducing variability and patterning into the archaeological record.

Spatial analyses as analytical procedures are concerned primarily with the detailed, three-dimensional mapping of archaeological remains. Such mapping allows researchers to determine how spatial organization is derived quantitatively from the analysis of archaeological remains such as artifacts and architecture. As noted by Gnivecki (1987: 177), the concern is with the detection and measurement of the patterns of organized relationships that exist (either continuously or intermittently) through time between architecture, features, and artifacts. In archaeology, the need for detection and
measurement of patterns in this matrix leaves spatial analyses with two primary tasks: 1) defining the degree of similar or dissimilar spatial arrangements of different artifact types or attributes over a site, and 2) defining the spatial positions and limits of clusters, voids, or other interesting arrangements of artifacts that are of various types or that have certain attributes (Carr. 1985a). Only when these tasks are carried out can patterns be discerned in spatial arrangements of material culture, and can artifact frequencies be associated with human behaviors (as opposed to other sources of patterning and variation such as noncultural formation processes) and therefore be used to identify activity areas. As such it works on the same principle as activity area research.

The use and development of spatial studies in archaeology closely parallels the development of activity area research outlined in the previous section. It also works on the same principle – that of identifying the causes of patterned variability. The archaeological record contains material culture that is patterned and reflects events occurring over short or long periods of time and groups of objects used in specific ways (Kent, 1987: 44). S. Kent further notes that many factors can determine patterns in material remains including object function, raw material, particular microenvironment, behavior or object’s use, and culture in terms of technology in its most abstract sense, specialization, division of labor, and so on (Kent, 1987: 3). These patterns among artifacts and other material culture over an archaeological site are very important to archaeologists. By focusing on the recognition of specific patterns in the archaeological record and how they vary from other patterns in material remains and by examining the processes responsible for the relationships among patterns, archaeologists can begin to
concentrate on explanations of the causes of those patterns and attempt to demonstrate the relationships between specific patterns and past human behavior and activities. Once patterns are recognized they must be explained. Explanations of observed patterns discovered in material culture often are the product of inferences and analogies learned from ethnographic, ethnoarchaeological, experimental, ethnohistorical, or archaeometric studies. For example, it is clear from current ethnographic studies that the location of most activities is not random.

As discussed above regarding activity area research, ethnographic and ethnoarchaeological data demonstrate that most activities require that a series of conditions be met. During the performance of these activities, special tools or equipment often are used and specific types of residues are produced. Ethnographers and ethnoarchaeologists observing these activities and then mapping patterns observed in the materials utilized and produced in various activities, as well as identifying processes that may affect these patterns, provide analogical data useful for archaeologists attempting to interpret archaeological data where similar patterns are observed. To discover patterns in the archaeological record similar to those observed ethnographically and ethnoarchaeologically, archaeologists must take great care in mapping the material remains they excavate from the archaeological record giving great detail to stratigraphic relationships and the context of all unearthed artifacts. Through these methods, the

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More on the use of ethnography and ethnoarchaeology will be discussed in Ch. IV. Also, see references under previous discussion of activity areas.
identification and interpretation of patterns in the archaeological record are what make possible the reconstruction of tool kits, activity areas, and dwelling areas which provide clues for identifying ancient behaviors and, in general, the lifeways of past peoples.

So, it is the goal of spatial analyses first to provide provenience information of artifacts and refuse retrieved from the archaeological record. This is accomplished through the three-dimensional mapping of the find spots of excavated material remains. The next goal then is to identify patterning and variation in the spatial distributions, occurrences, frequencies, and other relationships among the artifacts and refuse. Finally, the goal is to correctly associate the patterns observed in the material remains with prehistoric or past behaviors that lead to the identification of past activities and insights into systems of past societal organization. While this appears simple enough, a caveat should be stated. As pointed out earlier by Newell, the key to correctly identifying past human behaviors and activities when using archaeological remains is to correctly determine that the material remains (artifacts and refuse) mapped by a spatial analysis occur in or spatially near the area/context where the behavior or activity which produced them was carried out – an area or context known as the behavioral or systemic context (Newell, 1987: 142; cf. Schiffer, 1972). Finding and determining that refuse and artifacts reflect the behavioral context often is not a simple task.

Items in the archaeological record can rest in a number of contexts. In addition to the behavioral context, artifacts and refuse can enter archaeological and site contexts. The behavioral context (Schiffer’s systemic context) refers to artifacts and refuse that are inferred to have been left where they were used or participated in a behavioral system
usually of interest to the archaeologist (Schiffer, 1972, 1976: 27 - 28, 1987: 3). Refuse and artifacts in the behavioral context are abandoned or discarded, either deliberately or accidentally, at the location of their use and become primary refuse (Schiffer, 1987: 18). Primary refuse usually is rare and consists of small items (DeBoer, 1983; McKellar, 1983; Schiffer, 1976: 1188). It should be identifiable on the basis of size, condition, restorability indices, and spatial patterning (Schiffer, 1985: 25). In rarer instances primary refuse may include \textit{de facto} remains which include numerous, still usable artifacts from the systemic or behavioral inventory (Schiffer, 1985: 18 – but these are discussed in greater detail in Chapter II). Secondary refuse refers to archaeological refuse that is discarded or removed from its use location (Schiffer, 1987: 18). It often ends up in behavioral contexts as trash or in a secondary use, but it also can end up in site context upon exiting a behavioral system. Site context (Schiffer’s archaeological context) refers to artifacts and refuse that are removed from the location of their use and interact only with the natural environment and can result from cultural activities during occupation or factors which disturb the archaeological record after abandonment (Montgomery, 1994: 17-18; Schiffer, 1972, 1987: 4). Cultural and natural factors that produce disturbed refuse include curating, plowing, sweeping, dumping, running water, gravity movements, wind deflation and animal activity as well as others. It is important to understand which factors contribute to the placement of archaeological remains so that the correct context of the artifacts and refuse can be established.

The archeological record contains many intervening filters which complicate the identification of context of archaeological remains and hamper the detection of material
signatures left by human behaviors and activities in the archaeological record.

Complication can be introduced during archaeological recovery through the unsystematic
and/or incomplete recovery of artifacts or their misclassification (Carr, 1987: 177-79).

But causing even greater problems with the interpretation of behaviorally significant
patterns are processes that introduce variability and patterning into the archaeological
record but are not associated with human behaviors of interest to the archaeologist. These
sources, commonly referred to as taphonomic processes or formation processes, must be
accounted for before artifact and refuse patterns can be established in the behavioral
context via spatial analyses and used to infer past behaviors.

Before behavioral interpretations can be provided for well-provenienced artifacts,
it must be remembered that human behaviors are not the only processes introducing
variability into and leaving patterns in the archaeological record. Formation processes
also introduce variability and leave patterns in the archaeological record (Binford, 1976,
1978a, 1979; Carr, 1987; Gifford, 1978, 1980; Kent, 1984; O’Connell, 1979; Reid, 1973,
1977). Formation processes are those processes, both natural and cultural, affecting the
location, condition, and associations in which archaeological materials come to rest.

These processes are most active on artifacts from the time they leave a behavioral system,
either deliberately (through discard which is a formation process) or accidentally, until
they are recovered by the archaeologist. However, they are active on remains in a number
of contexts. These contexts, which are based on their relationship with past and present
natural and cultural systems, have been viewed in a number of ways including Ascher’s
entropy view (1968) and Cowgill’s tripartite division (1970). Several authors followed Cowgill’s tri-partite division and differ from one another primarily in terminology. The schema are as follows:

<table>
<thead>
<tr>
<th>Author</th>
<th>Past System</th>
<th>Past System</th>
<th>Present System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schiffer</td>
<td>Systemic context</td>
<td>Archaeological context</td>
<td>Systemic context</td>
</tr>
<tr>
<td>(1976: 27-28)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reid</td>
<td>Systemic context</td>
<td>Archaeological context</td>
<td>Archaeological context</td>
</tr>
<tr>
<td>(1973: 18-24)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dean</td>
<td>Behavioral matrix</td>
<td>Site matrix</td>
<td>Archaeological matrix</td>
</tr>
<tr>
<td>(1978: 238)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Montgomery</td>
<td>Behavioral context</td>
<td>Site context</td>
<td>Archaeological Context</td>
</tr>
<tr>
<td>(1994)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(adapted from Montgomery, 1994: 17)

The dissertation follows Montgomery’s terminology in its review of the contexts in which variability is introduced into the archaeological record. Variability introduced in behavioral context is usually caused by prehistoric behaviors in a past cultural system which are of interest to the archaeologist for understanding those past systems. However, both behavioral activities and formation processes (cultural and natural) cause variability in this context. Variability introduced in site context is caused after items leave their cultural system (in the behavioral context) and before they enter the archaeological context. It is caused by both natural and cultural formation processes which are usually most active during this period. Forces introducing patterns in this context often obscure
behavioral patterns by rearranging items in the archaeological record (Montgomery, 1994: 19). Variability and patterns in the archaeological context are introduced in a present cultural system as items from the archaeological record are excavated, analyzed and given interpretations.

Patterns introduced by formation processes often distort the behavioral information sought by archeologists. Thus, until formation processes are systematically investigated and methods are found for taking them into account, one cannot begin to make behavioral inferences of observed phenomena (Schiffer, 1972, 1985: 19; cf. 1981, 1983, 1987). In order to make credible inferences from the data derived from a spatial analysis, the investigator must segregate items produced by various formation processes, that can contribute refuse, artifacts, artifact and refuse frequencies, and other patterns into archaeological remains and assess the degree and nature of any depletions of or additions to the archaeological record (Schiffer, 1985: 30). While it is difficult to identify and isolate all agents acting on the archaeological record, systematic attempts should still be made to account for as many disturbance processes as possible and assess the degree and nature of any depletions of the artifacts and refuse. Schiffer states that, "on the basis of extant information, the rigorous investigation of formation processes in any project can be practical" (1983: 675). But it was his student B. Montgomery who introduced an effective method for executing such an analysis (Montgomery, 1994). In Montgomery’s analysis of ceramics excavated from Chodistaas Pueblo in the White mountains of east central Arizona, she convincingly demonstrated how past ritual behavior was previously and mistakenly interpreted as natural formation processes due to a poor understanding of
the latter. She demonstrated this by following a procedure designed to ferret out variability introduced by formation processes in site context.

Montgomery proposes that before meaning is given archaeological remains a set of procedures should be followed which lead to the understanding and identification of patterning introduced by natural and cultural formation processes in site context. She proposes that the following procedures should be followed to test for natural formation processes: 1) compile a list of possible processes and agents; 2) study the environmental-geological, climatic, and biological characteristics of a particular site; 3) from the list of possible natural processes, choose those with the highest probability of having had some effect on the site, based on the environmental data; 4) test for each specific process and evaluate its impact on the archeological record; 5) evaluate the overall role of natural formation processes in the disturbance of materials in site context (Montgomery, 1994: 152).

Similarly, to test for cultural formation processes one should: 1) compile a list of possible processes; 2) test for each specific process; 3) evaluate the impact of each process on the archaeological record; and 4) evaluate the overall impact of cultural disturbances in site context (Montgomery, 1994: 174). These procedures for studying formation processes were developed for a relatively short-term (by southern Levantine standards), single component site and only take into account processes occurring in site context. However, with minor changes, her procedures can be applied successfully to the multi-layered tells of the Near East like Tel Halif and address formation processes active in all contexts. An adapted set of procedures for analyzing the effects of formation
processes on the Field IV archaeological deposits is outlined below in the discussion of
the spatial analysis carried out on the remains of a pillared dwelling from Tel Halif.

**Spatial Analysis at Tel Halif**

For any spatial analysis to work successfully, it needs to be well conceived from
the beginning of a research project through final publication. Thus components need to
be added to the research design/field methodology which allow data to be gathered that
lend itself to this type of analysis. This had been the attempt of the excavations in Tel
Halif’s Field IV. Since an understanding of activity areas in the pillared dwelling is the
focus of this archaeological investigation, broad exposures of these dwellings was an
early goal of the Field IV excavation. Consequently, large horizontal exposures that
provided a broad view of the internal organization and structure of the pillared dwelling
and the nature of the artifact assemblages therein were emphasized rather than vertical
exposure of the site. In addition, great care was taken to map the remains unearthed in
these broad exposures.

Methods of excavation were adopted which preserved as much of the spatial data
as possible from the excavated material remains. This was imperative so that patterns in
the material remains could be recognized and associated either with the behaviors and
activities carried out by the occupants of the pillared dwelling or with formation
processes which distort behavioral patterns. The archaeological data from Tel Halif were
collected with the utmost care to stratigraphic excavation with particular attention to
bonding and other structural and contextual relationships between floors, walls, artifacts
and other features. Meticulous excavation and recording provided efficient data recovery and holds great promise for providing new data. An adapted version of the Wheeler/Kenyon or traditional balk/debris method of field excavation was employed in the excavation of Field IV at Tell Halif. Additional features were added to facilitate increased precision in retrieval through total sifting and detailed three-dimensional mapping or gridding through use of a mini grid device dubbed the "magic square."

The archaeological record of Tel Halif is approached through a "modernized hybrid" of the Wheeler/Kenyon or traditional balk/debris method of field excavation adopted via the Gezer Project of the late 60s – early 70s (see Dever and Lance, 1978) and also Phases I and II of the Lahav Research Project excavations at Tel Halif (see Seger, 1980; Jacobs, 1992). A five meter square grid was superimposed on the area of the tell designated Field IV creating rows and columns of five meter squares or units. Four meters of earth were removed from each unit, leaving one meter of earth temporarily standing between each unit for vertical stratigraphic control. Since much of the data preserved in Tell Halif's Stratum VIB destruction stratum appear to be de facto refuse preserved in a behavioral context, a method of collection was required that would preserve as much of the spatial and contextual information contained therein as possible. Two methods were employed to this end: total sifting and the use of the "magic square."

Virtually every bit of excavated soil from the modern tell surface down to beneath the Iron II floors was sifted for even the smallest fragments of artifacts using 1/4 inch mesh screen. Not only did a greater number of small artifacts appear, such as fauna, bullae, small weaving tools and the like, but notions of how restorable or how complete
were the artifacts became more a question of preservation and disturbance than methodology. In addition to the sifting of all soils through 1/4 inch mesh screens, soil samples were taken from all floors and surfaces and separated with a series of size graduated screens down to 1/4 mm.

The "magic square" is a simple device created from PVC pipe measuring two meters square and subdivided twice. It easily can be laid over an excavation area (keyed to the Field IV grid), to impose a "mini grid," thus allowing artifacts to be collected in 50 cm square increments. This device was used on all floor materials in Field IV as well as materials in destruction debris that appeared to be in or near their use locations. In addition, the vertical positioning of the artifact is recorded. Each artifact collected with the magic square is labeled with provenience information, registered and weighed before analysis or reconstruction. Thus, once it enters these archaeological systems, it arrives with very precise spatial information allowing one to address questions such as how far an artifact may have scattered across a floor upon its breakage or how many of its fragments, if any, actually made contact with a floor. In short, complete sifting and use of the magic square provide great detail about "what is there" and "where it is located" - the very information necessary for identifying patterns introduced by human behaviors. But before behavioral inferences are given the observed patterns, it also is important to determine of the archaeological remains "why are they there?"

While past human behaviors may be responsible for the patterns observed in Field IV. But all sources introducing variability and patterning into the archaeological record must be accounted for, including natural and cultural formation processes in various
contexts in addition to human behaviors, before behavioral information can be inferred from the archaeological data. Cultural and natural formation processes can create new patterns and move or remove archaeological remains through erosion, curation, clearing/cleaning, etc. (Schiffer, 1987: 79). They also introduce new material remains into the archaeological record through ritual caching, ceremonial trash, or discrete concentrations and other additions of secondary refuse through other means (see Diehl, 1997; Montgomery, 1994; Schiffer, 1987: 79; Wallen, 1995). A rigorous attempt is made to identify as many formation processes as possible that are active on the stratum VIB remains at Tel Halif. This is attempted by following a set of procedures adapted from Montgomery's analysis of formation processes (Montgomery, 1994) that are expanded to include processes active in both the behavioral and archaeological contexts in addition to site context.

To test for natural formation processes here, the following procedures are followed: 1) compile a list of possible processes and agents active in behavioral, site, and archaeological contexts; 2) study the environmental–geological, climatic, and biological characteristics of Tel Halif and how these change through time; 3) from the list of possible natural processes, choose those with the highest probability of having had some effect on the site, based on the environmental data; 4) test for each specific process and evaluate its impact on the archeological record in each context; and 5) evaluate the overall role of natural formation processes in the disturbance of materials in behavioral, site, and archaeological contexts (adapted from Montgomery, 1994: 152). A list of possible natural formation processes and agents affecting artifacts in the archaeological
record is assembled from lists compiled from Carr (1987), Montgomery (1994), Schiffer (1987), and Wood and Johnson (1978) and tested against units that fell inside Field IV excavation areas only. The complete list of natural processes and the analysis of their affects on the deposits in Field IV is presented in Chapter III.

To test for cultural formation processes these procedures are followed: 1) compile a list of possible processes active in the behavioral, site, and archaeological contexts; 2) test for each specific process in each context; 3) evaluate the impact of each process on the archaeological record; and 4) evaluate the overall impact of cultural disturbances in behavioral, site, and archaeological contexts (adapted from Montgomery, 1994: 174).

The list of possible cultural formation processes and agents affecting the archaeological record is assembled from Carr (1987), Montgomery (1994), and Schiffer (1987). The complete list of cultural processes and the analysis of their affects on the deposits in Field IV is presented in Chapter III.

The effects on the Tel Halif remains of the natural and cultural processes included in these lists is tested in the units that fall into the Field IV excavation areas to determine which processes were/are most active on the archaeological remains of Stratum VIB. The effects are analyzed by making direct visual observations of site formation (e.g. erosion processes) and by comparing all observations of anomalies and patterns in the Field IV data with principles and indicators of the affects of formation processes developed through experimentation or ethnographic and ethnoarchaeological observation. Some examples of useful observation include the dip and orientation of artifacts, abrasions and wear patterns on artifacts, and patterns of refit among pieces of broken artifacts to name a
Study of the affects of formation processes on the archaeological remains at Tel Halif is vitally important if activity areas are to be identified using archaeological data. One can begin to make behavioral inferences of observed patterns in the archaeological data only after patterns and variability introduced by formation processes are identified and accounted for. Patterns observed in archaeological remains and determined not to be introduced by formation processes are associated with behaviors and activities through ethnographically and ethnoarchaeologically based inference and analogy, experimentation, archaeometric techniques, and pertinent textual materials. But this is addressed in detail in Chapters III, IV, and V. In this way we can begin to use the distributions of artifacts preserved in archaeological remains (especially ceramics as discussed in Chapter II) to understand the use of space in the pillared dwellings of Iron II Tel Halif and address the nature of household organization.

Summary

This first chapter outlined the dissertation and set as its ultimate goal the better understanding of household organization at Iron II Tel Halif. It discussed and demonstrated the important role of household studies for understanding social, economic, and even political organization of society. The household was defined in functional terms to make it more accessible to archaeological investigation, and the archeological household has been introduced as the subject of archaeological investigation. The archaeological household consists of the Iron II pillared dwelling and the people who...
commonly occupied/used its space. A spatial analysis of the remains of a pillared
dwelling at Tel Halif is proposed to identify activity areas that shed light on household
activities, thus allowing reasonable inferences to be made about Iron II household
organization. This approach provides information not only regarding domestic activities,
but also more complex organizations in society as a whole.

While this chapter demonstrated the importance, usefulness, and methodological
approach to household study, it has not touched on the suitability, indeed the great
potential, of the rich archaeological deposits of the southern Levant generally and Tel
Halif specifically for use in the type of research it outlines. This demonstration is an
important goal of the dissertation and the subject of the next chapter.
Chapter II

HOUSEHOLD ARCHAEOLOGY IN THE SOUTHERN LEVANT

This chapter focuses on “why” and “how” the archaeological remains of the southern Levant in general and Iron II Tel Halif in particular are suited well for archaeological investigation at the household level. To address the “why” section of this discussion a general review of the nature of the archaeological data available for use in the present study is undertaken. Since most data come from tells, tells as a type-site are reviewed, including their formation and what is preserved in them. One of the most conspicuous features preserved in tells and useful for reconstructions of the past is the destruction stratum. Destruction strata, as common phenomena in tell sites especially dating to the Iron II period, yield excellently preserved archaeological remains in a behavioral context. Remains from an Iron II destruction stratum (VIB) at Tel Halif are the primary data source utilized in the dissertation. For this reason they are reviewed here, including their genesis, their continued formation, what exactly is preserved in them, and their general usefulness for understanding the past. Common in Iron II destruction strata are the well preserved pillared dwellings described in Chapter I. It is reviewed here in greater depth as the locus of both domestic activities and the archaeological household. Included in this review is the dwelling’s identification, description, origins, and subsequent spread throughout much of the Iron Age southern
Levant (12th/11th - early 6th century B.C.E.). Following is an examination of the dwelling’s various components and functions as understood largely through architectural-based inferences.

To address the “how” section of this discussion a review is included of how remains preserved in destruction strata of tell sites are used to interpret domestic space. Since ceramics are the primary data set employed to determine the identity and location of activity areas and use of space at Tel Halif, their use in this undertaking and their processing and analysis is discussed also. To conclude this chapter, a number of questions which the dissertation attempts to address is presented. These questions are based on the nature of the archaeological remains discussed in this chapter, including tell type sites and destruction strata, both in general and at Tel Halif in particular. Issues addressed include the interpretation of Halif’s archaeological data and their usefulness for understanding household organization during the Period under review. While the questions are posed here, it is intended that they be addressed in subsequent chapters with the rich archaeological data from Tel Halif’s Field IV destruction stratum. First however, a description of the nature of the archaeological remains from the southern Levant pertinent to the study of the archaeological household is discussed. This will begin with a brief overview of the best known type of site from the Iron Age II – the “tell” site.

The Tell as a Site Type.

Most of the archaeological data used here come from the tell-type sites so prevalent throughout most of Southwest Asia. These sites especially are common in the
southern Levant. Excavations of tell sites provide a great quantity of data useful for household study including well understood town plans including especially domestic quarters. From these sites, as well as others, numerous examples of pillared dwellings have been recovered through excavation and are available for comparative study with the Tell Halif data. For this reason and because Tel Halif falls into this category of site, a brief discussion of the “tell” as a site type begins this chapter. The tell is defined, its formation is described, and the type of remains of which they usually consist is discussed.

The tell as a type of site is a phenomenon characteristic of and distinct to Southwest Asia. In the most general terms tells are artificial, steep-sided, flat-topped mounds composed of the remains of past human settlements built up at a non uniform rate over long periods of time. The remains preserved in tells exist as a composite of occupational strata, destruction levels. and, to a small extent, additions of naturally deposited sediment (cf. Folk. 1975; Paepe et al.. 1978; Raikes. 1966; Rosen. 1986: 9). Their characteristic steep-sides and flat tops are attributes determined primarily by the structural features they encompass. Most significant among these features are fortification systems encircling other cultural deposits. These include fosses and moats (often dry), walls, towers. glacis structures, gate structures, and ramps (Parr. 1986). Externally these ramparts have an effect on the steepness of the slope determining, at least somewhat, its resistance to erosion, although they do not prevent eroded up-slope material from accumulating at the base of the slope therefore decreasing its angle (Rosen. 1987: 29). Most often fortification walls preserved in tells lead to the formation of steep outer slopes. Internally, the ramparts tend to hold a tell’s matrix largely in place behind
them. This matrix is, for the most part, a result of cultural activity and originates primarily from the residues of collapsed mudbrick and stone structures such as dwellings, storage facilities, administrative and/or palace complexes, economic/industrial complexes, and the trappings of institutionalized religion in the form of temple complexes (Davidson, 1976; Rosen, 1986: 1997: 163). These residues include mudbrick, stone, ceramics, some occasional lime plaster, and organic refuse as their primary components. These components are modified by natural and cultural processes, causing reduction and redeposition of the sediments, transforming them into the secondary refuse (Rosen, 1986: 10). Natural and cultural processes continuously change and rework the structure of the tell as more recent cultural deposits are added onto earlier ones. These cultural deposits often are separated by thick and spatially large destruction layers or by the buildup of thin layers of natural soils. The former includes debris from falling and burning structures while the latter occurs only when cultural activity ceases for extended periods. The length of the occupational hiatus determines which processes are most active on the cultural deposits. Short-term abandonments generally lead to sheet wash and ponding and/or the accumulation of natural wind-blown silt and sand, whereas major occupational gaps lead to soil development, natural erosion of entire strata, and/or the deposition of wind-blown deposits (Bullard, 1970: 115-116; Rosen, 1986: 13). Due to these processes, the height and size of the tell can expand and contract and otherwise change through time.

The time of occupation spanned at most tells in the southern Levant usually is over several millennia, fixing them in M. Schiffer's categories of recurrent extended or
supra-extended habitation sites (Schiffer, 1987: 101-2). Extended habitation is a unit of occupation involving stays of more than a decade but less than a century whereas supra-extended habitation endures in excess of a century. Recurrent habitation refers to repeated occupations of the same kind at the same site. In the southern Levant, the periods most significant for tell development, or at least the most significant for the addition of cultural deposits through recurrent extended and supra-extended habitation, begin in the Early Bronze Age (ca. 3200 B.C.E.) and continue through the end of the Iron Age (ca. 600 B.C.E.). The remains of each of these separate habitations exist in the matrix of the tell as strata, or layers of various distinctions, vertically imposed one upon another and often separated (usually clearly) by soil formation or destruction strata as mentioned above. Fortification wall systems restrict the horizontal extent of the settlements causing them to grow upward instead of outward. Tell sites owe their longevity to the nature of the topography, geomorphology, and climate of the southern Levant.

In the southern Levant, a finite number of locations regularly met the needs of large sedentary populations, at least by southern Levantine standards. Such populations required an adequate and constant supply of water, arable land for agriculture, and a defensible position in case of attack. A number of tell sites also sit along major thoroughfares linking local regions as well as Africa with Europe and Asia. Tells also occur at cross roads controlling major travel and trade routes. Changing settlement patterns around the 5th-4th centuries B.C.E. due probably to changing political conditions and populations (in general, see Stern, 1995: 437-441) leave most tell sites abandoned as
habitation sites after this time. However, their development as sites continues.

Once tells are abandoned their structure continues to change as natural processes continuously wrought their effects on the tell’s sediments. Additionally, cultural processes continued to affect these sites as nearby residents rob building materials from their matrix, plant their agricultural crops on the tell surfaces, graze their stock there and on the slopes, “dig in” to their deposits for military defensive positions, deforest the surrounding environments and subsequently re-introduced forests on tell slopes and summits. Tells as they appear today, sometimes two to three millennia after abandonment, do not have the same form and shape they did at the time of their abandonment. This is most noticeable on tell slopes. It is rare to find tells with uniform slopes on all sides due largely to the varying effectiveness of erosion and weathering on slopes facing different directions, as well as slope proximity to varying geographical features (Rosen, 1986: 29). If one is to understand the cultural remains in various areas of tells and explain their genesis, it first becomes necessary to determine which processes were are at work in different areas of the tell. The best way to do this is to approach the study of tell deposits and remains in the greater context of the tell’s surrounding environment.

As Rosen points out (1986: 53) the tell is constructed of sediment taken from within a short radius of the site, so that the natural and man-made sediments are interwoven to form the mound. As such it is an integral part of its surroundings and the history of its formation is intimately related to the history of landscape changes in its environs. The natural forces which transform the landscape, such as erosion and gullying,
also are at work on the mound (Rosen, 1986: 53). So to understand the archaeological deposits entombed in tells it becomes necessary to view them and investigate them in the wider context of their environmental, geographical, and chronological settings. This is the approach taken by the dissertation. In order to properly understand the remains employed in this research, it becomes necessary to view them in the wider context of tell formation so that all processes active in their formation can be understood well before behavioral interpretations are ventured. Archaeological remains excavated from tells.

While a contextual approach is taken here, this has not been the case always when studying archaeological remains in tells. This especially was the case in the earlier half of this century and latter part of the last when archaeological data from tells were gathered with much less precision and with less understanding of stratigraphy than are today's standards (see Silberman, 1995). However, much of this material nonetheless is useful for the study of the archaeological household of the Iron II. One of the primary reasons for this is due to the nature of a specific type of deposit found in tells – the destruction stratum.

**Destruction Strata in Tells**

Even using the unsophisticated, less meticulous methods characteristic of older excavations, archaeologists usually could recognize and separate destruction strata in tells from their surrounding deposits. This is due largely to qualities unique to and inherent of these strata, rendering them easily definable and separable entities in the archaeological record of tells. Destruction strata represent the remains of settlements destroyed rapidly
and usually covered over or sealed before many natural and cultural processes severely affect the remains not completely burned or destroyed during the termination of settlement occupation. These remains normally consist of great quantities of ash from burned occupational structures and numerous still usable artifacts in behavioral contexts (de facto refuse). As such they are easily definable in the archaeological record and separable from surrounding archaeological remains. These qualities which render them so recognizable are the same ones that make them useful for household and especially activity area study. Therefore, a review of the nature of destruction strata in tells, and how and when they were formed is included here, along with a list of possible candidates for their causes and their formation, and what is preserved in them. It concludes with an explanation of why destruction strata are so useful for the present research.

Destruction levels in tells of the southern Levant often consist of thick, site-wide layers of ashy debris preserving the remains of cities, towns, or other settlements destroyed in fiery conflagrations resulting in an occupational hiatus. These destruction deposits preserve to an extraordinary degree the material environment of the local

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Some examples of sites where large archaeological exposures attest to the enormity and totality of settlement destruction include Arad strata XI, IX, VIII (Herzog, 1984; 1997; M. Aharoni, 1993: 82); Ashkelon, (Schloen, 1997: 222); Beer Sheva stratum II (Aharoni, 1973); Beth She’an, strata IX, VI, and IV (James, 1966; Mazar, 1997); Beth Shemesh, strata III (Mackenzie’s Red Burnt stratum) and IIc (Mackenzie, 1911; 1913; Grant, 1931; 1932; 1933); Tell Beit Mirsim phases B1 and A (Albright, 1943: 36, 65-68); Gezer strata XVIII and VI (Dever, 1997); Hazor strata XVI, XIII (upper), 1a (lower), and IV (Yadin, 1975; Ben-Tor, 1997); Lachish Levels III and II (Tufnell, 1953: 56-57); Megiddo, strata IX and VIIA (Loud, 1948; Ussishkin, 1997); and Tel Miqure/Ekron strata VIII and IB, (Dothan and Gitin, 1997). While this list is not exhaustive it does attest to the common occurrence of site-wide destructions in the southern Levant. More than half of the destructions included in this list date to the Iron Age II.
inhabitants – the specific places where domestic, economic, political and/or socio-religious activities took place. Thus, they provide excellent data for use by archaeologists attempting to reconstruct activity areas, the use of space, and ancient lifeways in general.

This is certainly news to no one, for destruction deposits have been used by archaeologists for well over a century to provide many of the details about ancient Palestine (e.g. Albright, 1949; Bliss, 1894; Lloyd, 1963; Petrie, 1891). However, the full potential of these deposits for yielding such information has never been realized. There has been no explicit attempt as yet to assess the limitations of destruction levels or strata for yielding information regarding systemic relationships characterizing past cultural systems or what these various systems may represent. The dissertation endeavors to move in this direction by collecting better and more detailed information about the past than has been done previously when utilizing destruction deposits. Retrieving better and more detailed information from archaeological data with less investment in time and energy is an increasingly important aspect of excavations in Syria-Palestine as research becomes increasingly problematic for a number of reasons. Not only are overseas digs arduous in the extreme, they are time consuming, they increasingly interfere with modern development, and the religio-political environment in which they are carried out increasingly is one of antagonism. These reasons, combined with the increasingly prohibitive cost of carrying out sustained archaeological research in Syria/Palestine, require that more detailed information be collected in archaeological investigations without sacrificing greatly the volume of archaeological material. An excellent starting point for the extraction of useful and considerable data is the study of destruction levels
Causes of Destruction Strata

Destruction levels in tells consist of the debris of cities, towns, and other settlements destroyed rapidly in fiery, settlement-wide conflagrations. They are very common occurrences in some periods and quite rare in others. The most common times/periods for site wide destructions include the Early Bronze III (Ai, Beth She'an, Tel Halif – three strata, Jericho, Yarmuth), the end of the Middle Bronze IIC (Acco, Aphek, Ashkelon, Dan, Gaza, Gezer, Hazor, Jericho, Kabris, Megiddo, Shechem, Shiloh), the Late Bronze IB (Tel Halif), the Late Bronze II/Iron I transition (Aphek, Beit Mirsim, Beth Shean, Beth Shemesh, Gezer, Hazor, Lachish, Megiddo), the Iron II A (Beth She'an, Gezer, Megiddo, Tell Rehov, Ta'anach), and the Iron IIIB-C including the later third of the 8th century BCE (Arad, Tell Beit Mirsim, Beer Sheva, Beth Shemesh, Gezer, Gibeon, Tel Halif, Tel el-Hesi, Lachish, Tell en-Nasbeh, Samaria, Timnah), and the late 7th/early 6th century BCE (Arad, Ashkelon, Jerusalem, Lachish, Tel Miqne/Ekron). While this list is not exhaustive, it demonstrates the common occurrences of destruction strata in tells.

There are two primary reasons for their commonness and both are related to the geographic location of Syria-Palestine.

The two primary reasons for tell destruction levels are natural disasters and warfare. The former are sometimes mistaken for the latter. The most notable natural disasters are earthquakes occurring at sites located in close proximity to active faults and rifts of which there are a number in the southern Levant. While Gezer and Jericho are
good examples of this kind of destruction for earlier periods (Iron II and Middle Bronze Age II respectively), these more commonly are identified with sites existing after most tells are abandoned (e.g. Banias, Beth She'an/Scythopolis, Hisham's Palace near Jericho, Jerash). But most destruction levels in tell sites in the southern Levant, including those mentioned in the previous paragraph, are caused by warfare.

The debris of settlement-wide conflagrations most often is produced during sieges associated with military campaigns carried out against the local inhabitants of the southern Levant by their neighbors or through endemic warfare (neighbors include Egypt, Anatolia, Mesopotamia, Persia). Numerous destruction levels are diagnostic of tells in the region but are not as common in tell sites outside of the southern Levant. One of the primary reasons for this must be related to its geographic location as a corridor linking the three continents of Africa, Asia, and Europe and between two major "hearth"s of civilization.

The southern Levant lies at the geographical periphery of its larger (political complexity, economically, demographically) neighbors in Mesopotamia, Syria, and Egypt. Throughout much of antiquity, it provided the only passable land bridge linking these regions and their diverse commodities, technologies, and natural resources. More importantly it linked the major urban centers in the areas where the earliest states arose at precisely the time tell formation began in the southern Levant. These states and urban societies, including over the next several millennia (ca. 3500 – 400 BCE) Egypt of the Old, Middle, and New Kingdoms, the Hittites of Anatolia, the Assyrians and Babylonians of Mesopotamia, and the Achaemenids of ancient Persia, all vied for control of this land
corridor as substantial economic benefits accrued to those controlling the travel, commercial activities, and trade passing through the environs of the southern Levant. Desire to control this area often brought these societies into conflict not only with one another but also with the local populations. These locals, though often not possessing the same access to economic and especially military resources, sought in addition to their autonomy the same economic benefits pursued by their often larger, and more powerful neighbors. The resulting conflict ultimately led to two of the most diagnostic features of tell development: 1) substantial fortification systems and 2) site-wide destruction layers. While the local populations most often were responsible for the fortifications, those responsible for settlement destructions vary through time.

Some of the earliest destruction levels from tells occur during the Early Bronze Age (ca. 3500 – 2000 B.C.E.) especially around the end of the Early Bronze Age III (ca. 2500-2250 BCE). A number of hypotheses have been ventured regarding these destructions, including Amorite invasions and migrations from the north, ecological explanations where intensified competition for dwindling resources led to constant endemic warfare, or Egyptian incursions (Gonen, 1992: 123 - 24). While endemic warfare seems likely, there is convincing evidence that the Egyptian Pharaohs of the IV and V Dynasties of the Old Kingdom also caused destructions as Dynastic Egypt showed early signs of imperialist expansion at this time (Yadin, 1963: 54-57). However, evidence is less equivocal of Egyptian involvement during the next period of wide-spread destruction levels in the southern Levant.

After the Early Bronze III, the next period contributing widespread destruction
strata in tells occurs at the end of the Middle Bronze Age or the Middle Bronze IIC or III (ca. 1550 – 1500 B.C.E.). Indeed virtually every excavated tell with Middle Bronze Age IIC remains exhibits at least one, but often multiple destructions. Some sites yield as many as three destruction strata all occurring in the very short span of approximately 50 years. These destructions are interesting as the Middle Bronze Age is the greatest period of urbanization in ancient Palestine prior to the Hellenistic and Roman periods (cf. Dever, 1977; 1987; Ilan, 1995; Kempenski, 1992a; 1992b; 1992c; Mazar, 1990: 174-231). One of the most diagnostic features of its urban settlements is the massiveness of its frequently occurring fortifications, including thick wall systems made of cyclopean masonry, dry moats, glacis structures, and massive tower and gate structures (cf. Finkelstein, 1992; Kaplan, 1975; Kempenski, 1992b; Parr, 1968; Pennels, 1983). In spite of these massive efforts, most settlements succumbed to attack and were thoroughly destroyed.

These destructions usually are associated with the Egyptians of the New Kingdom. The last pharaoh of the XVII dynasty and the early pharaohs of the newly founded XVIII dynasty expelled the Asiatic Hyksos rulers of the XV dynasty from the Nile Delta and ushered in a renewed period of Egyptian prosperity (Dever, 1990; Weinstein, 1975, 1991). With this prosperity Egypt turned an interested eye to Syria-Palestine. A short time later, the pharaohs of the XVIII Dynasty boast of great campaigns in Syria-Palestine on the temple walls of Karnak, Luxor, and others temple complexes (see e.g. Redford, 1979). The nature of these campaigns may have been reprisals or revenge against the once powerful Hyksos kings (Weinstein, 1981) or Egyptian colonization efforts in Palestine (see Dever, 1987; Weinstein, 1981). Apart from
Egyptian activities, destructions also may have been caused by general upheaval resulting from economic instability or other political, economic, and social factors in the southern Levant itself (Ilan, 1995: 314 - 15; Knapp, 1989; Marfoe, 1979).

It is not necessary to associate all Middle Bronze IIIC destructions directly with Egyptian campaigns. It is possible that the Hyksos rulers displaced from the Nile Delta may have caused disruptions and destructions as they tried to find places of new residence north and east of the Egyptian Delta. Shortly after the end of the Middle Bronze Age IIIC it is possible also that excursions south by the Hittites of Anatolia may be responsible for destructions as well, especially in Syria, as the Hittites were expanding their interests southward (Gorny, 1989, 1995; Gurney, 1954).

The next period of at least moderate destruction activity contributing numerous destroyed levels to tells is the Late Bronze Age. While the destructions from this period are a bit less common and temporally more sporadic than the previous period, they occur nonetheless. Again the Egyptians can be blamed, at least indirectly, since the southern Levant is under their hegemony throughout most of this period. As overlords of the southern Levant during this time, they kept a hand in most local occurrences. This is especially well demonstrated by the el-Amarna documents. These consist of letters addressed to different pharaohs of the XIX Dynasty from various petty potentates of the local Levantine city-states (Albright, 1974: 483 - 90). The letters are characterized by continuous groveling by the locals at the feet of the Pharaoh and squabbling and bickering between and among themselves. They constantly seek Egyptian interference in local goings on, especially in the form of military aid against their neighbors by whom they
have been wronged. Neighbors are accused of stealing land and towns, kidnapping members of a neighboring city state’s royal household, taking someone else’s subjects as slaves, or carousing with an unruly and uncivilized element referred to as the ‘apiru (Leonard, 1989). This last element is probably a group of landless brigands taking advantage of the instability allowed to exist by Egypt (Borger, 1958; Greenberg, 1955; Liverani, 1979; Rowton, 1965). The letters make it clear that endemic warfare was epidemic throughout this period and was of little concern to the Egyptians. In fact, it was probably in their best interest to keep the local rulers turned against one another instead of against Egypt. So other likely candidates for destruction of cities at this time are the local city populations fighting among themselves with possible intervention by Egyptians garrisoned in the southern Levant or perhaps the ‘apiru who are reported to take advantage of situations leading to their profit against more settled folk (Albright, 1974).

Attacking and destroying settlements during this period is probably not as complicated as in preceding or subsequent periods since fortifications are not a common occurrence.

The Late Bronze Age is not a period noted for the construction of widespread fortification systems. Indeed no new fortifications are known to be constructed during this period, with the possible exception of Gezer (Dever, 1984, 1986, 1993; contra see Bunimovitz, 1983; Finkelstein, 1981, 1986; Kempenski, 1972, 1976; Wightman, 1986). Where fortifications existed, they consisted of re-used elements of exposed earlier Middle Bronze Age fortifications. It is possible that the Egyptians prohibited the construction of new fortification systems as part of their efforts to administer and control the southern Levant as a province. Regardless, one result of the absence of new fortification systems
and the depressed and grovelous state of the rulers of the semi-independent city-states is
that less organization was required and fewer individuals were necessary than in the
preceding Middle Bronze Age or the succeeding Iron Age (13th–6th centuries B.C.E.) to
successfully attack and sack a Late Bronze Age settlement.

The period between the end of the Late Bronze Age and the beginning of the Iron
Age (13th–12th centuries B.C.E.), as revealed archaeologically, is characterized by
sporadic destructions. It has received at great deal of attention due to the general
upheavals throughout the eastern littoral of the Mediterranean at this time (see, e.g.,
Bourke and Descoeudres, 1995; Gitin et al., 1998; Gonen, 1984, 1992; Sanders, 1987).
Also important, and related to the general unrest in the area, is the appearance of new
peoples in the southern Levant at this time. These most significantly include both the
Philistines, who invaded the coastal plain (Dothan, 1982; Dothan and Dothan, 1992), and
the Israelites or “proto-Israelites” who settled in the Central Hill Country (Bienkowski,
Because of the general upheavals indicative of the period, and the appearance of new
elements previously not mentioned in texts, it is hard to know who is responsible for the
early Iron Age destructions. Egyptian pharaohs boast of campaigns against Syria-
Palestine probably aimed at re-gaining territories lost at the end of the Late Bronze Age.
The best example of this is Merneptah’s boast of destroying towns, subjugating
geographical areas, and decimating entire Levantine peoples (Bimson, 1991; Hasel, 1994;
Kitchen, 1986; Yurco, 1982; 1986). While Merneptah may have campaigned
successfully in Syria-Palestine, he would have been one of the last Pharaoh’s of the New
Kingdom to do so on a large scale (see Kitchen, 1986; Redford, 1992). One would be hard-pressed to associate destructions after his rule with the Egyptians. However, one need not look outside the borders of the southern Levant to find a likely candidate for these destructions.

The population movements alluded to above (i.e. Philistines as well as other Sea Peoples) and the appearance of new folk in new areas (i.e. Israelites/proto-Israelites in the Hill Country) could have caused destructions of tell settlements. Ramses III notes aggressive insurgence attempts into Egypt by the Sea Peoples and briefly documents their travel through the coastal areas of the southern Levant, a place one of their members, the Philistines, ultimately settled (Edgerton and Wilson, 1936; Kitchen, 1982; Malamat, 1971; Redford, 1992). It is hard to believe these events occurred without leading to conflict between the Philistines (and perhaps others of the Sea Peoples) and the local populations of the southern coastal plain and the neighboring Shephelah. It also is likely that peoples displaced from the coastal plain by new settlers may have moved inland causing clashes/warfare in these areas and perhaps leading to the destruction of settlements (e.g. Lachish). On the other hand, biblical texts claim that the earliest progenitors of settled Israel destroyed a number of settlements as they moved into the southern Levant. Sites mentioned in biblical texts and known archaeologically reveal destruction levels dating to this period including Beth Shemesh, Gezer, Hazor, Lachish, and Megiddo (Mazar, 1990: 287 - 89; 328 - 38). But these texts are much later than the events which they describe and are among the least useful for historical reconstructions (Dever, 1990; 1998b; Miller and Hayes, 1986; Na’aman, 1994; Pippin, 1996). A number
of other settlements are claimed to have been destroyed but were not significantly occupied when these events are purported to have taken place (e.g. Jericho, Ai).

However, when all of the evidence is taken together, including the Egyptian textual evidence, the biblical data, and the archaeological record, it is demonstrative of general upheavals and sporadic, endemic warfare during the Iron Age I.

In the next period, the Iron Age II (ca. 900- 580 B.C.E.), destruction levels are more prevalent. These can be subdivided further into three temporally distinct units including the last quarter of the 10th century B.C.E.,9 the last third of the 8th century B.C.E., and the end of the 7th/beginning of the 6th centuries B.C.E. To a degree these destructions are better understood, especially in the case of the latter two because the deposits in tells that contain their remains are nearer the top of tell sites. Additionally, all three are well described in a number of textual sources and/or represented iconographically on the walls of palaces and temples in Mesopotamia or Egypt.

The first of these destructions, those occurring in the 10th century B.C.E. most often are associated with the Egyptian Pharaoh Shishak of the Saite or XXII<sup>nd</sup> Dynasty (Kitchen, 1986; 1989). This Pharaoh apparently was able to stop the downward spiral of Egyptian power long enough, and maintain adequate political stability, to campaign briefly in the southern Levant. He boasts of this ability on the walls of the Karnak temple

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9 The materials which traditionally have been dated to the 10th century B.C.E. are now being pushed down into the 9th century B.C.E. (Finkelstein, 1996; 1998; 1999; Ussishkin, 1980; Thompson, 1992; 1999; contra see Ben-Tor and Ben-Ami, 1998; Holladay, 1986; Mazar, 1997; 2000; Stager, 1998). While there is wide agreement among archaeologists on the relative sequence of materials concerned, there is less agreement concerning anchoring these materials to absolute dates.
complex and mentions a number of settlements in the Levant which also happen to yield
destruction materials from the time period he claims to have campaigned – ca. 918 B.C.E.
(Dever, 1997c; Kitchen, 1986). These sites include Arad, Beth She’an, Gezer, Megiddo,
and Rehov among others. Megiddo especially is noteworthy in this list since it appears to
have functioned as a staging point for the Egyptian campaign (Kitchen, 1986; Redford,
1992). A fragment of a monumental inscription bearing Shishak’s cartouche was
discovered during excavations at the site.

However, sources other than Shishak’s campaigns could account for a number of
destructions. Warfare between a number of small factions or petty states likely was
prevalent during this time. The 10th century B.C.E. for the ancient Near East is a time
when the traditional powers (i.e. Egypt, Anatolia, Assyria, Babylonia, Persia), due to
internal weaknesses, were unable to control, dominate, or directly influence events in the
Levant. In the forming power vacuum, local city states or possibly previous rural
populations aggressively expanded their borders and attempted to maintain control over
trade and traffic passing through their territories. Some managed to expand, control, and
maintain areas large enough, and eventually reach a level of socio-political complexity
high enough, that would allow their consideration as small polities (Frick, 1985;
Portugali, 1994). Although dating from a much later period, biblical texts record warfare
among a number of peoples/small states which are dated to this time including ancient
Ammon, Aram-Damascus, Israel, Moab, Philistia, and Phoenicia (Bienkowski, 1992;
Herr, 1997). Some biblical texts seem to preserve memories of these events in a
condensed form and perhaps have attributed them to a smaller number of individuals and
exaggerated their extent. Such events and situations could explain some of the archaeologically known destructions.

Much of what has been written to this point about destruction levels in tells is slightly firmer than educated speculation concerning the methods of destruction and who exactly or what event is responsible for their cause. This generally is not true of destruction layers that occur after the 9th century B.C.E., as much more archaeological data are available from this period onward. But just as significant is the greater availability of a number of disparate data sources useful for understanding the past. These include archaeological data and a number of textual sources, including some that are "curated," or redacted, over a long period of time. Others directly reflecting the time of the events to which they relate and sometimes include multiple copies of the same text or different texts describing the same event, or even texts from opposing sides telling two somewhat different sides of the same event. In addition, a great deal of iconography dating to this period is available, depicting scenes very useful for understanding the attack and subsequent destruction of ancient settlements of the southern Levant. These most often come from the palaces of especially Assyrian kings but also of Babylonian and Persian rulers. These sources, when used in conjunction with one another, help greatly to understand destruction strata dating from periods following the 9th century B.C.E. While the danger of circularity exits in some instances (e.g. archaeology confirms the Assyrian annals, the Assyrian annals confirm the biblical texts, and the biblical texts confirm the identification of archaeological material), the data nonetheless are very useful in reconstructing events leading to the formation of destruction levels in tells. For this
reason, and because the Tel Halif destruction stratum used in this study falls into this time period, greater emphasis is given to understanding the genesis of these destruction levels. This emphasis begins with the next period represented by widespread destruction levels in tells – the latter third of the 8th century B.C.E.

Virtually every site in the southern Levant yielding remains of late 8th century B.C.E. settlements does so in the matrix of fiery destruction debris extending across the entire settlement. Most of these settlements, including small border fortresses, villages, towns, regional centers, and royal administrative centers are massively fortified atop tells or natural rises and include elements of single or double wall systems, glacis structures, towers, fortified gateways, and internal water systems. Many of these elements help to preserve and protect the other artifactual remains and structures which they encompass. The remains of some structures are preserved to an extraordinary degree, with building walls continuing to stand over two meters in height and with doorways into and out of buildings preserved with the lintels intact (e.g. Lachish). Among the living debris preserved in many such structures are large quantities of metal arrowheads and ballista stones in addition to a number of scale armor plates and at least one mass burial, all attesting to the warlike conditions under which many of these settlements were destroyed (in general see Ussishkin, 1982; Yadin, 1963).

A compelling case can be made for many of these destructions occurring at the hands of the highly aggressive Neo-Assyrian Empire of the late 8th century B.C.E. Their textual remains and iconography attest to the great importance they placed on the role of warfare for imperial expansion (O'Connell, 1995; Ussishkin, 1982; Yadin, 1963). By the
8th century warfare had assumed a primary role for them as they built an empire based upon expansion through a relentless series of military expeditions designed to extort huge tributes from their neighbors, both near and far, after reducing them to vassal or provincial status (Grayson, 1992; Roux, 1964; Luckenbill, 1927). Successful Assyrian campaigns along their periphery often were completed with the local rulers left in place to supply the demanded, often lofty, tributes on a continual basis. The local ruler was left in place so long as he proved reliable in providing the requisite goods and services demanded by the Assyrians (O’Connell, 1995: 145 - 50). However, failure to meet these demands brought new reprisals leading often to the utter destruction of the rebellious or delinquent parties (see Hograth, 1950: 25; Roux, 1964: 258). Tribute then was procured for the Assyrians in the form of loot or booty. The Assyrian war machine proved extremely effective in this strategy.

The Assyrians maintained a large and formidable army whose exploits throughout the 9th and 8th centuries B.C.E. allowed it to cow its neighbors into submission, often without wielding its mighty force. However when necessary, the Assyrian army proved only too effective. Its war machine included archers, slingers, cavalry, spear men, chariotry and a host of soldiers involved in the operation of its most important tactical weapon - siege warfare. The Assyrians were the first true masters of siege craft and perfecter of its most serviceable implement, the battering ram (O’Connell, 1995: 122).

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It has been argued that the Assyrian empire was a polity that came to be driven by war; that in the final stages of empire, armed aggression was pursued virtually as an end in itself – primarily as a means of acquiring the tribute and human resources necessary to undertake still more campaigns (O’Connell, 1995: 146).
These rams were used effectively to pulverize defenses by undermining the base of defensive walls. The resulting breaches allowed entry points through which the Assyrian soldiery could pour into the defended settlement. In addition to rams, the army employed scaling ladders, earthen approach ramps, and undermining tunnels. The Assyrian war machine was so overpowering in this tactic that few cities survived its campaigns. Once a city was conquered by force, it was generally looted, sacked, and burned (Goudsblom, 1992: 64). Its occupants were either killed, taken into slavery, or pressed into service. Often entire populations were deported from an area (Na‘aman, 1993; Younger, 1998).

Some time around the middle of the 8th century B.C.E., the Assyrian policy of deportation took on massive proportions (Ahlstrom, 1993; Na‘aman, 1993; Oded, 1970). Rebellious vassalages and provinces were depopulated through deportation of the bulk of their populations to different provinces and territories throughout the Neo-Assyrian empire, effectively curtailing further rebellious activity in a specific area. While this strategy proved effective in the short run, its long term effects undermined the economic basis of the empire as it curtailed production, and therefore tribute and taxes throughout the provinces. Additionally, it never effectively stamped out rebellion in Assyria’s conquered territories.

There often were attempts to counter the military advantages of the Neo-Assyrians. As early as the mid 9th century B.C.E., complex alliances were made among numerous small states throughout the Levant in an attempt to check the Assyrian advance. Additionally, vassals tried through opportunism to cast off the yolk of Assyrian hegemony, seizing moments when questions of succession hung in the balance as Assyria
turned its interests inwardly after the death of a king (e.g. the death of Sargon II) (Luckenbill, 1927; Roux, 1966). Vassals and provinces also sought alliances with a weakened Egypt (Na’aman, 1991: 80-98) and the fledgling state of Babylonia in the 8th and 7th centuries respectively. Babylonia proved a good choice as it eventually usurped the Neo-Assyrian empire’s control in the Eastern Mediterranean, and in its stead reigned supreme throughout its conquered territories. Thus, the Neo-Babylonians became the benefactors of the taxes, tribute, spoils, loot, and booty channeled from the territories of the Levant into Mesopotamia.

For the most part the Neo-Babylonian empire continued the policies of the Neo-Assyrian empire until it collapsed at the end of the early 6th century B.C.E. (Roux, 1964). They demanded tribute from their vassals and provinces, removing or changing local leaders only when disruptions and rebellions demanded such actions necessary. The Babylonian kings campaigned against its neighbors when necessary with the same ferocity and effectiveness as the Assyrians. They left massive destructions in their wake (e.g. Ashkelon, Miqne/Ekron, Jerusalem), sometimes deporting large numbers of people (e.g. the peoples of Judah in three distinct phases according to biblical texts). In many respects their military machine resembled that of the preceding Assyrians’ making effective use of siege technologies. However, unlike the Assyrians they proved less than able administrators of their conquered territories, and consequently, only influenced events directly in the Levant for less than a century. While there, they produced a marked affect on many Levantine settlements, from the total destruction of individual cities, towns, and villages, to the full scale removal of peoples, leaving many settlements abandoned for long periods of time.
The Neo-Babylonian and Neo-Assyrian destructions, as well as destructions caused by peoples living millennia before their appearance, impacted greatly the formation of settlements and ultimately tells in the southern Levant. Military activities and warfare, both endemic and long distance, not only provided the destruction levels so prevalent throughout the history of tells, but dramatically influenced the formation of site structure in other ways. Most importantly, the commonness of destruction strata in tells well attests to the volatility of life in the southern Levant during the millennia tells were occupied. The archaeological records of tells and textual evidence suggest that one never knew when invading armies from the south or the north would again lay siege to the local settlements or when one's own neighbors may turn hostile, attacking for economic gain, revenge, or other possible reasons. This volatility led to the development of massive fortification systems beginning already in the Early Bronze Age, reaching their most massive proportions during the Middle Bronze Age, and continuing throughout the Iron Age. These fortification systems, when incorporated into an archaeological context, served to promote site stability by keeping intact the cultural deposits laid behind them. Thus warfare, especially siege craft, created destruction levels in sites and provided barriers, provisionally keeping the sites intact. As such, they provide a rich archeological record to address issues regarding past activities and settlement organization at tell sites. While the cause of destruction strata has been established as the fiery destruction of occupied settlements through endemic or long-distance warfare, the materials preserved in these destructions and what can be learned from their analysis has not been discussed. Already mentioned is that these levels consist of the debris of cities, towns, and other
settlements destroyed rapidly in fiery, settlement-wide conflagrations. But what exactly is included in this burned debris?

Refuse Preserved in Destruction Strata

Most of the debris contained in destruction strata consists of the remains of burned buildings destroyed after a settlement fell to an attacking opponent. These buildings include administrative, cultic, and domestic structures of varying forms. The building and living materials preserved in destruction strata include most prominently stones and burned or baked mudbrick (both whole and detritus) introduced usually from the walls and sometimes the roofs of buildings, and ash from burnable materials such as timbers and thatching used in roofs, structural beams such as columns, pilasters, and lintels; additional wooden items including furniture, looms, and other implements; food for human and animal consumption (oil, wheat, barley, dried vegetable and fruits, lentils, meats, fish, etc.); fuel for cooking fires (dung, sticks, vines, etc.); and possibly cloth mats, bedding, and rugs; and any number of other things including animals or people that may not have escaped the conflagration. To a lesser degree other artifacts and refuse are present in destruction levels including burned plaster and items placed in plaster and mudbricks, possibly serving as temper (e.g. pot sherds and small pebbles or cobbles), and discarded artifacts in behavioral, secondary, or even archaeological contexts. However, the most interesting items for the present study preserved in destruction strata are the large quantity of complete or restorable artifacts found throughout the destruction debris in use and storage contexts.
A great quantity of artifacts still usable at the time of settlement destruction normally are found spread throughout the debris of burned structures. These include metal and stone tools and weapons, caches of precious metals (ingots, goddesses, jewelry, etc.), bone tools, sometimes wood tools, bullae, stamp seals, items of personal adornment, loom weights, spindle whorls and other lithic tools associated with food production, scale weights, bottle stoppers, ivory inlay, religious paraphernalia and objects, and especially a large quantity and variety of ceramics.

The appearance of numerous artifacts in destruction contexts stems from the rapid abandonment of the houses, public buildings, and outside spaces where the artifacts were in use at the time of settlement destruction. Occupants who survived destruction of settlements likely had little time to remove household items (Rosen, 1986: 92). Also, artifacts left within such a context may be sealed by the deep accumulation of ash and other burned debris. Collapse from mudbrick walls protected artifacts on floors (especially close to walls) and immediately adjacent to the outside of buildings by covering them rapidly with a protective layer of sediment. Furthermore, subsequent occupational floors seal burned structures and debris rendering them less subject to activities associated with curate behaviors and scavenging and also to natural disturbances prevalent in other open air sites. Where re-occupation is not immediate and natural phenomena begin the processes of re-deposition of sediments through sheet wash, erosion, and ponding, some disturbance can occur. However, this often is kept to a minimum since the structural integrity of the mound is provided by the very common and stable remains of partially destroyed structural walls. Thus, many household items are
preserved on living floors or within the matrix of the covering destruction debris appearing of be in or near the locations they were used or stored when active in a behavioral system at the time the settlement was destroyed. This “appearance” is exactly what needs to be tested.

Refuse found in similar settings elsewhere has been termed “de facto” and consists “of artifacts from the systemic inventory [or behavioral context], often still usable, that are left behind on occupation surfaces when people abandon activity areas, structures, and settlements” (Schiffer, 1985: 18; cf., Schiffer, 1972: 160, 1987: 89; Stevenson, 1982). When abandonment of de facto refuse is caused by warfare, normal abandonment processes are truncated as material remains of the systemic inventory in a behavioral context are rapidly transformed to site context (Schiffer, 1985: 26, 31). When R. Ascher wrote that archaeologists do not dig up “the remains of a once living community stopped, as it were, at a point in time” (Ascher, 1961: 324) it was not with the remains preserved in destruction strata of tells in mind. However, his observations concerning the ravaging of archaeological remains by “time’s arrow” are every bit as poignant to the discussion of tell destruction strata and their interpretation as they are to any other type of archeological deposit.

R. Ascher’s comments were directed toward archaeologists who approach the archaeological record as a preserved past instead of a record that just as often preserves the disorganized arrangement of matter regularly generated at a point in time much later than that of interest to the archaeologist (Binford, 1981: 196). Later it was discussed also that not only were items disorganized but they also were patterned at a point much later in
time (Schiffer, 1972, 1983). Ascher terms such erroneous notions which do not account for time’s ravages, often implicit in archaeological literature, as the “Pompeii Premise” (Ascher, 1961: 324). This occurs when archaeological remains are treated as if they are frozen in time, similar to remains from sites like Pompeii, Herculaneum, and Akroteri, and directly reflect behavioral systems of interest to the archaeologist. The very nature of artifact rich de facto assemblages often causes them to be treated as Pompeii-like assemblages when interpreted (see e.g. Hill, 1970 as pointed out by Skibo et. al., 1989). The interpreters of materials from tell destruction strata also are guilty of treating their artifact rich assemblages in similar manners. Though time’s ravages usually do not affect dramatically all deposits in destruction levels of tells, which often contain numerous artifacts as items in systemic inventories, they nonetheless are not Pompeii-like assemblages. Thus it is not assumed here that the archaeological remains left by destructions are complete or that these materials reflect directly all or even most of the behaviors taking place where various artifacts were discovered (see Binford, 1981; Schiffer, 1985 further for the dangers of the “Pompeii Premise” in archaeology). Assuming such would not account for any depletions of the archaeological record through curate behavior or other processes, both natural and cultural, leaving patterns in the archaeological record which have no bearing on ancient behaviors of interest to investigators – even in very well preserved archaeological deposits like destruction levels in tells. For this reason the spatial analysis outlined in Chapter I is used to analyze the

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Incidentally, the deposits of Pompeii itself are not “Pompeii-Like” as they do not preserve all items in a behavioral context, thus fossilizing human behaviors.
remains excavated from the destruction Stratum VIB at Tell Halif. But despite the caveat of the Pompeii Premise, the remains of a destroyed pillared dwelling at Iron II Tell Halif are filled with *de facto* artifacts and other remains in a behavioral context and, as such, are useful for understanding domestic activities. It is important to understand what types of processes, especially those associated with abandonment, led to the formation of such a rich archaeological record.

As mentioned above abandonment caused by warfare should truncate all normal abandonment processes, such as curate behavior, while setting in motion others (Schiffer, 1985: 31). In the Iron Age southern Levant, there were three ways of dealing with warfare directed against one’s settlement: submission, flight, or resistance (O'Connell, 1995: 97). Each of these should leave different patterns, if only slightly so, in the archaeological record. Regardless of the choice one made to deal with military sieges, some processes undoubtedly occurred which deplete the archaeological record, especially through some type of curate behavior. These could range form flight with nothing more than the clothes on one’s back to everything that could be taken away from a settlement in a matter of days or perhaps weeks. Other activities leading to depletions of systemic inventories especially include looting or theft after a settlement was taken. Depending on the thoroughness of this activity substantial depletions could occur and patterns indicative of normal daily activities could be all but erased as new ones are introduced. Even when activities associated with everyday life are identified, they must be suspect for “during the siege itself, which may have lasted for months, normal activities would have been disrupted and the location of artifacts would not necessarily be a one-to-one reflection of
the location of normal daily activities” (Rosen, 1986: 92). Abnormal circumstance well outside the pale of everyday activities certainly abounded in these conditions. So, the interpretation of destruction deposits in tells is not as straightforward as it might first appear.

All of the processes outlined above are active on destruction strata and therefore complicate their use for understanding the past. However, it still remains that the materials preserved in destruction levels in tells provide an excellent opportunity for learning detailed information about many aspects of past societies. This is demonstrated below by a review of the pillared dwelling as known already through archaeological investigation. Most of the material data discussed below derive from destruction strata in tells.

The Pillared Dwelling

The remains of many Iron II pillared dwellings have been excavated from destruction strata in tells from the southern Levant, including those from Tel Halif. From these types of remains much has been learned of the description, origins, and subsequent spread of the pillared dwelling throughout the southern Levant. The current understanding of the identification, description, origins, construction and components of the Iron Age pillared dwelling as revealed archaeologically is based primarily on these types of remains. However some do not originate from destruction strata or tell sites.
Identification

In the archaeological and biblical literature of the ancient Near East, the domestic structures of the southern Levantine Iron Age usually are referred to as “three-room,” or “four-room houses,” “Israelite houses,” or “Palestinian houses.” (cf. Aharoni, 1973; Beit-Arie, 1973; Braemer, 1982; Holladay, 1992; Netzer, 1992; Shiloh, 1970; 1987). The first two terms refer to the two major subtypes of the Iron Age domestic structure and each of the latter terms includes both of the former. This kind of dwelling was first associated with the Israelites based on its numerous occurrences inside the borders of what later (at least by the 8th century B.C.E.) became the small states of Israel and Judah (cf. Shiloh, 1970; Wright, 1978; Beit-Arie, 1973; Herzog, 1984). While these structures are prevalent in this geographical area, indeed they appear to be the standard, they are not exclusive to that area and examples are known from outside of ancient Israel’s and Judah’s borders and include the coastal plain (e.g., Tell es- ‘Sera, Tel Qasile, and Timnah/Tell Batashi – respectively Oren, 1978: 1064; Mazar, 1980: 74; Kelm and Mazar, 1979) and Transjordan (e.g., Tell el-u’Meiri, Sahab, and Tell es-Sa’idiyeh – respectively Herr, 1997; Ibrahim, 1975: 74-75, fig. 3; Pritchard, 1985). In this section, the pillared dwelling is described as it has been revealed archaeologically. First, its plan is discussed in detail and then its origins and subsequent spread throughout the Iron I and Iron II communities of the southern Levant are reviewed. This is followed by a examination of the pillared dwelling’s various components as understood through archaeological investigation. Finally, a summarizing statement attempts to briefly impart the state of our knowledge currently about the Iron Age dwelling.
Description

The domestic dwelling of the Iron Age is well known archaeologically (see e.g., Aharoni, 1973; Beit-Arieh, 1973; Braemer, 1982; Holladay, 1992; Netzer, 1992; Shiloh, 1970; 1973; 1980; 1987; Stager, 1985; Wright, 1965; 1978; Wright, 1985). Shiloh reports more than 155 examples excavated prior to 1987 (Shiloh, 1987: 3) and the number has now increased by half again as many. Excavation reveals an astonishingly uniform dwelling, normally comprised of a rectangular or rectilinear compound divided into a long broad room or rooms set across the compound's rear and two or three long narrow rooms/chambers extending through the remainder of the space perpendicular to the broad room(s) (see Figs. 3 and 4 in Chapter III). The long room/chambers often are divided by 3-4 evenly spaced pillars and one of these chambers may or may not serve as an open courtyard (more on this below). Entrance to the compound is through a doorway normally placed in the short wall opposite the broad room(s) and aligned with the central long room/chamber in the four-room version of the house or the wider of the two long rooms in the three-room version (see Figs. 3 and 4 in Chapter III). The size of the compound generally ranges from 35 m to 80 m square and in rare examples may be more than 100 m square. The median, however, is around 40-50 m square (see Pritchard, 1985: 30-31). The dwelling, in this form, became the standard house type for much of the southern Levant during the entire 600 years of the Iron Age. It even survived the dramatic demographic and socio-political reorganization (see Portugali, 1994) taking place during this time. This longevity and durability attest to the success with which the dwelling's plan and features continued to meet the needs of the inhabitants of the
southern Levant throughout the Iron Age. These needs are better understood by briefly reviewing the history of this dwelling type along with its construction and features.

**Origins**

The origins of the pillared dwelling have not been well understood. Since this dwelling type is quite different from that of the largely urban Canaanite population of the preceding Late Bronze Age, notably the courtyard house (see Daviau, 1991; 1993; Oren, 1984; 1992), early attempts to find its origins looked outside of Judah and Israel proper. Scholars suggested it had been introduced to the southern Levant by either the Philistines or the Phoenicians. Early examples of the dwelling from the 11th cent. B.C.E. discovered at Tell Qasile (Mazar, 1980: 74-7), Tell Batash (Kelm and Mazar, 1985: 1995), and Tell Sera (Oren, 1978: 1064), sites within the traditional borders of Philistia, were cited as evidence by Oren that the dwelling was introduced into the southern Levant by the Philistines after which time it was adopted by peoples to the east (Oren, 1978: 1064). G. E. Wright saw the dwelling as a North Israelite type house only, and thus assumed it was probably introduced by the Phoenicians and subsequently borrowed by the Israelites during the early Iron II (Wright, 1978: 154; cf. G.R.H. Wright, 1985). By comparing the pillared dwelling with architectural forms from Lebanon, Syria, and Anatolia, Braemer also sought origins to the north (Braemer, 1982).

The most current data, however, point to an indigenous origin. The earliest known examples of the pillared dwelling appear in the 12th cent. B.C.E. and are found in the Hill Country north and west of Jerusalem (e.g., 'Izbet Sartah: Finkelstein, 1988) and
in the Negev Desert (e.g., Tel Masos; Fritz and Kempinski, 1983). Their appearance in these areas coincides with the new and rapid settlement of these areas. In the beginning, they appear isolated or in small clusters in an area largely uninhabited prior to this time. Their sudden appearance likely is related to several innovations or the adoption of new land-use strategies that allowed the exploitation of previously inhospitable highlands and semi-arid desert. The most important of these innovations included clearing the hillsides for large scale terracing of the Hill Country coupled with a great increase in underground food and water storage facilities. The latter was made possible by harder tools (high quality bronze and possibly some iron) and the use of water-proofing plaster. Both innovations are well attested in the archaeological record and dramatically changed the carrying capacity of the land from the northern Hill Country to the Negev desert, resulting in a quick settlement of the land (in general, see Hopkins, 1985).

The rapidity of the settlement of the highlands and semi desert environs, along with the positioning of the pillared dwellings in settlements approximating circular or semi-circular clusters led a number of scholars to identify their inhabitants as settling pastoral nomads (early or proto-Israelites?) (Fritz. 1977: 60-64; Fritz and Kempinski, 1983: 34-38; Herzog, 1984: 76; 1994; Finkelstein. 1988. 1994; Finkelstein and Na’aman, 1994). To these scholars the newly settled folk were locating their houses as they once had placed their tents – in an circular encampment protecting both humans and livestock. To these scholars, the origin of the domestic dwelling should be sought in the tents, booths, and/or huts of the pastoral nomads. However, for others, the origin may come from a different source.
Others see no reason to look for its origins in a nomadic tent or booth. They see the new highland and desert settlements culminating from the efforts of people from the lowland Canaanite urban centers, perhaps displaced peasants in search of autonomy of sorts (see e.g., Mendenhall, 1973; Gottwald, 1979). Netzer’s view that the pillared dwelling grew out of Canaanite antecedents which included a simple broad room and a courtyard lend support to this idea (Netzer, 1992: 195 cf. Stager, 1985: 17). Additional support includes the presence of a material culture at the majority of Iron I sites that is well integrated into Canaanite culture (Kempinski, 1978; Mayes, 1997: 61). Shiloh also associates the origins with an urban phenomenon. He understands it as developing locally in conjunction with the casemate fortification systems (Shiloh, 1987). While this is plausible it needs further confirmation. Perhaps the Iron I fortresses of Transjordan, in the Madaba region, will provide important support for Shiloh’s theory (see Herr, 1997). While none of these stances can claim a consensus it now seems likely that the pillared dwelling is indigenous to the area of the southern Levant, proliferating in the small, spatially liberal Iron I settlements of the Hill Country and Negev deserts as its inhabitants exploited a previously unsettled environment. The success of the settlers is attested in the ever increasing size and number of the settlements. This success is paralleled by the success of the pillared dwelling which rapidly becomes the dominant domestic structure for much of the southern Levant, especially in the geographic areas that later become associated with the small Iron II states of Israel and Judah.

While many of the Iron I settlements were abandoned at the end of the Iron Age I (early-mid 10th century B.C.E.), especially in the more marginal areas of the Hill Country
(e.g., Ai, Izbeth Sartah, and Ebaal) and the Negev (e.g., Masos, Malhata), others grew into the more centralized and lager fortified villages, towns, cities, and fortresses of the Iron II (10th - 6th centuries B.C.E.). In virtually every Iron II settlement whose town plan is well known archaeologically, the dominant architectural form is of the pillared dwelling type. The dwellings generally form much of the perimeter of these settlements with their rear room(s) (the broad rooms) integrated into the settlement’s primary fortification elements, often in the form of a casemate wall (see Shiloh, 1987). In addition, dwellings are tightly clustered into the remaining interiors of the settlement along with other architectural features that consist mostly of variations on the pillared dwelling type (Aharoni, 1978). As stated by Wright:

"it is adapted to cramped and irregular urban development by addition and excision but in many, many instances it is found entire and true to type. It is equally congruous as a single unit, isolated building or as one of a row adjoining "terrace" houses. In this latter aspect it is an important concomitant of town planning development, it goes with a regular street frontage - and it can well be backed against the city wall" (G.R.H. Wright, 1985: 87).

The settlements are sometimes carefully planned (e.g., Beer Sheva) but more often are rather complicated mazes of dead ending alleyways and interior space (e.g., Tell en-Nasbeh and Tell Beit Mirsim: respectively McCowan, 1947 and Albright, 1943). However in both groups, the peripheral ring of dwellings and the interior houses are often clustered into smaller groups, districts, or quarters possibly representing extended families (see Shiloh, 1980; Stager, 1985a: 18). The dwelling’s protracted use from the spatially liberal Iron I settlements to the crowded, fortified, and spatially restricted villages, town, and cities of the Iron II suggests that it continued to meet the inhabitant’s
needs in spite of changing settlement patterns and socio-political transformations throughout this period. Identifying these needs is learned from analysis of the dwelling’s construction, and components.

Construction

The dwellings were constructed primarily of sun-dried mud brick laid upon stone foundations. The foundation was built of at least one course of small boulder and cobble fieldstones but as many as six courses or more are known. Exterior walls most always are two stones wide (ca. .50 - 1.0 m) and this is usually the case for interior walls, but walls one stone wide (ca. 25 - 75 cm.) also are known. Upon this stone foundation mud bricks were laid to the desired height and covered with a mud-chaff plaster on both interior and exterior surfaces (Holladay, 1992: 309).

While the broad rooms placed across the rear of the compounds were completely enclosed by solid walls, the long rooms/chambers often were separated by a row(s) of evenly spaced pillars (one row in the “3-room” houses: two rows in the “4-room” houses) (see Figs. 3 and 4 in chapter III). These were placed on or into the floor or built into stylobates beneath the floor. The use of pillars allowed for shared air space and visibility between the two rooms/chambers being separated (Holladay, 1992: 309) and facilitated communication between rooms while simultaneously allowing the space to be spanned by a cover of some form. Construction techniques and materials used for the pillars varied regionally, often depending on the availability of building materials. Pillars often were made of single pieces of square or rectangular-shaped limestone standing over a meter
high (width = ca. .25 x .50 m). Both roughly-shaped and finely-dressed examples are known. More often, however, roughly-squared or rounded limestone or chert “drums” measuring ca. .50 m in diameter and ca. .45 m in height were stacked to the desired height – which ranged from 1.0 - 2.0 meters. Less often drums of mud brick were used. The latter appeared on the coastal plain and in the Jordan Valley where stone building materials were not as common as in other areas. Limestone bases which supported wooden pillars also are attested archaeologically.

Other wall types that survive archaeologically include small, non-structural walls which sometimes were built between pillars or between an exterior wall and a pillar further compartmentalizing the space. These walls, sometimes referred to as curtain walls, usually are one stone wide and vary in height from less than a meter to ceiling height.

The known ceiling heights for dwellings are generally low and the roofs which covered them are not well known archaeologically, but some information is available. At 'Ai pillars supported ceiling beams 1.6 m. above the floor (Callaway, 1976; 1983: 45). A row of capped pillars was preserved at Tell en-Nasbeh standing to a height of 1.10 m above the floor (McCown, 1947: 213). 'Atar Haro’a yielded similar examples with an average height ca. 1.8 - 2.0 m above the floors (Cohen, 1970: 11) and Tell Masos yielded examples 2.0 m above the floors (Fritz and Kempinski, 1983: 25). The roofs covering the ceilings were built on stone or timber lintels and beams. These timbers were covered in turn by smaller beams (slats, poles, reeds, rushes, etc.) which were heavily plastered with a straw and mud material and, at least at Shechem, surfaced with several layers of floor
plaster (Wright, 1965; 161, figs. 76-80, 1978: 153). Roof rollers were used to maintain roof compaction and spread newer layers of mud and plaster. Albright gives dimensions of four rollers excavated at Tell Beit Mirsim (Albright, 1943: 51-52). Roofing material also has been identified at Tell es-Sa’idiyeh and Tell en-Nasbeh (Pritchard, 1985: fig. 95; Zorn, 1993: 131). The Shechem evidence suggests that a second floor covered at least part of the compound as does the Tell en-Nasbeh material where restorable ceramics were found above roofing material (Zorn, 1993). Additional support exists in the presence of staircases and in the high load-bearing capacity of walls and pillars which could easily carry additional stories in most known examples. But this is addressed below, along with an attempt to determine which of the rooms in the compound actually were roofed. First a description of the ground floor rooms is detailed.

The Broad Room

The broad room(s) is set across the rear of the compound. It frequently is divided (usually unevenly) into at least two rooms and can range in length from under 1 m. to 6-8 m. Its width generally is quite narrow as demonstrated by Braemer (1982). His analysis of 44 houses from the southern Levant yields a median width of ca. 1.90 m (Braemer, 1982: part two). However, many examples measure only a little more than a meter (e.g. the 1.2 m width for four houses of the “Western Quarter” at Tel Beer Sheva; see Aharoni, 1973: Pl. 94). During the Iron II period, the broad room is often incorporated into the settlement’s defense system as part of a casemate wall. In houses built near the exterior boundaries of settlements, the thickened back wall of the house served double duty as the
outer wall of the fortification system while its inner and connecting walls solidified and strengthened the fortification (see Shiloh, 1987). Additionally, the roof of the broad room provided an excellent platform from which to defend the city during times of attack or siege.

The function of the broad room is debated. While the smaller of these rooms probably served as a storage facility or in some related domestic activity, traditional wisdom holds that the larger of these broad rooms served as the main living quarters where activities such as sleeping, eating, and entertaining guests took place (e.g. Shiloh, 1970: 186; 1973; Wright, 1978; Herzog, 1984: 76). This assumption is based on the preserved remains of ancient dwellings as this space impresses one as the most suitable for those activities associated with a living room. Also, the floor preparation generally supports this assumption as floors are often well prepared and include hard packed earth, dried mud, plaster, or small cobbles. However, scholars recently have questioned this supposition: the general narrowness of broad rooms, their close proximity to stables and industrial/economic areas, and the belief that most of the living quarters were located on a second floor have raised doubts (cf. Stager, 1985a; Holladay, 1992). A large bin (grain storage?) found partially preserved in a large broad room at Shechem (Wright, 1965: fig. 76) suggests storage also took place in the larger broad rooms and a reevaluation of these areas may be necessary. Understanding the activities performed in other rooms in the lower floor helps to determine the use of the broad rooms.
The Long Rooms

Moving from the broad room, the remainder of the space in the compound was occupied by one or two side rooms and a wider, central room (courtyard?) (see Figs. 3 and 4 in Chapter III). In the “three-room” house plan, the wider of the two rooms appears to function similarly to the central room in the “four-room house.” The side rooms (or the narrower long room in the “three-room” type) often were divided by secondary walls and were covered – most likely by a low roof as described above, carrying a second floor. The space between the side wall and the pillars would have been easily spanned with the available resources and served to shelter the activities taking place below. The floor preparation and some of the fixtures discovered in these side rooms may shed light the identification of these activities.

While it is more common for side rooms to be paved, at least partially, with flagstones, some of the floor area usually also consists of packed earth. Such floors serve usefully for domestic stables. Flagstone floors could have provided a solid floor for heavy beasts from which manure and bedding could be removed easily while allowing urine to percolate down between the stones (Wright, 1965: 158; Stager, 1985a: 14). A stone-filled dry sump discovered beneath the flagstone floor in house 1727 at Shechem further supports this conclusion (Wright, 1978: 153). A number of these rooms are divided into what appear to be stalls and it is not uncommon to find mangers/troughs built into the stylobates of pillared walls (e.g. Tell es-Sa‘idiyeh: Houses 6 and 11 [Pritchard, 1970: 272, 1985: Figs. 75, 76, 77]; Lachish, house 6 [Tufnell, 1953: pl. 24: 5-6]; Hazor: Building 1, room 19 [Yadin et al., 1958: pl 174]; and possibly Beer Sheva: Building 76,
The rooms meet most of the requirements of a domestic stable including the stalling and folding of a small number of animals. One additional line of support for their use as stables includes similar examples of pillared domestic stables well attested in later periods in Palestine, particularly the courtyard houses of the Roman and Byzantine Houses (1st - 6th centuries C.E.) (see Hirschfeld, 1995: passim).

Other scholars interpret the side rooms as work and storage areas, dismissing the stable interpretation altogether (see e.g. Fritz and Kempinski, 1983: 27; Herzog, 1984: 77). Supporting this interpretation are the large quantities of store jars often found in these rooms as well as loom weights, ovens, and various other installations. Certainly a multiple use interpretation is required as a review of the evidence precludes neither interpretation.

The Central Room

More debate and conjecture have focused on discussion of the central room of the pillared dwelling than any of its other rooms or features. This room, flanked on one or both sides by additional long rooms, normally consists of a packed earthen floor, and is frequently the room through which the compound is entered. Its width ranges normally

12 Pritchard interpreted the installations at Tell es-Sa‘idiyeh as shelves (1985: 32) and in Building 76 at Beer Sheva crude clay was found between two pillars near the remnant of a stone and mud installation suggesting to the excavators the presence of a pottery kiln. In light of the above discussion it also is possible these may be the remains of a manger or trough. For more discussion on stables see Holladay (1986, 1994).
from 2 to 4 m and its length extends from the front wall of the compound to the front wall (interior wall) of the broad room (usually 4 – 10 meters). While Braemer (1982) believes the central long room to have functioned as the main living area of the dwelling, it has more often been interpreted as an open courtyard\(^\text{13}\) (Shiloh, 1970; 1973; Fritz and Kempinski, 1983: 27; Herzog, 1984: 77; G.E. Wright, 1965: 161; 1978: 153; G.R.H. Wright, 1985: 74). Items regularly appearing in the central room include installations such as hearths (large and small - see House 1727 at Shechem; Wright, 1965); ovens (tabuns) typically placed for easy access; numbers of grinding installations (saddle querns, mortars, pestles); small installations sunken into floors and surrounded by small cobbles (probably serving to hold large jars with rounded or small bases upright as seen in examples from Akroteri); and mud and cobble bins of various sizes, depths, and shapes. From this inventory, it is obvious that a number of activities were carried out in this area, including those associated with food preparation, storage, and work activities – especially those involved with household or family production (e.g. weaving, spinning, wine making, and plow shares). Many believe this room was unroofed and open to permit in the necessary light for such activities to be carried out, as well as allowing the access of light to other rooms of the compound, especially through the pillared walls of the side rooms. An outlet enabling smoke to escape from the cooking and hearth installations also was provided. In spite of this, recent trends are gravitating toward a reconstruction of the entire compound, including the central room, as being roofed. L.

\(^{13}\) If side rooms indeed functioned as a domestic stable, the close proximity of the central room to these areas would certainly have made life unpleasant in the olfactory sense.

Stager outlines five reasons why he believes the central room was covered: 1) during the cold and rainy winter, the earthen courtyard would have been unusable (cf. Pritchard, 1985: 30); 2) more than half the house would have been open air, leaving insufficient roofed space per individual for even a small nuclear family (see Naroll, 1962; Leblanc, 1971); 3) the width of the pillars and stone piers of Iron I-II houses is sufficient to carry an upper story (cf. Netzer, 1992: 198); 4) stone stairs preserved at Tell Beit Mirsim (Albright, 1943: 51), Tell en-Nasbeh (McCown, 1947; Zorn, 1993), Beer Sheva (Beit-'Arieh, 1973: 31), and Hazor (Yadin, 1972: 184); and 5) structural reasons best account for the regular spacing between rows of pillars and between pillars and walls. There is no reason why the intervening spaces cannot be spanned by either stone or timber joists to permit complete roofing of most house compounds (Stager, 1985: 15).

Some evidence which supports Stager’s reconstruction includes the partial remains of a timbered ceiling discovered in the courtyard of “House 1727” at Shechem (Wright, 1965: 161) and a drainpipe that apparently funneled water from the roof (possibly parapeted) of a house at Ta’anach (the “Drainpipe Structure”), down the interior face of a wall, through the courtyard, and into a cistern beneath the floor of the long room (Lapp, 1967: 21-22).

Netzer focuses on the architectural plan of the Iron Age house. He believes it would have been difficult to organize the lay-out of the second storey without a floor covering the central space below (Netzer, 1992: 197). He would opt for a second story with an open courtyard above the central space of the first floor. The upper courtyard
would be connected to the lower central space by a staircase, allowing light into the rooms of the lower floor. Light also could filter into these areas through small, high windows and the entryway. These openings also would allow air circulation through the entire structure.

Holladay's views follow Stager's. He believes the pillared dwelling was entirely roofed since this is the only way to meet the space requirements demanded by a nuclear family. It also facilitates a separation of the "Living Domain" from the "Economic Domain" (Holladay, 1992: 312). Using ethnographic work, primarily from Aliabad and Hasanabad (Kramer, 1979, 1982a, 1982b and Watson, 1979 respectively), Holladay (1992: 315-316) posits that the only way the pillared dwelling yields enough roofed living space for a 4-5 member nuclear family (needing at least 9 m square per person or 21 m of total roofed space) is to basically double the square footage of the lower floor since much of it is taken up in economic activities. Holladay demonstrates that much of the space on the lower floor is consumed in the economic necessities of stabling (including folding) and storage (food, animal feed; chaff/straw or fodder, mudbrick and plastering tools, dung and other fuels, and seasonal furniture) leaving little or no room for the living area where eating, sleeping, indoor work, and entertaining took place (Holladay, 1992: 312-314). Holladay seems to imply that cooking may have also takes place in the upper story (1992: 309).

Stager, Netzer, and Holladay make strong cases for the entire compound being roofed, and while this is undoubtedly the case for a number of houses, it may not be the case for all. Other alternatives exist for the covering of the compounds. A central
courtyard on the lower floor could have been open all the way to the roof of the second story. A clerestory type roof that allows light to filter into various rooms of the compound and smoke to dissipate outwardly also is possible (cf. Pritchard, 1985: 30). While no consensus is reached on how much area is roofed, it seems certain that activities required a sturdy roof, or an enclosed second floor, or a combination of the two. This is supported by the staircases found at numerous sites, the sturdy nature of the pillars and walls, and the solid construction of the roof/ceiling of the first floor.

The pillared dwelling as known archaeologically is small in size, regardless of how the second floor is reconstructed. This would militate against its occupation by any co-resident group larger than a nuclear family (this is deduced by Shiloh, 1980) or a small extended family. In spite of its compact layout, it met the economic, domestic, and living needs of its inhabitants. The inhabitants practiced mixed agriculture and some animal husbandry evidenced by the storage facilities and stabling areas of the first floor and the location of settlements near arable land (either valley bottoms or heavily terraced hillsides and slopes). Such diversification of subsistence strategies spreads risks in the case of crop failure, thus better ensuring the well-being of the family. It is probably a factor of the pillared dwelling’s ability to meet the needs of this subsistence strategy that shaped its form more than any other factor. It so successfully met the needs of its inhabitants that it became the standard dwelling type throughout much of the southern Levant for 600 years, surviving the settlement change from the small, spatially liberal villages of the Iron I to the larger but more cramped fortified villages, towns, and cities of the Iron II.

It is clear from the above discussions of destruction strata in tells and the Iron II
pillared dwelling excavated from these strata why remains from southern Levantine sites in general and Tell Halif specifically are useful in the present study. Tells preserve an enormous wealth of data useful for reconstructing the archaeological household of the Iron II. Not only are the dwelling’s building/construction materials preserved but also many of the material remains used by their residents performing daily activities. Especially common are restorable ceramic vessels preserved on floors or mixed among the destruction debris. But also present are a host of other artifacts and refuse. If it can be demonstrated that these vessels and other remains found in destruction debris are in or near the areas where they were commonly used then these deposits should be useful for studying activity areas associated with the archaeological household. The best way to determine this is to approach remains in the debris of Iron II pillared dwellings preserved in destruction strata through a spatial analysis which focuses on the identification of patterns in the remains as described in the previous chapter. Through this method the identification of activity areas in domestic space at Tel Halif can be accomplished. The remainder of this chapter focuses on “how” the remains from destruction strata in tells are used to better understand the archaeological household. First the different classes of artifacts and refuse preserved in the pillared dwelling, both movable and non-portable, are reviewed. Out of this discussion arise a number of questions that conclude this chapter. These are addressed in later chapters.

Sources of Data for Determining the Use of Domestic Space

It has been stated already that ceramic data are the focus of the present study.
However, ceramics are not the only source considered when attempting to determine the activities taking place in the pillared dwelling. This is important since a number of daily activities performed by members of the archaeological household in the pillared dwelling are not represented by the ceramic repertoire used by an archaeological household. For this reasons additional data sources are used to test and supplement the conclusions reached using the ceramics preserved in the *de facto* refuse of Stratum VIB at Tel Halif. This approach is foreshadowed somewhat by Henrickson and McDonald when they state that information “on the possible usages of intact and restored vessels, especially when combined with functional and distributional data on other classes of artifacts, features, architecture, and floral and faunal remains can lead archaeologists to new insights into ancient subsistence systems and intrasettlement activity” (1983: 640). Some of the same sources of data mentioned by them are used to supplement the ceramic based interpretations of space presented here. Primary among these are micro-artifacts, non-portable artifacts such as architectural features and installations, and portable artifacts and refuse including lithics, shells, metals, some floral data, and fauna.¹⁴

**The Comparative Data**

One of the most promising comparative lines of data for interpreting space comes...  

¹⁴ The report containing analysis of the Field IV faunal material has not been submitted at this time and thus was not available for use in the dissertation. However, where bone tools are known to exist and their identification and provenience can be established via field notes, they are used here to supplement the other sources of data. Also, through personal communication, the presence of some animal species has been confirmed.
from the microartifacts collected by A. M. Rosen from the living floors of the Iron II dwellings in Tel Halif’s Field IV. Microartifacts as primary refuse are defined here as archaeological remains .25 – 30 mm in size, that accumulate on floors and are often small enough to avoid being moved from their point of production or use. Samples collected from living floors include two cm of accumulated surface debris taken from an area 25 cm in diameter. Multiple samples are taken from each floor and sieved through graduated screens for size separation then analyzed microscopically. Types of artifacts recovered include fish bone, large animal bone, cereals, legumes, egg shell, grape pits, beach rock mortar fragments, greenish slag, red ochre, and burned debris of various natures. Where formation processes can be ruled out as significant sources of patterning, through either the addition of new materials and patterns or the depletion of primary refuse and patterns, these samples can be very telling about the use of space (see Rosen, 1989; 1991). Rosen has interpreted the space in the houses quite specifically and it is interesting to compare her interpretations of the use of space based on the microartifact data with those based on the ceramic vessels to determine their correlativeness. Also of importance, the microartifacts are removed from the build-up of materials on floors that occurs over time. As such, they should yield a more diachronic view of the activities taking place in domestic areas than the artifacts preserved as de facto refuse on and above the living floors. They thus aid in ferreting out activities associated with settlement destruction which may not be typical daily activities. Additionally they can be useful in determining what type of depletions of the de facto refuse may have taken place. Rosen’s study of the microartifacts from Field IV is of great importance for the conclusions
reached in the dissertation regarding the use of space.

Other artifacts useful for reconstructing activities and the use of space include especially the more stationary, non-portable artifacts. These include from Tel Halif stone-lined bins, circular stone platforms, small stone-lined pits, mortars sunken into floors, massive saddle querns, "benches," ovens, and hearths. Since these artifacts or features are not moved about normally in the performance of activities, it usually is safe to infer when dealing with destruction levels that these features rest in the places they were used in the behavioral context. However, these artifacts too must be analyzed for the effects of formation processes in various contexts.

In addition to the non-portable artifacts a host of movable ones also are available for the study of domestic space and household activities. Lithic artifacts include grinding implements, small fragments of minerals, blades, debitage, scale weights, items of personal adornment, spindle whorls and other perforated stones, and "standing stones." Metals include weapons (arrow points), slag, items of personal adornment, and tools like axes, needles, and iron plows (presumably storage is the action associated with the plows and not use). A number of bone tools also have been excavated including button-shaped tools, awls/needles, and weaving shuttles. Additional artifacts include shells (some perforated), floral remains, and clay artifacts in addition to ceramic vessels and stands of various types. These include stoppers, spindle whorls, figurines, bullae, and loom weights.

All the sources of data outlined above are considered when attempting to determine the activities taking place in the pillared dwelling at Tel Halif. If it can be
established that many of these artifacts were in the context where they were used and/or stored immediately before the destruction of the tell. Then taken together, such a group has great potential for leading to a better understanding of the activities performed in specific areas of the dwelling. This is especially the case when these data are combined with ceramic data which are among the most useful for archaeologists.

**The Ceramic Data**

Ceramics are one of the most abundant artifact classes preserved in the archaeological record. They also are one of the commonest and most enlightening data sources used by archaeologists for drawing conclusions about the past. This is due, in addition to their abundance in the archaeological record, to their common use by past peoples virtually everywhere, their durability over time, and their highly variable nature through time and space. Many culturally determined choices are made when ceramics are produced (form, style), how they are distributed, and how they function in a behavioral system. These characteristics make them especially useful for understanding various aspects of organization in society. For these reasons ceramics are ideal as the primary source of data used in the present study for identifying and explaining activities and variability at the level of the archaeological household. It is for these reasons that they

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15 For general discussion of the use of ceramics in archaeology see Kingery, 1960; Rice, 1987; Sinopoli, 1991.
are employed here.¹⁶

Using Ceramics

Ceramics first appeared as a common class of tools during the early Holocene (ca. 10,000 year ago) when many human populations made the transition to more sedentary lifestyles (see Rice, 1999). Their use subsequently spread rapidly as they were adopted throughout many areas of the world for a number of uses in everyday activities. Ceramics, as well as clay, are suitable for a number of activities including food preparation, serving, consumption, storage, weaving, light transport of goods, cultic and/or ritual rites and other activities. Ceramics, especially utilitarian forms, also are cheap to produce and the level of technology required to produce basic functional items is not terribly sophisticated. Once it was learned that moist, soft, plastic clay could be molded into useful shapes, and that drying and heating soft and plastic clay made it hard and non-plastic, ceramics as a utilitarian resource flourished. These characteristics insured the common use of ceramics for millennia. Their durability in the archaeological record over long periods of time insured their common use by archaeologists.

Although ceramics were extremely common in the past, vessels existing as whole forms in the archaeological record are rare. It is their fragments, or sherds, produced upon their breakage that are highly stable and durable for long periods of time. Just how

¹⁶ - It should be pointed out additionally that the ceramic material from the Phase III excavations of Field IV were generously offered me by the core staff of the Lahav Research Project.
stable and durable, and how long they last in the archaeological record and in what state, vary based on a number of properties. These include the vessel's production, use, and the circumstances under which it leaves the behavioral context and enters site and/or archaeological contexts. Production factors that affect the ceramic's stability through time include composition of the paste, firing (temperatures reached and maintained and the length of total firing), thickness and shape of the vessel, and inclusions used to temper vessel paste (more complete discussion in Schiffer, 1987: 158 - 62). The vessel's intended use also can affect its durability in both behavioral and site contexts.

Ethnographic research demonstrates that larger, less movable vessels last longer than do smaller sized vessels in the behavioral context (Longacre, 1981; Longacre et al., 1991: 7; relatedly see David, 1972; David and Hennig, 1972; DeBoer, 1974; DeBoer and Lathrap, 1979; Foster, 1960,1967; Longacre, 1985). However, large vessels, and smaller ones for that matter, used in the storage of acidic liquids like wine, or used in the production processes associated with it, for example fermentation, can commonly exhibit heavily pitted and worn interior surfaces. However, it still remains true that smaller vessels are more likely to break as they are more often moved about and manipulated in different activities than larger vessels. Cooking pots are a good example.

Cooking pots are one of the least durable classes of ceramic vessels functioning in behavioral context (Longacre, 1981). This is due largely to their frequent use, movement, and repeated exposure to thermal shock associated with heating and cooling as they are constantly placed on and removed from heating sources (Grimshaw, 1971; Kingery, 1955). To make them less susceptible to thermal shock, vessel thickness and shape are
manipulated (Brody, 1979; Sinopoli, 1991: 14; VanVlack, 1963). Additionally, clays with larger pore size and greater porosity are chosen and/or tempers often are added that make the vessel paste more resistant to strain caused by expanding and contracting particles during vessel heating and cooling (Arnold, 1985: 24; Rice, 1987: 367-368; Rye, 1976: 118; Sinopoli, 1991: 14). However, while these measures increase the life of cooking pots in the behavioral context, they also may decrease the ceramic’s durability once it enters site context. Of all vessels excavated, reconstructed, and analyzed from Tel Halif’s Field IV Stratum VIB, the fabric of cooking pots was the poorest preserved, commonly found in a very friable state.

Other factors affect ceramic durability in the archaeological record as well, sometimes dramatically. Many of these factors are not inherent to the ceramic itself but result from its interaction with the environment in which it enters and pervades the archaeological record (site context). These may include the relative dryness and wetness of surrounding soils, soil pH, and/or the ceramic’s exposure to freeze and thaw cycles or leaching materials such as limestone (Murphy, 1981; Reid, 1984: 56; Rye, 1981: 120; Schiffer, 1987: 159; van der Leeuw, 1984; van der Leeuw and Pritchard, 1984; West, 1970: 107 - 109). There are many additional factors that affect the degree of preservation of ceramics in the archaeological record. However the fact remains that ceramics continue to be one of the most stable and durable artifacts preserved in the archaeological record and one of the most useful for archaeologists.

While commonness and durability contribute significantly as reasons archaeologists widely employ ceramics to study the past, it is doubtful this would be the
case if not for their highly variable nature. Variability in ceramics most often and most significantly manifests itself in the style and the form of vessels (Skibo et al., 1989; Rice, 1987: 244-272). Style and form are determined by available raw materials (clays, tempers, resources for firing), level of technology, manufacture and decorative technique (directly related to the first two), organization of the production process, intended function of the product, normative ideas, and cultural fashions (Henirckson and McDonald, 1983; Rice, 1987: 236-272; Schiffer and Skibo, 1997; Skibo et al., 1989).

The variability in these factors is observable easily through time and space thus rendering ceramics excellent data sources for studying various components of society at specific times and in specific places.

Ceramics vary through space at many different levels. They may share similar traits in style and form over large geographical areas. An example includes the shell tempered pottery ranging throughout the entire Mississippi River Valley during the 14th and 15th centuries C.E. (Morse and Morse, 1983: 208-304). Or in this same broad context of shell tempered pottery fabrics, ceramics may vary dramatically based on stylistic criteria such as decorative techniques and vessel shape. Other factors may cause vessels to vary across the floor of a single room. These would include vessel classes or forms based on functional attributes.

Early attempts to make ceramic styles and forms meaningful used observable differences and similarities in ceramics to create classificatory schemes (e.g. style, form, absence/presence of vessels in various places). Such schemes were used as the basis for defining cultures (Willey and Sabloff, 1973: 42-77; Trigger, 1989: 73-108). Later
attempts to derive meaning from ceramics attempted to make connections between style and social organization (Deetz, 1965; Hill, 1970; Longacre, 1970; Whallon, 1968\textsuperscript{17}). At the same time more concern with context, function, and finally explanation pervaded archaeological analyses, especially archaeology associated with processual approaches. As more attention was given context more efforts were made to determine how ceramics functioned in behavioral contexts. While intuitive explanations of vessel use always have been a part of archaeological research, only in the last several decades have explicit models been developed to address vessel function. Most of these rely on ethnographic observations and experimental studies. These have greatly increased the power of our inferential strategies for interpreting the use of ceramics and also the identification of activity areas where they functioned. It is their usefulness in this area that warrants their employ here.

Ceramics are used here to identify activity areas in dwellings, in this case specifically, the domestic space occupied by the archaeological household of Iron II Tel Halif. Because ceramics are employed in many different activities they can be used to understand a number of activities taking place in pillared dwellings. Before this can be done, it is important to know in what capacity ceramic vessels were being used.

**Determining Vessel Function**

A number of methods are available and quite useful for determining vessel use.

\textsuperscript{17} For recent critique of their methods see works cited in Skibo et al., 1989
Some of the methods employed in the dissertation include vessel shape or form, use/ware analysis, direct examination of vessel surfaces and other characteristic features for evidences of uses, chemical residue analysis, and analysis of raw materials and methods used during manufacture.

Study of the shape of a vessel yields many clues about its intended use. Sinopoli points out that numerous factors "such as the size of the opening, ease of access to a vessel's contents, volume (and weight when full), location of the center of gravity, and vessel stability all seem to be partially determined by the intended function of the vessel" (Sinopoli, 1991: 84). Much ethnographic and ethnoarchaeological research investigates the manufacturing and distribution of ceramic vessels (e.g. Annis, 1985; Birmingham, 1975; Howard and Morris, 1981; Nicholson and Patterson, 1985; Stark, 1985; van der Leeuw and Pritchard, 1984). But a number of ethnographic studies of ceramic vessels are functionally oriented (e.g. Ericson et al., 1972; Henrickson and McDonald, 1983; Linton, 1944; Matson, 1974; Smith 1983; 1985; Solheim, 1965; Thompson, 1958). Although ceramic style and form vary considerably through time and space, cross-cultural ethnographic observations show some pronounced regularities in ceramic vessels both through time and space (e.g. Henrickson and McDonald, 1983; Smith 1985). A number of studies have demonstrated that specific features are commonly associated with certain classes of functional vessels (e.g. Birmingham, 1967; Ericson et al., 1972; Fontana et al., 1962; Henrickson and McDonald, 1983). Henrickson and McDonald's work especially is demonstrative of observable and patterned regularities in vessel attributes according to function.
Henrickson and McDonald (1983) described a number of fundamental characteristics in different classes of functional vessels that occur regularly among the ceramics of a great number of peoples observed ethnographically. Their research involving cross-cultural studies found many regularities in cooking pots, serving and eating vessels, dry-storage vessels, liquid storage vessels, and water transport vessels. Cooking pots most often are short and squat, relatively thick-walled, with a large basal surface for efficient heat transfer, and a somewhat restricted mouth to prevent rapid evaporation from boiling foods. Serving and eating vessel types include a number of different bowls and platters which vary by size based on their use by an individual or by families and which vary also in form, based on the function of the bowl (drinking, bowl for dipping into sauces, etc.). Variation in wall slope, bowl thickness and deepness, and rim design are common. Dry-storage vessels tend to be unusually tall and proportionately, rather thin-walled, with rolled over or everted rims to facilitate the tying of a pliable cover over the opening for protection of the contents. They often include appendages such as handles for tilting mostly empty vessels or tying off lid covers. Liquid storage vessels show greater morphological variation than many other functional categories of vessels but are typically so large that they are immobile when full. They are usually taller and thinner than dry storage vessels and their necks generally are more restricted but not as much as one would predict (contra Ericson et al., 1972). Rims are typically rounded or everted, presumably to aid in pouring and perhaps plugging of the vessel mouth. Other predictable features include rounded bottoms to aid in pouring and also spouts, handles, and lugs. These last features are not as common as one might
expect. Water transport vessels and canteens often are globular or bi-globular-shaped and small orifices are universal. (Henrickson and McDonald, 1983: 631 – 634).

Information of this type is vital for understanding the general functional categories of vessels. However, not all vessels are suited ideally for intended use thus shape may vary in unpredictable ways. Vessel shape may be determined by normative ideas, fashions, and the technology of ceramic production (Sinopoli, 1991: 84) and vessels may come to be used in ways other than their originally intended design. Thus other methods for determining vessel function are necessary to supplement general ethnographic observations. Archaeometric techniques and the analysis of vessel wear patterns are useful toward this end.

Archaeometric techniques are constantly and continuously improving and increasingly helpful in determining vessel function. Use of chemical analyses such as liquid and gas chromatography to extract and identify residues absorbed into the fabric of ceramic vessels during use can help to establish the identity of materials stored or placed in them, leading to a better understanding of ways ceramic vessels were used (Skibo, 1994; Hally, 1986; McGovern, 1990). Limited use of this type of analysis was performed on some of the Tel Halif ceramics with some success. Select vessels were tested for identifiable residues using Fourier-transform, diffuse-reflectance infrared spectrometry, high-performance liquid chromatography, and wet chemical techniques. These processes successfully extracted and identified fatty acids trapped beneath the interior surface of ceramic vessels leading to the successful identification of these residues and thus the substances once held in the vessel. The direct examination of vessels and their
constituent parts for the raw materials used, and evidences of wear traces and abrasions – also referred to as attritional wear (Schiffer, 1987: 48) – lead to a better understanding of vessel function.

The identification of the vessel’s raw materials is revealing about vessel function (Mills, 1984). Some specific types of tempers may be added to enhance a ceramic’s performance characteristics in certain types of activities. For example large bits of limestone and/or shell added to cooking pots make them less susceptible to the ravages of thermal shock (Mills, 1984). Clays with very small particle size may be employed in vessels for liquid storage to curtail the loss of the liquid through seepage or evaporation. Similarly, burnishing or slipping the inside and/or outside surfaces of vessels may enhance ceramic performance in comparable ways, in addition to increasing the vessel aesthetic (see Schiffer, 1990). Evidence of wear and abrasions on vessel surfaces also can be telling about vessel function (Schiffer and Skibo, 1989).

The heavily abraded interior surfaces of bowls may suggest grinding whereas lighter abrasions may suggest normal wear through use in food consumption (e.g. dipping or rubbing one food against another or the vessel side or rim). Heavily pitted and worn interior surfaces on jars may suggest their use for the storage of acidic liquids such as wine or beer. It also may implicate their use during the fermentation process of these liquids where occurrences of relatively violent chemical changes accompanying this process possibly erode the interior surfaces of vessels. Exterior and interior wear on/in the bases of other classes of vessels may lead to a better understanding of vessel function.

Exterior wear near the base of vessels may result form placement on a heat surface
or a stand of some type. Interior wear near the bottom of a jar with a large opening may result from a scoop rubbing the bottom of a vessel as the last of its contents are removed. Relatedly, edge ware on the rim of a bowl may suggest its use as a scoop in this same activity. Edge wear on the rim of other classes of pottery vessels also is revealing about their use. The author has noted heavy abrasions on the rims of a type “stand” that is often associated with cultic activities in the Iron II southern Levant. This suggests the use of an additional vessel(s) occurring with stands. Another type of wear, while not an abrasion, fits into this category as well since it leaves observable traces on the surface of ceramics. Charred marks observed at particular locations on vessels may signify their use as cooking pots, lamps or other light sources, or use in the burning of aromatic matter.

Through these observations and procedures, reasonable inferences can be made regarding the function of ceramic vessels. But it is just as important that the vessel’s context be well understood if it is to be useful for retrieval of the kind of information necessary for reconstructing first the archaeological household and then the household of Iron II Tel Halif. Thus, it is important that these ceramics were excavated and processed in a manner that yields the kind of spatial data important for use in these endeavors. Their excavation as outlined in Chapter I focused on preserving the spatial location of their find spots with attention to their three-dimensional relationships to earth layers, floors, and other movable and non-portable artifacts. It was similarly necessary to carry out the processing in such a way that the spatial data was so carefully attained in the field not be lost in the processing and analysis of the ceramics.
Recovery and Processing

The ceramics were excavated from the field in the manner described at the end of the last chapter. Upon mapping and removal from the field they were separated from the other artifacts and collected by pottery basket (actually a plastic bucket) in the field. The basket was removed from the excavation area at noon, filled with water, and allowed to sit for the remainder of the day. Around 5:00 p.m. the same day, the loose dirt was scrubbed off with brushes and the sherds were placed in baskets to dry until 5:00 p.m. the following day. At this time the pottery was "field read" by the ceramicist along with the field supervisors of the excavation areas from which the sherds were excavated. This reading is primarily to determine the date of the ceramics and consequently the date of the locus yielding the ceramics. This is a particularly important reading for the study of formation processes as it has been the case that later material introduced into Iron II deposits has been identified here before the cause of the contamination was identified or defined in the field. Ceramic objects such as spindle whorls, ostraca, and stoppers among others, that were not identified as objects in the field also were removed from the pottery basket at this time and were entered into the object registry. Following these steps the ceramics were bagged, re-tagged by pottery basket, and boxed for later shipment to the United States.

This is a point of departure from procedures usually followed by the Lahav Research Project. Normally, diagnostic sherds (rims, bases, decorated, or other special sherds) are immediately registered, described and drawn. In 1994 the Field IV ceramics were shipped to the Cobb Institute of Archaeology in Starkville, MS where analyses were
completed. Upon arrival, all sherds were removed from the shipping crates and individually registered. This included labeling the sherd with provenience data (each sherd is registered by an individual identification number and its pottery basket), weighing it individually, and entering it into the reconstruction system. Over 46,000 sherds weighing over 1000 kg have entered this system.\footnote{18} More detail regarding reconstruction efforts is discussed immediately below, but once all construction efforts were completed, the ceramics were divided into two categories. In each category the analysis of the ceramics proceeded differently.

The two categories of ceramics include: 1) the restored vessels belonging to the \textit{de facto} assemblage that was left behind on floors in the behavioral context immediately prior to the destruction of the Iron II settlement at Tel Halif and came to be included immediately in the archaeological record (site and then archaeological context) and 2) those ceramics which could not be associated with vessels of the restorable \textit{de facto} assemblage of artifacts, including primary refuse lying on floors after being discarded at its place of use/loss and secondary refuse introduced through other processes. These two categories of ceramics were analyzed differently. It is important to note that not all restorable vessels found in Field IV were part of the \textit{de facto} assemblage but more on this is addressed below in the discussion of formation processes (Chapter III). One reason so much attention was given complete reconstruction of vessels from the \textit{de facto} assemblage and other sherds is to avoid overlap between the two sets of data. However, additional sherds and restorable ceramic vessels excavated by the Lahav Research Project in 1999 now also have entered the reconstruction system.
it is almost certain that sherds in the second category are part of the *de facto* assemblage and it is likely that sherds included in the first category belong in the sherd assemblage. Due to the exhaustive reconstruction efforts it is believed that these numbers are not significant.

**Analysis**

The first category consists of the ceramic vessel assemblage which is part of the *de facto* refuse preserved in the Iron II destruction level at Tel Halif. This category of ceramics is the primary data set used for reconstructing activities that took place in the Iron II dwellings. Thus the questions addressed with these data deal with how the ceramic vessels came to be in the places they were discovered and whether or not the patterns observed in their distributions and frequencies reflect everyday activities carried out by the Iron II occupants of pillared dwellings. Some questions addressed include: why are some of the vessels only partially restorable? What other processes introduce patterns and variation into the distributions of the ceramic vessels? And, what behaviors can be reconstructed from the locations and identifications of the vessels? The analysis of the *de facto* assemblage is designed with the goal in mind of addressing these issues.

The processing of the *de facto* assemblage was geared to total vessel reconstruction. Using the provenience information recorded on each individual sherd, they all were spread out and placed next to their nearest neighbors. As sherds were associated with a vessel, the vessel was given an identification number and all sherds associated with it were recorded on the “Vessel Identification Form.” Once
reconstruction efforts ended, ceramic vessels were drawn and described (form, manufacture technique, paste color — interior and exterior, surface treatment — interior and exterior, inclusions/temper, firing, hardness, and observable surface wear). They were then weighed and the total number of sherds was counted. Next their find spots were plotted on a plan of the Field IV dwellings. Excavation records including field notes and especially photographs were used to establish find spots of vessels. More helpful was the "Vessel Identification Form," which recorded all sherds and therefore their provenience data. Thus, how far a vessel spread across a floor upon its breakage, the number of sherds that actually came into contact with floors, how much of the vessel was preserved, and, relatedly, the vessel's relationship to disturbances of the destruction levels all could be checked quite easily.

These vessels also were grouped, first into typological categories, and then into functional ones. A corpus catalogue was developed, largely based on conventions developed by Tufnell (1953) and Gitin (1990). This was developed to facilitate comparisons of the Field IV ceramic vessels with those from other excavation fields at Tell Halif as well as other sites in general. Attempts were made to include examples of all known vessels from Iron II sites in the southern Levant, both temporally and spatially near Tel Halif. This allowed comparisons of what was not present in Field IV as well as comparisons of what was. The corpus catalogue is included in the dissertation as Appendix A. Once vessels were identified typologically, they were grouped into functional categories based on the criteria discussed earlier and plotted as groups in the dwellings as described above. The vessels break down into the following categories.
Store Jars
1. Ovoid-shaped
2. Oval-shaped
3. Hippo-shaped
4. LMLK
5. Sausage (short neck or neckless)
6. Sausage (cyma shaped, short neck, knob rim)
7. Pithos (large ovoid-shape, very wide mouth)
8. Pithos (long, small, cylindrical, narrow mouth)
9. Pithos (short, small, cylindrical, wide mouth)
10. Three-handled/spout (sup-like spout in place of 4th handle)
11. Ovoid/oval-shaped
12. Sack-shaped
13. Bell-shaped
14. Large Pithoi
15. Bag-shaped
16. Ovoid (four handles)
17. Ovoid (two handles)
18. Miscellaneous
19. Miscellaneous

Jugs
20. Globular-shaped (wide neck)
21. Globular-shaped (narrow neck)
22. Squat (mug-jug)
23. Squat (medium neck)
24. Sack-shaped
25. Miscellaneous

Decanters
30. Globular-shaped
   A. Large
   B. Small
31. Sack-shaped

Amphora
35. Globular-shaped

Amphoriskoi
40. Oval-shaped
41. Miscellaneous
Flasks
45. Straight vertical neck; two handles

Juglets
50. Dipper (wide neck)
51. Dipper (narrow neck)
52. Dipper (narrow neck, no shoulder)
53. Piriform (wide neck)
54. Piriform (narrow neck)
55. Piriform (squat)
56. Cypro-Phoenician
57. Miscellaneous

Bowls
60. Round-sided (deep, no handles)
   A. Large
   B. Medium
   C. Small
61. Round-sided (with handles)
62. Round-sided (rim curved inwards)
63. Straight-sided (deep)
64. Straight-sided (medium depth)
65. Straight-sided (shallow)
66. Straight-sided (shallow/platter)
67. Slight Carination
68. Carination (large-medium bowls)
69. Carination (small bowls)
70. Sharp Carination
71. Bell-shaped
72. Miscellaneous

Kraters
80. Waisted
81. Amphora (vertical handles)
82. Amphora (horizontal handles)
83. Amphora (no handles)
84. Carinated (slight)
85. Carinated (sharp)
86. Oval/ovoid

Mortaria
90. Mortaria
Cooking Pots
95. Cooking Pot (carinated)
   A. Large
   B. Medium
   C. Small
96. Cooking pot (sharp carination at bottom)
   A. Large
   B. Small
97. Cooking pot (globular)

Cooking Jars
100. Cooking jar (globular)
    A. Large
    B. Medium
    C. Small
101. Cooking Jar (sharp carination at bottom)

Lamps
105. Lamp (shallow)
106. Lamp (rounded base)
107. Lamp (flat/footed base)
108. Lamp (pedestalled base)
109. Miscellaneous

Scoops
115. Scoops

Strainers
120. Strainers

Funnels
121. Funnels

Stands
125. Stands (functional or non-fenestrated)
126. Stands (cultic or fenestrated or decorated)

These classes of ceramic vessels are grouped into: 1) storage jars with restricted necks; 2) pithoi with large, unrestricted orifices; 3) jug, decanters, and amforiskoi; 4) large,
medium and small bowls; 5) cooking jugs and pots; 6) lamps; 7) funnels; 8) strainers; and 9) stands. The percentages of each vessel type were tabulated for each room and dwelling.

Ceramic vessels grouped into these categories are from the *de facto* assemblage and are the primary data set for determining the activities carried out in the dwellings of Iron II Tel Halif. However, the second assemblage of ceramics also is useful for this study.

The second category, the sherd assemblage, while not used here as primary in the identification of the activities taking place in domestic space at Tel Halif, is nonetheless very useful for understanding space, as well as processes active in the archaeological record of the Iron II destruction level at Tel Halif. Their analysis is slightly different from the restorable sherds of the *de facto* assemblage.

Once reconstruction efforts in the laboratory were completed, the sherds remaining unassociated with vessels were re-separated into pottery baskets for further analysis. Diagnostic sherds are once again removed, drawn, and described in the same manner as the restorable vessels and then re-associated with the pottery basket. Next the sherds – both diagnostic and body – are divided into seventeen ware/form classes and counted and weighed by category. Ware/form categories are based on traditional name/form designations common to Syria/Palestine which report gross form categories based on function, so they are essentially functional divisions (Amiran, 1969: Dessel, 1991: 335; Rice, 1987: 217, 288). The wares are then subdivided based on manufacture technique, shape, ware, and decoration (all visual techniques *a la* Franken, 1982, 1986).
Some of the ware categories overlap vessel types as some pastes are used in the manufacture of more than one vessel type (e.g. paste used in both pitchers and cooking jugs or both storage jars and large bowls). Alternately a number of ware categories are included in only one form (e.g. there are four to five different wares common in storage jars). Also some categories represent sherds that were undeterminable, or later or earlier in date than the Iron II. However, great emphasis has been placed on associating the sherds with functional types of vessels so that the sherd assemblage can be used as a companion assemblage to the first category of ceramics to address spatial/functional issues. The ware form categories are separated as follows:

**Ware/Form Classes**

1. **Storage Jar - Imlk type**
   - Color: red paste with dark grey to red exterior and grey interior
   - Inclusions: some-many medium limestone (sometimes many very small limestone); some medium wadi gravel; few medium ceramic; and very few large crystal.
   - Core: grey to no core.
   - Paste: little sandy, well levigated
   - Types: corpus catalogue Imlk no. 4
   - Special note: body below shoulder usually slipped on exterior; interior surface often badly eroded or empty limestone pores observable.

2. **Storage Jar - buff to red with limestone or wadi gravel**
   - Color: red to buff paste.
   - Inclusions: some-many medium-large limestone; few-some small-medium wadi gravel; some-many small sand; few large sandstone.
   - Core: grey to none
   - Paste: sandy but well levigated
   - Types: closed storage jars (two handled and four handled) and holemouth pithoi.
   - Special notes: very similar to Type I - differentiated by exterior surface treatment and interior surface color.
   - Corpus Catalogue: nos. 7, 8, 10, 12, 13, 14, 17, 125
3. Storage Jar- Brown well levigated with sand and black grit.
   Color: Brown to buff paste.
   Inclusions: some-many small-medium sand; few small-medium wadi gravel;
   sometimes few-some small-medium limestone.
   Core: dark grey to none
   Paste: well levigated clays
   Types: usually closed storage jars, amphora style kraters (necked), or holemouth
   pithoi.
   Corpus Catalogue: nos. 1, 2, 3, 4, 7, 10, 15, 20, 21, 126

4. Storage Jar- brown “clunky” ware.
   Color: Brown to brown/buff past.
   Inclusions: some-many, medium-large limestone, many small-large wadi gravel;
   few medium organic; large sandstone, few medium-large shell, few small-
   large crystal.
   Core: no core.
   Paste: very friable.
   Types: baggy holemouths.
   Corpus Catalogue: nos. 8, 9

5. Storage Jar/Jug - Green, slipped exterior, orange, sandy paste.
   Color: orange to red paste, green to pink slipped exterior, orange to red interior.
   Sometimes buff to green paste (e.g. in sausage jar).
   Inclusions: some-many very small sand; sometimes with few medium limestone.
   Core: light grey to none.
   Paste: sandy, well levigated.
   Types: most commonly two-handled, sausage-shaped jars and tall and short
   globular jugs with both wide and thin necks.
   Corpus Catalogue: nos. 3, 5, 6, 11, 21

6. Jugs/Pitchers/Decanters- dark brown to red paste; squat.
   Color: brown to pink/red paste sometimes exterior partially treated with red slip.
   Interior surface is color of paste.
   Inclusions: some-many very small sand; few-some small-medium limestone; few
   medium-large wadi gravel.
   Core: dark grey to none.
   Paste: sandy
   Types: squat jugs, some globular trefoiled examples, and some decanters and
   amforiskoi
   Special notes: ribbing apparent on interior surface.
   Corpus Catalogue: nos. 22, 24
7. Decanters - vertical or ring burnish
   Color: Buff to pink paste; exterior often red-slipped and/or vertically-burnished.
   Inclusions: some, medium limestone or many small sand inclusions. Many small limestone.
   Core: usually none
   Paste: well levigated; either sandy or filled with small limestone
   Types: decanters
   Corpus Catalogue: nos. 31, 34

   Color: buff paste. Sometimes green slipped exterior
   Inclusions: many small limestone; some small sand.
   Core: dark grey to light grey
   Paste: course to well-levigated
   Types: Squat jugs and possibly wide-mouth piriforms
   Corpus Catalogue: nos. 20, 21, 24, 40

   Color - pink to buff paste. Sometimes red-slipped exterior with vertical hand-burnishing.
   Inclusions: some small limestone; few medium-large limestone; few medium wadi gravel; few small sand.
   Core: light grey to none
   Paste: buff, few inclusions
   Types: Dipper juglets, narrow neck piriform
   Corpus Catalogue: nos. 50, 51, 52, 53, 54, 57

10. Juglets - black or red squat piriform
    Inclusions: some-many small limestone.
    Core: not observable due to color of vessel
    Paste: black or red depending on firing technique
    Corpus catalogue: no. 55

11. Cooking Pots/Jugs/Pitchers - sandy gritty paste
    Color: dark red to red-orange or dark brown.
    Inclusions: many very small sand; few-some medium-large sand (quartz); very few small limestone.
    Core: dark grey to none
    Paste: sandy
    Types: squat jugs, cooking jug, cooking pots, pitchers, and decanters.
12. Cooking pots- large inclusions
   Color: dark brown to buff paste.
   Inclusions: some-many medium-large limestone; some organic some very small sand; some medium crystal; few medium-large sand; few medium organic: few large shell.
   Core: black to light grey.
   Paste: somewhat friable, many fracture plains
   Types: cooking pots
   Corpus Catalogue: nos. 95, 96

13. Bowls - small to large
   Color: buff to brown to pink to red paste. Exterior surface sometimes partially slipped (red) and interior surface often red-slipped and wheel-burnished.
   Inclusions: some very small sand; few-some small limestone; few medium wadi gravel.
   Core: usually none.
   Types: bowls, lamps, and flasks.
   Special notes: rilling usually apparent on exterior surface.
   Corpus Catalogue: nos. 45, 60, 61, 62, 63, 64, 65, 66, 67, 70, 81, 82, 83, 105, 106, 107, 120

14. Bowls - kraters, handled
   Color: buff to red paste; pink/red-slipped interior surface usually (sometimes brown-red or buff-green).
   Inclusions: often many very small limestone.
   Core: thick grey to none.
   Types: some large, handled bowls and most bowl-type kraters.
   Special notes: exterior surface usually rilled and interior surface often red to pink-slip and wheel-burnished.
   Corpus Catalogue: nos. 78, 80, 84, 85, 86

15. Imports/Miscellaneous
   Cypriote black on red juglets
   Corpus Catalogue: no. 56

16. Imports/painted unidentified, earlier, later, etc.

17. Intrusional
   sherdS from higher or lower deposits, described by period to which they originated (if determinable).
While the ware/form categories were separated by pottery basket, the sherds were analyzed by locus. The processes that introduce these sherds into the Iron II archaeological record were addressed so that these sherds do not conflate numbers in contexts to which they do not belong (see Skibo, et al., 1989).

Regarding the presence of the sherd assemblage in the destruction stratum, a number of questions come to mind that must be addressed if behavioral identifications are given other remains preserved in the same context. First, if they did not come from the vessels in use at the time the Stratum VIB settlement was destroyed, then where did they come from? Many, in fact most, of the ceramics are Iron II in date, so how are they added to the archaeological record? Are pots missing from the de facto assemblage to which they should be associated and reconstructed? The answers to these questions should become apparent as formation processes in various contexts affecting this assemblage are better understood and mapped during the analysis of the Category 1 ceramics. Next, which of these sherds are in a primary context and thus reflect activities carried out at their find locations? Some of these sherds must be in primary context no longer serving in a functional capacity (i.e. garbage/drops), especially including the smaller ones laying on or pressed into floors. However, the more significant number of sherds in this category are substantial in both size and quantity and do not touch floors, so one would suspect that these sherds are not in a primary context. Also, it has been established well through ethnographic and ethnoarchaeological research that people living in sedentary communities rarely leave refuse in activity areas (Hayden and Cannon, 1983; 1984; Murray, 1980) and when they do it usually consists of small items missed in cleaning
More often, refuse such as that present in this category of ceramics consists of ceramics in a secondary context discarded away from their location of use and subsequently reclaimed (Schiffer, 1987: 113). So the next questions are related to these sherds' introduction. Were these sherds/remains introduced through roof collapse and/or wall fall/melt? Or perhaps, do they come from disturbance processes at later dates and in different contexts? The methods of processing and analysis of this ceramic category help address these questions.

Clues to the answers of the questions posed above can be addressed hopefully during the excavation and processing of the ceramics from Field IV. But a number of other questions that attempt to move beyond depositional issues and formation of the archaeological record also can be asked of these ceramics. Because ceramics are so common in the destruction levels at Iron II Tel Halif, and their function and context often can be established with confidence through the means described above, they are useful for interpreting domestic space included in the pillared dwelling at Tel Halif.

Once all of the above methods are used to classify the reconstructed vessels from Tel Halif into meaningful functional categories, and the sherd assemblage is analyzed for causes of patterns observed therein, the spatial distributions and frequencies observed among these different classes of ceramics are used to assess, first, the ravages of formation processes, then vessel relationships to permanent features and other classes of artifacts and refuse. The analysis determines ceramic use and if artifacts found in close proximity to one another can be useful in determining how spatially isolated groups of artifacts may have functioned – if it can be demonstrated that they are in a behavioral
context. Conversely, areas where specific vessel types are found or no vessels occur, can be telling about the use of space as well. These data are used to answer a series of basic questions concerning both the archaeological record of ceramics in destruction strata and behavioral information that can be learned from them.

**Questions Addressed**

These questions begin with what can be learned of and from the ceramics of the archaeological record of destruction strata. What do ceramic and the other artifactual data tell us about the usefulness of destruction deposits for reconstructing the past? Relatedly, how sensitive and useful is the ceramic record in destruction strata contexts as a subset of the archaeological record for interpreting the use of space? What are the sources for the ceramics introduced into the Field IV archaeological deposits, particularly those present in destruction debris? Which and how many of these ceramics are in a behavioral, primary, or secondary context? If it is determined that a number of the restorable ceramic vessels are indeed *de facto* refuse, then how sensitive are they as indicators for interpreting the use of space? Or, similarly, is the ceramic variability at Tel Halif sufficiently patterned as to allow inferences to be made of activities taking place in behavioral contexts in pillared dwellings? If so, what do the ceramics reflect – everyday activities or a defensive situation where everyday, normal activities were truncated? And if it is the former, is there a typical domestic assemblage and can a predictive model be made of the frequencies and occurrence of ceramic forms expected to be used at one time in a typical pillared dwelling? If it is determined that many of the ceramics and the other
artifactual remains are in or near their behavioral context, then a number of behavioral issues can be addressed.

The next series of questions moves beyond the ceramics and attempts to determine what can be learned from them regarding ancient behaviors and activities taking place in the pillared dwelling. Using the ceramic and other spatial data it can be asked, what activities take place in the pillared dwelling and how specialized is its use of space? Are certain areas living rooms, storage areas, kitchens, or associated with industrial/economic activities or ritual/cultic ones? Is it possible to reconstruct the individuals carrying out the activities in these areas (this is important since the household has been defined by activities)? Is there a “cultural template” for the way space is organized in the pillared dwelling, and what can this tell us about household organization? If these questions can be answered then one can address household organization.

Questions regarding social organization include the following. What can the Field IV remains tell us about subdivisions within society and their integration? What size population and density are represented in archaeological households? Should the archaeological household be associated with a nuclear or extended family. What was their access to local and exotic resources and products apportioned within the population? Was production carried out in the pillared dwelling? Does the excavated material reflect/suggest social, economic, or political situations known or suggested from other sources (i.e. ethnographic, biblical)? What is the relationship between the biblical bet 'av and the archaeological household? What does this tell us about household organization at
Iron II Tel Halif and its role in society during the Iron II? The dissertation attempts to address these questions based on the meticulous excavation and spatial analysis of artifacts recovered from the remains of a pillared dwelling and through the identification of activities taking place therein.

Through a better understanding of activities, it is hoped that this study can shed light on the kind of information that can and cannot be learned from studying the spatial location and context of ceramic vessels. In addition, it is hoped that the ceramic data, along with data learned from other sources, leads to a better understanding of the various activities taking place in domestic contexts of the Iron II and a better understanding of the larger social organization which it reflects. The remains from the destruction Stratum VIB are ideal for this type of analysis.

Summary

An enormous wealth of data is preserved in the matrix of destruction levels in tells as well attested by the sheer volume of artifacts often removed from their debris. Once the processes and depletions associated with formation processes are better understood and accounted for, destruction levels become very useful for reconstructing activities performed in past behavioral systems. The best way to approach destruction levels then is to carry out a spatial analysis which attempts to account for post-depositional processes on materials found in the destruction debris. This leads to a better understanding of the distributions of artifacts in the archaeological record and sound explanations of their patterning. Destruction strata yield excellent material for spatial
analyses which attempt to identify activity areas. While some studies approach spatial analysis through the delineation of the fundamental patterns of artifact discard (See Schiffer, 1972: 161-163) or disposal (Deal, 1985; Foster, 1960; Hayden and Cannon, 1983), this one does not due to the unique nature of destruction levels in general and the Iron II remains of Tell Halif specifically. The focus here is mapping primarily the ceramics but also the other artifacts, both movable and non-portable, in areas representing the archaeological household to determine activities and activity areas. By precisely mapping these artifacts, as well as disturbances to the archaeological record, the dissertation seeks to demonstrate that many of the artifacts found in Field IV are not far removed from the locations where they were used or stored immediately prior to the destruction of the Iron II settlement. They thus are useful indicators of the activities taking place in the domestic structures at Tel Halif. This information is vital for understanding the domestic environment at Iron II Tel Halif, including the identification of activities taking place in the pillared dwelling, and the identity of the people performing these activities. This understanding can be built upon, and inferences can be made regarding household organization as well as the broader understanding of Judah’s social, economic, and political organization during the late 8th century B.C.E. At the same time the potential value of this study for providing a better understanding of destruction levels as a subset of the archaeological record, particularly against the backdrop of textual, ethnographic and ethnoarchaeological studies, benefits greatly the larger archaeological community as a whole. This is due to the rich data provided by this study for addressing what exactly can be learned from the archaeological record about
past behavioral systems. Given the paucity of related Syria-Palestinian studies in mainstream archaeological literature, the material remains from Tel Halif analyzed and presented here provide an stimulating opportunity to remedy this condition (see Meskell, 1998 for similar situation in Egypt and Egyptology).
Chapter III

The Tel Halif Archaeological Data

This chapter deals with the archaeological data from Tel Halif itself. Tel Halif as a site is discussed in depth, including its history, both geological and occupational, and its archaeological investigation. This discussion is followed by a detailed description of Tel Halif's destruction stratum, Stratum VIB, and how its remains are analyzed to reveal domestic activities. The primary focus is the remains of one pillared dwelling uncovered during excavation by the Lahav Research Project in 1992 and 1993. Of special concern is the ceramics from this dwelling and what their spatial locations and relationships with their surroundings tells us about the use of space. This is attempted using a variety of analytical techniques including the study of formation processes, micro-grid mapping, microartifact analysis, residue analysis of ceramic vessels, and a spatial analysis (as outlined in Chapter II) that investigates the ceramics' relationships to one another as well as other movable artifacts and more permanent architectural and feature components. This study addresses some of the questions posed at the end of Chapter II and seeks to establish whether functionally distinct categories of ceramics can amplify or refine the architecture-based inferences suggested in Chapter II and the microartifact inferences suggested in this section. If so, what kind of resolution is possible when interpreting the way space was used and who used that space during the Iron II Period? But all of this
begins with a review of the history of Tel Halif.

The History of Tel Halif

As stated in the introduction, excavations at Tell Halif revealed an Iron II settlement immediately below the modern ground surface typical of G.R.H. Wright’s category of a small fortified rural town (1985: 59). It likely served a double purpose, protecting the agricultural and livestock raising community contained therein and acting as a component in the defensive alignment of the kingdom of Judah protecting its interests and southwestern flank against attack from that direction. Its position along a southern branch of the via Maris leading into the Hill Country to Hebron and on to Jerusalem beyond added to its importance in the latter capacity (see Fig. 1). This fundamental understanding of the nature of Tel Halif’s Iron II settlement is tested and elaborated upon with the ceramic data presented in this chapter. These data derive from a spatial analysis of restorable ceramic vessels excavated from Tel Halif’s in Field IV. The ceramics were removed from deposits representing domestic structures from a settlement destroyed violently and suddenly in a town-wide conflagration near the end of the 8th century B.C.E. In this analysis the ceramic vessels are compared with other artifacts, both movable and non-movable, from the same spatial context in order to better understand the use of that space. General ethnographic observations on the relationship between vessel form and function and archaeometric techniques are employed to better understand vessel function. Once vessels are mapped along with other artifacts and de facto refuse, they are used to interpret activity areas and the use of space in domestic
contexts. However, before these data can be brought to bear on the interpretation of domestic space it is necessary to place these remains in the greater spatial and temporal context of the Halif settlement as a whole. This is necessary as earlier and later remains, along with the natural environment, impact the deposition and location of the Iron II remains in their present setting. For this reason, a review is presented below of the Halif area’s history including geography, geomorphology, and climate, as well as the settlement’s occupational history as known through archaeological investigation in all areas of the tell. Through this review, a better understanding will be gained of the genesis of the archaeological remains analyzed in this chapter.

**Geography**

Tell Halif is located in a transitional area where two geomorphological and two climate zones meet. Geographically, it is situated on a small hill rising approximately 490 m above sea level where the western flanks of the Hebron mountains and the chalky hills of the Shephelah meet the foothills area of the northern Negev as it blends into the coastal plain of northern Israel without any line of clear demarcation (Evenari et al., 1982: 43). Climatically, it is located in a transitional zone between a Mediterranean clime to the north and the semi-arid, Irano-Turanian clime of the northern Negev desert to the south.

**Geomorphology**

From a geomorphological viewpoint, Halif is part of the higher Shephelah (380-
500 m. above Mediterranean sea level) or the eastern-most and southern extension of the Judean foothills (Laustrup, 1976: 32). Geologically, the formations surrounding the tell form the eastern boundary of a synclinorium which lies between the Hebron Anticline to the east and the Heletz Anticline to the west. The tell itself is situated less than 2 km west of the Hebron Anticline and separated from it by a flat-bottomed alluvial valley oriented in a north-south direction. This valley visibly separates the Cretaceous limestones and dolomites of the Hebron mountains from the Eocene chalks and Miocene clastics and bioclastics of the Halif area. The soils and caliche (hardpan) of the Halif area formed on these Eocene and Miocene deposits.

The bedrock on which Tell Halif itself rests is a soft Eocene chalk which reaches a thickness of about 400 m (Laustrup, 1977: 1). This chalk was deposited in the north-south oriented Ziqlag-Lachish syncline which is structurally related to the collision of the Indian sub-continent with the Asian mainland as part of the processes involved in plate tectonics during the Oligocene some 35 million years ago (Golik, 1960). This process was part of a greater sequence of deformation, folding, and faulting which took place between the early Eocene and the Miocene (Picard, 1960). The emergence of the land now referred to as the Levant may have begun in the Late Eocene from submarine ridges and the final anticlinal-synclinal fold patterns may have been evident at the end of the Oligocene (Picard, 1970). These events helped to produce the foothills or Shephelah region between the coastal plain and the Hebron mountains. The hilly nature of the Shephelah also owes its existence to abrasion by the Neogene sea and later dissection by fluvial erosion. The latter is especially the case during the quaternary as increased rainfall
helped the modern landscape to evolve by cutting many of the wadis and valleys so characteristic of the hill country area today (Greitzer, 1960; Laustrup, 1977). The wadi system in the immediate area of Tel Halif includes a small secondary seasonal drainage, Nahal Tillah, which feeds the larger Nahal Grar to the west before ultimately debauching its seasonal runoff waters into the Nahal Besor less than 10 km from the Mediterranean coast.

The Eocene chalks which make up the Halif area are covered by a specialized variety of caliche termed “nari” by Blakenshore (1929), often separating the chalks from their overlying soils. This material forms near the ground surface of permeable calcareous rocks due to its continued wetting and drying. An irreversible reaction of carbonate deposition occurs producing an indurated surface impermeable to water and plant roots. It is above this hardpan that the shallow soils of the Halif area form.

Dan. et al (1972) record brown lithosols and loessial arid brown soils as characterizing the Halif area. Laustrup (1976: 26) also records the presence of rendzina desert lithosols which are only of minor significance. The brown lithosols are produced from the underlying calcareous parent material consisting of chalk, marl, limestone, and conglomerates. These are shallow and azonal usually less than .20 m deep and lie directly on the nari crust (Laustrup, 1977: 4). The loessial arid brown soils are either aeolian or redeposited by water. The latter is especially the case for the valley bottoms where soils are deep, while the former is responsible for the slopes of the hills. A greater thickness of loess deposits is present on north facing slopes indicating an origin in the Sinai and Sahara deserts (Yaalon and Dan, 1974). Similar deposits located 12 km south
of the Lahav area have been dated from the middle Pleistocene to the Holocene on the basis of gastropods and flint implements (Picard and Solomonica, 1936; Lastrup, 1977: 6). These deposits, which are typical of the Halif area, are restricted to the hilly areas north of the Beer Sheva basin. Climate has much to do with their formation.

Climate

Tel Halif is located in a transitional area between two climatic zones; these include the Mediterranean and the semi-arid Irano-Turanian zones, forming an arid Mediterranean climate. This climate averages approximately 400 mm of rainfall annually (Levy et al., 1997: 3) which falls almost exclusively (75-95%) during the winter months from November to March (Angel, 1970: 88). Most of this rainfall comes in quick showers of 10 mm of precipitation or less (Evenari et al., 1971: 109). The mean temperature is 20 degrees C with the coldest temperatures occurring in January (mean = 11-12 degrees C) and warmest occurring in July (26-27 degrees C) (Lastrup, 1977: 7).

As with the climate, Halif is a meeting place for Mediterranean and desert flora. Danin (1975) designated the plant community presently growing in the hills around Lahav as part of the Sarcopoterium spinosum-Phlomis brachiodon association or BP2 based on the presence and relative cover of plant species he collected in the area. This association, as part of the Ballotetalia Undulatae (B) constitutes a transition between the Mediterranean and Irano-Turanian floras. The remainder of the association's taxonomic hierarchy is listed below:

Class QUERCETA CALLIPRINI
Danin collected and identified 247 species of plants in the Lahav area of which 197 were ephemerals or ephemeroids (Danin, 1975). Laustrup (1977: 10-11), working with the Lahav Research Project, collected all observable perennial species present in the Tel Halif area during the summer of 1977. Since his collection occurred during the summer months of June and July, the number of species collected was dramatically lower than Danin’s. However, the following were identified:

- *Archusa strigosa* - perennial
- *Artiplex halimus* - shrub (1-2 m) (salt bush or silvery orache)
- *Ballota undulata*
- *Capparis spinosa*
- *Coridothymus capitatus*
- *Echium angustifolium*
- *Echinops polyceras*
- *Foeniculum vulgare*
- *Hyparrhenia hirta*
- *Phagnalon rupestris* - good “wool” for starting fires
- *Phlomis brachyodon* - (Shalhaveet) in desert = relic from when wetter climate prevailed
- *Polygonum equisetiforme* - good for mattresses, sheler (no thorns, scent,
waterey) epidermal walls swell to absorb water

*Salsola vermiculata* - non arboreal dominat in chalky or marly ground

*Salvia dominica*

*Sarcopoterium spinosum* - prickly, shrubby burnet (thorny burnet) sensitive to shade- disappears in forests and maquis) relic of wetter clime

*Scrophularia xanthoglossa* - stem assimulants for water absorption

*Teucrium polium* - used in teas and to alleviate stomach aches

*Thymelaea hirsuta*

The vegetation, as listed above, is typical of a Mediterranean garigue (Zohary, 1973; Rosen, 1986: 54), however this has not always been the case.

The primary vegetation of the Lahav area is not known since agriculture long ago destroyed its natural vegetative ground cover (Evenari et al. 1982: 49). At one time it did support a Mediterranean climax evergreen forest and shaub (Zohary, 1973). This was most likely the case during the Early Bronze Age (3500-2300 B.C.E.) – a time when climatic conditions were somewhat moister than the present (Rosen, 1986: 62, 73). After a period of drying, the Iron Age was characterized by a moister climate, yet the forests appear to have been unable to rejuvenate themselves. Some possible explanations for this include: 1) overuse of timber for building and fuel (Warburton, 1980: 16); 2) clearing of level land for agriculture (Warburton, 1980: 16); 3) clearing of hillsides and building of terraces for the planting of olive, fig, and other fruit trees and grape vines (Borowski, 1986: 1988; Karmon, 1971: 33; Rosen, 1986: 67; Stager, 1976); and/or 4) goat and sheep grazing prevented the growth of new trees (Warburton, 1980: 16).
Once the forests were destroyed and were unable to rejuvenate themselves, they were replaced by secondary vegetation with a climax of dwarf trees and high bushes (maquis) or by a lower type of vegetation of dwarf and low thorny shrubs (garigue) (Karmon. 1971: 33). The area around Tell Halif has supported either maquis or garigue forms of vegetation since at least the Iron II and probably earlier, until the present.

Reforestation attempts have been made in the present. Indigenous species have been replaced by pines, cypresses, Eucalypti, and other trees, all not uncommon to the Halif area. With the establishment of Kibbutz Lahav in 1952 on the southeastern periphery of the tell, a forest of Jerusalem Pines (the Lahav Forest) was planted to the Kibbutz’s north and west. This forest surrounds Tell Halif on its north, west, and northeast sides. Though the summit of the tell was left, for the most part, unplanted, the slopes of the tell were planted and a couple of trees were even planted on the top of its eastern most face. Some of these trees fall within the Field IV area of study. It was shortly after the reforestation efforts began that excavation projects began to target the Tel Halif environs. These projects revealed a site periodically occupied and abandoned for the past six millennia.

Excavations

The earliest archaeological investigations at Tel Halif and its surrounding

Following the 1999 excavation project of the Lahav Research Project, a fire spread from a picnic area below the western slope of the tell up this slope and onto the summit of the tell. The subsequent fire and smoke damage resulted in the destruction and removal of all trees from the surface of the tell and all trees growing on its western slope.
environs were carried out as salvage operations by Israel’s Department of Antiquities (now the Israel Antiquity Authority). A. Biran and R. Gophna worked in an Iron Age cemetery south of the tell in 1970 (Biran and Gophna, 1970), Gophna returned in 1972 and excavated early remains on the eastern terrace dating to the 4th millennium B.C.E. (Gophna, 1972: 47), R. Gophna and V. Susman carried out excavations in a Roman Byzantine cemetery at the base of the tell to the west (Gophna and Susman, 1974), and D. Alon exposed several 4th millennium B.C.E. structures on the eastern terrace in 1974 (Alon, 1974: 28; 1977a, 1977b; Alon and Yekutieli, 1995). Salvage work in addition to the work by the Department of Antiquities was undertaken by J. Seger (then of the HUC) in 1972 when he supervised excavation in two areas where caves and tombs were either discovered or disturbed during road construction (Seger, 1972). The caves were disturbed on the terrace east of the tell and several tombs from a late Iron I - early Iron II cemetery were discovered south of the tell and subsequently investigated (Seger, 1972: 161).

Long-term research began at Tel Halif in 1976 with the creation of the Lahav Research Project (LRP). This project, made up of a consortium of American institutions and scholars, launched an integrated study of Halif and its environs including regional survey, excavation, and ethnographic study (Seger, 1997: 325). The LRP is currently in its third phase of investigations. Phase I efforts (1976, 1977, 1979, and 1980) concentrated in three fields on the mound’s summit (Fields I, II, III) and a satellite project in Cave A below Field I. Phase II efforts (1983, 1986, 1987, and 1989) continued work in the three fields on the mound’s summit but expanded also to include excavations in
two fields on the tell's eastern terrace (Sites 101 and 301) and a site survey north of the
tell within a five km radius (Seger et al., 1990). Some additional salvage work was
carried out on the eastern terrace in 1985 under the direction of P. Jacobs (Jacobs, 1985).
Phase III (1992, 1993, 1999) efforts continued work on the eastern terrace (in Site 101
only), but its primary focus was the investigation of deposits near the mound's modern
surface in a new field (Field IV) on the western edge of the tell. J. Seger acted as director
of the Project during Phases I and II and as primary investigator during the Phase III
investigations. P. Jacobs and O. Borowski co-directed field excavations during Phase III.

More recent excavations in the Halif area were carried out by the Nahal Tillah
project directed by T. Levy of the University of California, San Diego during the
summers of 1994 and 1995 (Levy et al., 1997). Work focused on the eastern terrace of
Halif east of the LRP's Site 101 and immediately adjacent and south of its Site 301 and
on cave sites near Abu Hof approximately 2 km southwest of Tel Halif. These efforts
focused on some of the earliest substantial remains at Halif, investigating the nature of
Egyptian-Canaanite interaction during the second half of the 4th millennium B.C.E., and
processes leading to secondary state formation (Levy et al., 1997: 1-3).

Site Occupation

These combined excavations have produced a wealth of information about Tel
Halif's occupation history. Traces of occupation from the Chalcolithic through the
Byzantine and Islamic periods have been uncovered as well as evidence of occupation
well into the Arab period during the late 19th and early 20th centuries C.E. (Seger, 1993:}
Seventeen major strata have been identified representing the various occupations at Halif.

The earliest strata at Halif belong to the late Chalcolithic (Stratum XVII) and the Early Bronze I (Stratum XVI) periods (ca. 3500 - 3000 B.C.E.) and are best known from Tel Halif's eastern terrace. Evidence from these strata reveal a flourishing village/regional center in commercial contact with early dynastic Egypt (Dessel, 1991; Seger, 1997: 325). It is quite a bit larger (approximately 16 ha.) than the average for villages (ca. 10 ha.) in southern Palestine at this time (Levy et al., 1997: 3). Cave deposits, as well as houses, tombs, a terrace wall, and numerous bins and silos, accompanied by abundant and rich in situ artifacts were exposed.

Following the EB I settlement, Tel Halif was unoccupied for a number of years but flourished once again during the Early Bronze III (ca. 2600-2300 B.C.E.) as evidenced by four distinct architectural phases (Strata XV-XII). The tell proper was occupied for the first time as a fortified city during the transitional EB II-IIIA (Stratum XV). It was well-planned under a strong central authority as evidenced by its substantial fortification system complete with city wall, towers, and crushed limestone glacis. Several partial structures from the EB III strata were excavated, including rooms of both a domestic nature and an economic nature (Stratum IV) evidenced by midden deposits and a cooking platform for the former (Strata XIII and XII), and for the latter, a large number of artifacts associated with an active flint knapping industry including bone/antler and lithic striking tools, a number of un-used Canaanian-type flint blades, fan scrapers, and numerous flint cores. These latter attest to a very active flint tool making industry at
Halif, as its inhabitants exploited the local, high-quality flint mined from the underlying Eocene chalks. All four EB cities were destroyed by fire, the last in the 24th century B.C.E., possibly to be associated with forays of the Egyptian pharaohs of the late Fifth and Sixth Dynasties (Seger, 1993: 556; 1997: 325).

After the destruction of the last EB III city, Halif lay virtually abandoned for a millennium, or until ca. 1500 B.C.E. At this time it was re-settled by occupants who built the first of four Late Bronze Age (LB) cities (Strata XI-VIII). These are best represented by an Egyptian style residence complete with numerous artifacts on floors and a number of stone-lined bins (Seger, 1983; Jacobs, 1987; Seger et al., 1990). The residency was first occupied during Stratum X in the 15th century B.C.E. (LB IB) and used through Stratum IX in the 14th century B.C.E. (LB IIA). The last LB stratum (Stratum VIII) is represented by a number of rooms whose numerous resurfacings attest to the intensity of this occupation during the 13th century B.C.E. (LB IIIB). This stratum ends in a destruction ca. 1200 B.C.E.

Modest occupation (Stratum VII) during the Iron I (ca. 1200-900 B.C.E.) is represented by scant remains, primarily consisting of poorly preserved partial surfaces and floors from different areas of the tell (Fields I, II, and III). Modest architectural shifts early in this period suggest good continuity between the last LB Age stratum and remains of the Iron I. Noteworthy objects include several degenerate-style Philistine potsherds from the late 11th - 10th century B.C.E. and suggest some connection between Halif and the Philistine coastal plain (Seger, 1993: 557).

During the Iron Age II (9th- 8th centuries B.C.E.), a time when occupation in the
northern Negev was extensive, Tel Halif was home to a prominent settlement (Stratum VI) best described as a small fortified village/town. This settlement (Stratum VIB) began in the 9th century B.C.E. and included a substantial fortification system consisting of a casemate wall with projecting towers and fronted by a cobblestone-faced glacis. This is perhaps the best known settlement at Halif as its remains have been found in all excavation fields on the tell’s summit (I, II, III, and IV) as well as Site 301 from the eastern terrace (Seger, 1997: 325; Jacobs, 1985). In addition to the fortifications excavations have yielded typical Iron II pillared dwellings, a number of casemate rooms, large plastered cisterns hewn into the bedrock for water storage, and a large cemetery on the hill opposite the tell to the south (Site 72) (Jacobs and Borowski, 1992). This settlement was destroyed by fire at the end of the 8th century B.C.E. Re-settlement occurred rapidly (Stratum VIA), perhaps by survivors returning to the settlement shortly after its destruction. This squatter-like phase of occupation is apparent in some of the Stratum VIB structures which were cleared of destruction debris, rebuilt with minor modifications, and re-used. In some instances destruction debris was not removed but leveled and covered the VIA floors, sealing the VIB destruction debris. This occupation lasted only a brief period before the site was once again abandoned, probably during the early 7th century B.C.E. While the Stratum VIA settlement did not end in a violent conflagration like its predecessor, a considerable quantity of de facto refuse was found preserved on the floors of this stratum. Based on typological studies, the material from both Stratum VIB and Stratum VIA is very close in date. An absolute date to the end of the 8th century B.C.E. and the beginning of the 7th century B.C.E. fits the material well.
The date of the Stratum VIB material, along with the destruction debris, numerous iron arrowheads, sling stones, and the presence two “Imlk” jar stamps (albeit in disturbed contexts), make a compelling case for Halif suffering the same ill fate as many other Judean cities and towns at the hands of the invading Assyrians late in the 8th century B.C.E. It is tempting further to associate this destruction with the Assyrian king, Sennacherib, as he traveled from Gaza to Lachish and on to Jerusalem during his 701 B.C.E. campaign to quell rebellion of Assyria’s vassal states and provinces shortly after his ascension to the throne. He claims to have

“laid siege to 46 of [Hezekiah’s] strong cities, walled forts and to the countless small villages in their vicinity, and conquered (them) by means of well stamped (earth) ramps, and battering-rams brought (thus) near (to the walls) (combined with) the attack by foot soldiers, (using) mines, breeches as well as sapper work” (see Prism; Luckenbill, 1927).

According to the archaeological record of the southern Levant this was no idle boast, for virtually every site yielding late 8th century B.C.E. archaeological remains does so in the matrix of a fiery destruction. The Assyrian empire appears to have backed its boasts.

Tel Halif was re-settled (Stratum V) during the Persian Period (ca. 5th cent. B.C.E.). Excavations have yielded significant architecture associated with this stratum in only one area of the tell (Field II) where the poorly preserved remains of a large building exist in their foundation levels only – possibly a barracks or other military installation based on its related artifacts (Seger, 1997: 326). In addition, a number of bins, pits (some stone-lined), and patchy surface and floor deposits of this stratum were excavated throughout the site. The horizontal extent of the Persian period settlement reached across most of the present tell surface. A possible favissa or "ritual dump" was identified in
Field IV based on a large number of figurine fragments (some are partially restorable) and lamp fragments. However, no horizontal boundaries of this deposit were defined. These deposits suggest the presence of an active shrine at the site during the Persian period from which a large quantity of small figurines were removed, apparently broken in a deliberate manner, and dumped into a fill directly above houses of the Iron II (Stratum VIB) (Jacobs, 1993).

Two sub-phases of a stratum representing the Hellenistic period (Stratum IV) have been identified and dated to the 4th through 2nd centuries B.C.E. and are represented by one large building of a domestic nature (indicated by several ovens), graves, and some small finds. The large building was re-used continuously though all phases of this stratum until the site was abandoned during the 2nd century B.C.E.

After a 3-4 century hiatus, Tel Halif experienced a dramatic recovery when it was re-occupied (Stratum III) during the Roman-Byzantine Period (2nd century B.C.E. - 5th century C.E.). Remains from the late Roman and Byzantine periods are abundant and substantial, both from the tell and the surrounding area. The primary settlement appears to have been at the northeast foot of the tell where numerous natural caves were used for habitation (Seger, 1983: 17; 1993: 559). This settlement should almost certainly be identified with Hurvat Tilla mentioned in the Onomasticon of Eusebius (Abel, 1938: 318; Biran and Gophna, 1970: 153; Seger, 1983: 20). During this period the Halif settlement, as well as the surrounding area, experienced its greatest prosperity since the Iron II period, participating in active trade as evidenced by the nature of the finds from the Halif settlement and its associated cemetery (Site 66) (Gophna and Zusman, 1974; Borowski.
The latest occupations at Tel Halif occur during the Islamic (Stratum II) and modern Arab (Stratum I) periods. These are found mainly in the caves northeast of the site just below Field I, where a long sequence of occupation is revealed dating back to at least the Mamluke period (ca. 1300 C.E.) and possibly into the Abbasid (ca. 750-1200 C.E.) and earlier Umayyad (ca. 700 C.E.) periods (Seger, 1983: 18). The more substantial remains however date to the more recent late 19th - early 20th century C.E. Khirbet Khuweilifeh settlement (Stratum I). Remains from both strata include cave complexes with accompanying buildings and walled courtyards built predominantly of materials robbed from the earlier Roman-Byzantine structures and probably Iron II fortification elements. The nature of these structures and ethnographic research suggests they were largely occupied by Arab fellahin acting as sharecroppers, shepherds, craftsmen, and traders for and with the local bedouin (Seger, 1983: 18-19; 1997: 326). The Arabic identification of the site survived to the present through verbal traditions passed down through the local bedouin and through a few references in 19th century travel logs. A number of attempts to discover the ancient pre-Islamic identification have been made.

**Site Identification**

Early in this century, Tel Halif was identified with biblical Ziklag – the city, according to biblical texts, given to David by Achish, the Philistine king of Gath (1 Sam. 27: 2). When David was estranged from Saul’s court (1 Sam. 27: 6 ff.). A. Alt first made
this connection (1935: 318)\textsuperscript{20} and was followed by F. M. Abel in his *Geographie de la Palestine* (1938: 318). This association was based on Tel Halif’s proximity to the neighboring site of Khirbet Umm er-Rammamin (Arabic for “Mother of the Pomegranates”), a site lying 1 km to the south of Halif. Umm er-Rammamin had been previously identified as Hurvat Rimmon (or biblical Rimmon/Ain Rimmon) by C. R. Conder and H. H. Kitchener while working for the Palestine Exploration Fund during their systematic survey of western Palestine (the first ever attempted) that began in 1865. This was well before researchers working in Palestine understood that the mounds identified as “tells” by the local inhabitants entombed the remains of buried, ancient cities superimposed one on top of another. The identification of Rammamin with biblical Rimmon was based on the similarity of the modern Arabic place name of the site to the biblical city named in the territorial lists of Judah (Josh. 15: 32) and as part of the inheritance of the tribe of Simeon (Josh. 19: 7). Conder and Kitchener identified the ruins discernable at Tel Halif as belonging to the Byzantine settlement of Tala or Tilla. According to the *Onomasticon* of Eusebius, two large Jewish villages identified as Tala and Rimmon were located 26 km south of Bet Guvrin in the Daroma region (Kloner, 1980: 228). Geographically, this places them exactly in the area of Tel Halif (or Khuweilifeh) and Khirbet Umm-er Rammamin. Abel followed Conder and Kitchener in

\textsuperscript{20} Alt identifies Khuweilifeh with Ziklag on the basis of no other likely candidates in the general vicinity of Khuweilifeh, where he believed Ziklag should be located. However, he appears bothered by its geographical location well east of the Philistine coastal plain, leading him to waffle a bit by suggesting Zephat Hormah as a possible alternative identification (Alt. 1935: 318-319).
this identification but believed Halif also to be the site of the older Ziklag which was mentioned with Rimmon in the Judahite (Josh 15: 31-32) and Simeonite (Josh 19: 6-7) town lists.21 The most contentious affronts to this association of Tel Halif with Ziklag are provided by recent evidence excavated at Tel Sera west of Halif and a better understanding of archaeological remains from Khirbet Umm er-Rammamin.

Recent excavations at Tel Sera revealed the remains of buildings made of ashlar-type masonry and numerous Philistine-type small finds from early Iron II strata. This, along with the site's geographical location well within the traditional boundaries of the Philistine coastal plain, make this site an appealing candidate for biblical Ziklag (Oren. 1982).22 Additionally, there are problems with the identification of Khirbet Umm er-Rammamin with biblical Rimmon.

Recent excavations at this site reveal that it was not occupied until the end of the 2nd century B.C.E. (Kloner, 1980: 227-228). Thus its association with any site from the Iron Age II is tenuous at best. Gophna has suggested that Tel Halif, a site with substantial Iron II remains and possible Judahite connections, was the biblical Rimmon referred to in the Judahite and Simeonite town's lists of Joshua (Biran and Gophna, 1970: 151: no. 3). He hypothesizes that years after its abandonment, its name was later assumed by the first inhabitants returning to the area after a long hiatus - the settlers of the Hurvat Rimmon

21 Additional evidence associating Halif with biblical Ziklag can be found in Seger (1984).
22 Y. Aharoni had already suggested that Halif was too far east to be Ziklag and suggested Tels es-Sharia (also called Tel Sera) as an alternative candidate (Aharoni, 1976: 259 no. 7).
described in Eusebius (Biran and Gophna, 1970: 151, no. 3; see also Borowski, 1988).

Later, when Tel Halif itself was re-occupied the inhabitants simply called their settlement "Tilla," Aramaic for "the tell," as the name "Rimmon" was no longer available (Seger, 1983: 20). Tilla is the name that survived on maps until 1937 when the official name became Khirbet Khuweilifeh, Arabic for "abandoned village of the Caliph."

Other suggested biblical identifications for Tel Halif include Goshen, a town "in the highlands" or Judean hills (Josh. 15: 51) (Aharoni, 1976: 184, 300) and Hormah, a town listed in the inheritance of Simeon (Josh. 19: 4) (Na’am, 1980: 136; also tentatively suggested by Alt, 1935: 318). However, the current data, including archaeological, geographical, and name etiology, would point to Rimmon as the strongest candidate for the identification of the Iron Age settlement at Tel Halif (see especially Borowski, 1988).

This review has detailed the history of the Tel Halif area. It includes an examination of the natural history with consideration for geography, geomorphology, and climate, and the settlement's occupational history as revealed through archaeological and historical investigation. Information learned from this review aids in the identification of those processes, including behavioral, natural, and cultural processes, which account for the spatial location of many of the artifacts recovered by the Lahav Research Project's excavations in Field IV. Next a review of the excavation of Field IV is embarked upon to set the stage for the spatial analysis of the de facto refuse from the Iron II pillared dwelling excavated from the northern units of this Field IV.

This review briefly describes the area of Field IV and the types of remains that
were uncovered therein before it presents a closer examination of the pillared dwelling used in this analysis. This examination reviews how the dwelling was approached archaeologically, and how this approach was able to demonstrate the effects of formation processes on its preserved remains. Through careful three-dimensional mapping and explicit studies of formation processes, the genesis of the archaeological deposits in Field IV can be well understood.

The Field IV Remains at Tel Halif

Tel Halif's Field IV was probed in 1989 and extensively investigated during the 1992 and 1993 field seasons of the Lahav Research Project's Phase III. An area measuring approximately 15 x 35 meters was excavated above the western slope of the tell (see Fig. 2, this chapter). Excavations revealed a narrow band of three to four well-preserved Iron II pillared dwellings placed side by side and ringing the perimeter of the tell. These dwellings were backed against the settlement's Iron II casemate wall, sandwiched in between the empty space of the tell's western slope on one side and heavily disturbed areas on the other. But inside the dwellings, disturbances were less apparent. Many of the artifacts used by the inhabitants of the settlement were preserved on living floors, possibly near their use locations where they were active in a systemic or behavioral context. These were preserved under a meter of black, grey, and brown ash, decaying mudbrick, burnt beams, and other debris from the collapsing structures. These refuse and other remains provide an excellent opportunity for learning detailed information about the nature of the Iron II settlement at Halif – particularly the
organization of domestic space. With this in mind the remainder of this study focuses on one well-preserved pillared dwelling excavated from the north end of Field IV (see Fig. 3). This dwelling is described in detail as it has been revealed archaeologically and a spatial study is undertaken on its preserved remains.

The Pillared Dwelling

The pillared dwelling in the northern areas of Field IV was excavated using the meticulous procedures described in Chapter I so that efficient and detailed data recovery was provided. These data were collected and recorded with the utmost care to stratigraphic excavation with particular attention given to bonding and other structural relationships between walls and other features. Use was made of the traditional balk-debris method of field excavation. Each artifact recovered from the destruction debris in the dwelling was provenienced with three-dimensional information using primarily the "magic square" and relative height above sea level for control. Virtually every bit of excavated soil from the modern tell surface down to beneath the Iron II floors was sifted for small fragments of artifacts using 1/4 inch mesh screen. All floors were sampled using smaller mesh to test for microartifacts. Microartifacts from .25 mm to 30 mm in size were collected from these samples in size graduated screens. With the use of both sifting techniques, a greater number of small artifacts were retrieved, such as numerous small fauna, bullae, weaving tools and the like. Consequently, notions of how restorable or complete many artifacts were became more a question of preservation and disturbance than methodology. These sifting and sampling techniques along with careful three-
dimensional excavation and mapping provided well understood architectural plans of the pillared dwelling and well-provenienced material remains from the debris accumulated in its environs.

The pillared dwelling analyzed in the present study covers much of the northern portion of Tel Halif’s Field IV, including most of the areas (5 x 5 m excavation units) designated F7, F8, G7, G8, H7, and parts of areas G6 and H8 (see Fig. 2). The structure measures east to west approximately 11 - 12 m. and north to south approximately 9.5 m. It possesses many of the features so common in pillared dwellings of the Iron Age. These include a row of broad rooms (two) set across the rear of the structure and three long-rooms extending out perpendicularly through the remainder of the compound (see fig. 4). The two broad rooms are divided unevenly as is typical in most pillared dwellings and incorporated into a casemate defense system. Two of the three long rooms (the northern two) are separated by at least two pillars, and possibly a third. The third long room is separated from the other two by a solid wall (probably with a doorway in between).

Walls are built on stone foundations two rows wide and several courses high (range 2-6), and most of them were topped with mudbricks some of which are preserved in place on the stone foundations (e.g. L. F7003 and L. G8005). The floors of the broad rooms are level and well-laid with small cobbles. Earthen floors predominate in the long rooms. However two of the pillared long rooms are covered partially by a flagstone floor (the central room) and a small cobble floor (the northern room) (see Fig. 3). Numerous installations, artifacts, and burned debris are scattered throughout the structure. They lay on floors and in the ashy destruction debris which seals them. These remains are
discussed later by room and by area.

The pillared dwelling is divided into five rooms for the purpose of the following discussion: two broad rooms (Rooms 1 and 2) and three long rooms (Rooms 3, 4, and 5) (see Fig. 4). These divisions are based on space segregated/divided by architectural features – primarily walls and pillars. Further subdivisions have been made in all rooms except for Room 1. These divisions are based on spatially segregated artifacts, and their associations with permanent features (e.g. architecture and installations), and other refuse occurring in rooms. On this basis the five rooms are further divided into thirteen areas individually identified with letters: Areas A, B, C, D, E, F, G, H, I, J, K, L, and M (see Fig. 5). Among the debris are numerous installations (food processing, storage, etc.), ovens, grinding implements, shallow pits, weaving implements, scale weights, loom weights, “cultic” paraphernalia (figurines, standing stones), bullae, seed remains, articles of personal adornment, agricultural tools, numerous faunal remains, and 81 restorable ceramic vessels. While it is possible that each of the spatially segregated groups of objects, features, and refuse that form the basis for these areas are the direct result of past behaviors such interpretations are not be ventured until other sources that introduce patterning and variability into the archaeological record are investigated.

**Studying Formation Processes**

Before credible behavioral inferences can be rendered observed phenomena from the Field IV pillared dwelling patterns introduced by formation processes that often distort the behavioral information sought by archaeologists must be systematically
investigated and methods found for taking them into account (Schiffer, 1985: 19; cf., 1981: 1983; 1987). Thus, when dealing with the *de facto* refuse of Tel Halif, items removed, added, or patterned by various formation processes, active on floor assemblages and other remains must be segregated. The degree and nature of any depletions or additions to the *de facto* refuse must be assessed in order to make credible behavioral inferences from destruction debris and floor assemblages from the pillared dwelling. While it is difficult to identify and isolate all agents active on archaeological remains, systematic attempts are made to account for as many disturbance processes as possible and assess the degree and nature of any depletions of the *de facto* refuse. This is attempted using a strategy adapted from Montgomery (Montgomery, 1994). With little change, procedures she proposed for analysis of southwest American sites can be successfully applied to the multi-layered tells of the Near East. As outlined in Chapter I these procedures are followed to test for cultural and natural formation processes in various contexts.

**Testing for Cultural Formation Processes**

**Step 1**

The first step for testing the effects of cultural formation processes is to compile a list of possible cultural processes active in behavioral, site, and archaeological contexts. The list of possible cultural formation processes and agents affecting the archaeological record presented below is assembled from Carr (1987), Montgomery (1994), and Schiffer (1985, 1987). These cultural formation processes are divided into cultural depositional
processes, reclamation processes, and disturbance processes. These processes are tested for in the behavioral, site, and archaeological contexts.

**List of possible processes active in the behavioral context**

**Depositional processes:**
- agents active on floors
  - items lost on floors
  - primary refuse deposited during use
  - secondary refuse deposited during use
  - refuse deposited during the abandonment period of a structure’s use
    - ritual deposits
      - *de facto* refuse deposited at the abandonment of a structure
    - Siege specific assemblages
      - surplus storage
  - refuse left by squatters during temporary use of the structure
  - secondary refuse deposited by the remaining inhabitants
  - trampling

**Reclamation processes active in behavioral context**
- looting
- reclaimed secondary refuse
  - recycling
  - scavenging

**List of possible processes active in the site context**

**Depositional processes**
- *de facto* refuse deposited when a structure is abandoned
- refuse deposited in a structure during an abandonment period
  - refuse deposited as defacto refuse
  - refuse left by squatters during temporary use of the structure
  - secondary refuse deposited by the remaining inhabitants
  - refuse introduced by decaying structures upon abandonment
  - trampling
  - curation

**Reclamation processes**
- occupational variability and re-occupation
- reincorporation and salvage
- scavenging
  - gleaning
- pothunting
  - collecting
  - looting
Disturbance processes
- earth moving processes
  - digging of foundation trenches for walls.
  - digging of pits of various types
  - digging of cisterns
  - leveling activities
- surficial processes
  - plowing
  - trampling

List of possible processes active in the archaeological context
Reclamation processes
- archaeology
  - incomplete recovery
  - limited exposures
  - poor methodology
    - unsystematic collection and classification of artifacts
    - misclassification of artifacts
- scavenging
- pot hunting
  - collecting
  - looting
Disturbance processes
- earth moving processes
- leveling activities
- surficial processes
  - trampling

Cultural Processes Possibly Active in the Behavioral Context

Many processes, especially depositional and reclamation processes, are active in the behavioral context and affect archaeological remains – especially those on floors. They can lead to the deposition of primary refuse during the main period of a structure's use. Examples include sherds of a broken vessel or items lost in everyday activities, then becoming incorporated into floors through trampling (Schiffer, 1985: 24). Secondary
refuse can be introduced onto floors through a number of sources in the behavioral context. This refuse may be collected for re-use (e.g. ceramic sherds collected for use as temper or ostraca) or it may fall onto floors from walls and ceilings in which it has been re-used. Refuse of several kinds is laid down during the abandonment of a structure (Schiffer, 1985: 24).

Ritual deposits of de facto refuse may be left behind when a structure is abandoned or left behind in secondary refuse when discarded ceremonially (e.g. favissa) (see Schiffer, 1985: 24). De facto refuse also may be deposited at the abandonment of a structure (Schiffer, 1985: 24). In rapid abandonments associated with destruction through warfare, refuse can be plentiful perhaps because of increased storage to offset stresses or shortages caused by siege. Also, artifacts can be added to floors through other processes associated with the collapse of roofs and walls (Schiffer, 1985: 24). Similarly, secondary refuse may be deposited by remaining inhabitants or primary and secondary refuse may be left behind by squatters or others who make temporary use of an abandoned structure (Schiffer, 1985: 24).

On the other hand, a number of processes can deplete refuse deposited in a behavioral context. In sites where abandonment was caused by warfare, remains may be looted by the victors. And other abandoned remains may be reclaimed as de facto or secondary refuse through recycling and scavenging activities. It is important to determine under what circumstance the remains were deposited if behaviors are to be inferred from archaeological remains.
Cultural Processes Possibly Active in Site Context

It is similarly important to understand the cultural processes which affect archaeological remains after they exit the behavioral context. Processes of deposition, disturbance, and reclamation are very active in this, the site context. Depositional processes include many of the same processes active in the behavioral context after a settlement is abandoned. In this context, they can continue to be active for long periods of time. But perhaps more common are reclamation and disturbance processes.

Reclamation processes cause artifacts from the archaeological record (site context) to be reclaimed for use, once again, in a systemic or behavioral context (Schiffer, 1987:99). Occupational variability and re-occupation often lead to reclamation activity as newer occupants exploit the remains of earlier occupants for use. This is often carried out through reincorporation and salvage. Reincorporation is the re-use of de facto refuse from a settlement once it is re-occupied. Salvage refers to the process of reclaiming artifacts, including structures, for re-use, frequently for building materials. Scavenging occurs and refers generally to exploitation and recycling by a settlement’s inhabitants from accumulations of previously deposited artifacts (Schiffer, 1987:106). A specialized form of scavenging includes gleaning or the reclamation of discarded items. More recent forms of reclamation include pothunting in the forms of looting and/or collecting. These processes can severely deplete archaeological remains.

Disturbance processes in site context also severely deplete and alter archaeological remains. The primary difference between disturbance processes and reclamation processes is that the artifacts affected by disturbance processes do not re-
enter a behavioral system as usable items (Schiffer, 1987: 121). The disturbances usually are results of an activity that has another purpose, artifacts and deposits just happen to be modified or moved along the way (Schiffer, 1987: 121). They do however, alter the archaeological record through earth moving processes and surficial processes.

Earth moving processes refer to any activity that modifies the surface of the ground by moving or removing earth, thus disturbing previously deposited artifacts (Schiffer. 1987: 122). These processes often are associated with construction stages and include the digging of foundation trenches for walls, pits of various types, and cisterns. This type of disturbance often causes upward migration of artifacts and depletions through removal.

Surficial processes are associated with activities which modify the surface of the ground but do not remove earth. These are active very near ground surface and include plowing and trampling. Plowing of course is the turning of soil for agricultural production. Artifacts can be moved around quite dramatically in this process depending on intensity, frequency, and depth of plowing. Trampling is caused by human or animal movement that disturbs previously deposited artifacts (Neilson. 1991; Schiffer, 1987: 126-129). Their effects depend on the occurrence of cultural material on the ground, the intensity of trampling, and the nature of the surface sediments (Schiffer. 1987: 126). Plowing and trampling are viewed as disturbance processes because previously deposited artifacts are merely moved and not re-used for some purpose.
Cultural Processes Possible Active in the Archaeological Context

Processes active in the archaeological context are related to the excavation and analysis of artifactual remains. Methods of archaeological analysis must be sound and well conceived or they complicate our ability to make behavioral inferences of the past using archaeological data. Patterns having nothing to do with past behaviors can be introduced by the archaeological process through poor methods of excavation and recording of archaeological remains, through the incomplete recovery of materials or their limited exposure, through unsystematic collection and classification of artifacts, or through the misclassification of artifacts altogether. Such patterns may be inferred mistakenly to be indicative of past human behaviors and can therefore hamper our understanding of archaeological remains.

Archaeological investigation can lead to other processes that affect archaeological deposits. During the intervals between field excavation seasons, archaeological excavation areas are exposed to a number of processes, some of which are cultural. These may include scavenging, collecting, looting, and even some disturbance processes such as earth moving processes and trampling.

All of these cultural processes can introduce patterning into the archaeological record through the addition, removal, and/or disturbance of archaeological remains. Therefore these agents and processes must be understood well before behavioral inferences are made of archaeological materials. For these reasons each specific process is tested for its effects on the archaeological record at Tel Halif.
Steps 2 and 3

Steps 2 and 3 are combined. A test of each specific process will be undertaken followed by an evaluation of the impact of each process on the archaeological record at Tel Halif. Their affects are evaluated for the behavioral, site, and archaeological contexts. First, processes active in the behavioral context are tested.

Cultural Processes Possibly Active in the Behavioral Context

Cultural formation processes active in the behavioral context can be very influential in determining what remains are found where. Since floor deposits from an Iron II dwelling are studied here to learn about domestic activities, each process from the list of possible cultural formation processes active in the behavioral context are analyzed. Each process is evaluated to determine its role in the introduction of refuse and patterning into the remains on floors and into the destruction debris associated with these floors in the Field IV pillared dwelling. The main goal is to separate items of the *de facto* assemblage from those introduced from other refuse.

Items lost on floors

Items lost on floors certainly could explain the presence of some small artifacts found on the floors of the dwelling. One would expect such items to become pressed into floors through trampling or otherwise removal from visual contact. For this reason, artifacts embedded well within floors are separated from the *de facto* refuse.
Items deposited as primary refuse

Primary refuse deposited on floors during the main period of the dwelling’s use are separated. Sherds resting on floors and sealed by falling ceiling debris are considered to be either primary refuse or secondary refuse introduced from decaying ceiling debris. Great pains were taken to separate this material from the *de facto* refuse through exhaustive refitting efforts. While it is felt that most of the *de facto* refuse was successfully separated from the other material, there is less certainty regarding the separation of primary refuse lying on floors and refuse introduced from collapsing ceilings and other structural elements. Efforts were made to locate intact fragments of ceiling to investigate materials incorporated into their matrix. These did not meet with great success as only two fragments were found. These were discovered leaning against one another and resting on the floor of the central long room at its western termination (see Area H in Fig. 5). One of these was partially dismantled and only one sherd was observed. The sample was small (ca. .20 x .25 x .15 m) so no firm conclusions should be drawn regarding the introduction of refuse onto floors from falling ceiling debris.

Mudbrick, however, was a different matter. A number of mudbricks were dismantled and forced through a 1/4 inch mesh screen. These were found to be literally filled with sherds—both freshly broken and heavily abraded. These are discussed in greater detail below in site context.

Abandonment processes

Regarding the *de facto* refuse and other artifactual remains, a number of processes
deposit refuse during the abandonment of a structure or dwelling. Because the dwelling analyzed here is filled with de facto refuse and thought to have been abandoned shortly before being burned, it is important to attempt an understanding of the abandonment processes. As stated earlier the Field IV dwelling of Stratum VIB apparently was burned and abandoned after a military siege associated with the Assyrians.

The Field IV pillared dwelling as well as the entire Stratum VIB settlement at Tel Halif was destroyed in a fiery conflagration and abandoned completely for a short period. It has been discussed previously that the destruction most likely was related to the 3rd campaign of the Assyrian King Sennacherib as he attempted to quell rebellion of his vassal kingdoms at the end of the 8th century B.C.E. His third campaign involved the destruction of 46 cities and wall towns throughout Judah (Ussishkin, 1982). It therefore seems likely that the Assyrians mobilized their military machine against the inhabitants of Tel Halif’s Stratum VIB settlement during this campaign, resulting in the settlement’s destruction and abandonment.

Three scenarios best account for Tel Halif’s abandonment and destruction, including 1) inhabitants fleeing before the powerful Assyrian war machine (see O’Connell, 1995); or 2) an unsuccessful defense of the settlement before its fortifications were breached and the settlement was taken, cursorily looted, and burned; or perhaps 3) a combination of the two including partial abandonment and defense by only a portion of the inhabitants. Any of these scenarios would account for the large volume of usable artifacts left in activity areas and structures throughout the destroyed settlement.

In the face of the Assyrian onslaught, the inhabitants of the settlement at Tel Halif,
or at least some of them, must have opted for either the second or third option as the settlement appears to have been taken under a heavy barrage of slingstones and arrows. These have been found commonly throughout the Stratum VIB remains at Tel Halif, particularly in deposits representing roof collapse. Additionally the archaeological record shows that the settlement was abandoned with numerous still usable small and large artifacts left on the floors of the dwellings burned in their entirety and buried under their own collapsed debris.

The patterns introduced by the activity of burning and destruction of the Tel Halif settlement are marked throughout. While the genesis of the fire is unknown, there certainly was present plenty of combustible material that was utilized by the settlement’s occupants throughout the settlement that would have fed a blaze once set. This is attested well by the totality and intensity of the destruction. Every field excavated on the tell yielded Stratum VIB destruction debris. The intensity of the fires is such that limestone building materials throughout the site were slaked to powder. Once the combustible remains were consumed structures began to collapse. The structures often collapsed in patterned ways including the burned roof debris collapsing directly onto the room floors of buildings. The roof’s rapid collapse and decay is accounted for by the burning. Some burned roof beams were present on the floors (F7, H7) of the pillared dwelling but roof materials comprised a small amount of the fill material. The roof collapse generally is followed by partial collapse of walls before the slower but devastating natural processes begin to wrought their effects on the abandoned structures. The effects of these processes cover much of the de facto refuse left in the structures at the time of their destruction.
Several normal and abnormal patterns are introduced into the *de facto* refuse by human behaviors during the events leading up to the destruction of the settlement and evidence of these may be preserved under and in the destruction debris. The *de facto* refuse on the floors of the dwelling could represent the remains of items left in the location where they were used regularly in everyday activities by the occupants of the dwelling. However, under siege conditions one could hardly expect everyday activities to continue unabated in a fortified settlement such as Tel Halif. Many normal activities would have been truncated and replaced by activities associated with siege preparations. Thus, it is possible that patterns introduced into, and observed in, the *de facto* refuse of the pillared dwelling do not reflect activities indicative of everyday life but rather the special and rare preparations and activities launched due to the peril of siege and destruction hanging over the settlement.

Assuming the inhabitants of the Tel Halif settlement knew of the coming siege prior to attack, they undoubtedly would have prepared for this event, especially by stockpiling a surplus of various goods.⁵¹ Patterns observable in the archaeological record may reflect this behavior instead of everyday activities. Indeed a large quantity of store jars were found in the pillared dwelling (see Fig. 8). Explanations of their quantity and presence are reviewed more thoroughly under the following discussion of activities taking place in the dwelling.

Some of the procedures used here are aimed at addressing the everyday vs. *de facto* refuse by human behaviors during the events leading up to the destruction of the settlement and evidence of these may be preserved under and in the destruction debris. The *de facto* refuse on the floors of the dwelling could represent the remains of items left in the location where they were used regularly in everyday activities by the occupants of the dwelling. However, under siege conditions one could hardly expect everyday activities to continue unabated in a fortified settlement such as Tel Halif. Many normal activities would have been truncated and replaced by activities associated with siege preparations. Thus, it is possible that patterns introduced into, and observed in, the *de facto* refuse of the pillared dwelling do not reflect activities indicative of everyday life but rather the special and rare preparations and activities launched due to the peril of siege and destruction hanging over the settlement.

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⁵¹ For a discussion of royally instituted siege preparations by Judah during the Iron II, see Vaughn (1999).
"truncation-in-everyday-patterning" nature of the deposition of the de facto refuse in the pillared dwelling. Attempts are made to associate the observed patterns and artifact frequencies in the de facto artifacts with more permanent features like ovens, bins, and other installations that may be more useful for establishing the common use of space. These data are compared with microartifacts which build up in the spaces where they were produced slowly over time. The archaeological remains from the dwelling are compared with remains used in domestic activities known from other Iron II archaeological sites and with ethnoarchaeological data on domestic assemblages and activities in general. More on this is discussed below.

Additional processes active in the behavioral context during site abandonment remove items from de facto refuse. It is possible the settlement was looted before it was put to fire. If this were the case, one would expect classes of "valuable" artifacts to be missing, such as metals (bronze, iron), precious metals (gold, silver), precious stones and other types of personal adornment. Also, if the looting is prolonged one would expect larger de facto items to be removed. Evidence of looting by Assyrian armies is apparent from contemporaneous iconographic sources excavated in Mesopotamia (Layard, 1848). Excavations of Sennacharib’s palace at Nineveh reveal wall reliefs showing the siege and subsequent looting of Lachish, a city ca. 12 miles north northwest of Tel Halif (see Ussishkin, 1982) (see Fig. 1). However, there is no observable evidence of wide-scale looting from the excavated remains of Field IV. Throughout the field, items of personal adornment, bronze and iron tools (knives, sickles, plows, needles), figurines, "cultic" paraphernalia, and numerous ceramic vessels (wine, oil, and other goods) were found in
considerable quantities. Yet there is no way to rule out looting before burning, especially if it was quick and haphazard. In addition to looting, other processes, such as recycling may have removed artifacts from the dwelling, but these would occur after the site was burned and abandoned.

Following the destruction, Halif was abandoned for a short time with the exception of a few squatters – perhaps previous residents surviving the Assyrian onslaught to return shortly after the settlement was destroyed. Aside from clearing out and re-occupying a few of the damaged structures (Stratum VI A), these squatters left much of the site unmolested and natural phenomena began the process of redeposition of sediments through sheet wash, erosion, and ponding (more on this under natural formation processes). It is possible that the squatters of Stratum VIA scavenged in the destroyed settlement upon their return, thus depleting the *de facto* refuse.

While this scavenging activity seems likely, no disturbances could be attributed directly to this process. Squatters could introduce materials into the burned and abandoned ruins of the dwelling, but again no direct evidence such as middens, or ritual deposits were found in the burned and destroyed Field IV dwelling.

Secondary refuse could be thrown into abandoned dwellings by the remaining inhabitants in efforts to clean destruction debris out of re-used dwellings. However, this should be apparent due to the occurrence of numerous sherds that could be refitted with others. One would expect such refuse to be above the collapsed or burned roofs of...

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24 This could account for the missing green stone mortars, fragments of which were often found in the microartifacts.
structures and scattered over broader areas. One possible example of this is evidenced in Area E of Room 3 where a store jar does not come into contact with the floor and has a low refitting index although numerous sherds of the vessel were recovered. Other than this isolated example there is little wide-scale evidence of disturbances in the *de facto* refuse introduced by squatters in the behavioral context. Activities such as these are more common in site context since the dwelling is abandoned by its occupants. These activities have been discussed here in the behavioral context due to the possibility that some of the squatters returning to the site may have been the previous Stratum VIB occupants.

Cultural Processes Active in the Site Context

Depositional processes

Some of the processes that deposit remains in the pillared dwelling in site context include those introduced by later occupants and the collapse of structures (the latter usually is caused by natural processes). As described above, refuse of several kinds may be left behind by squatters or others who make temporary use of the structure. Also, secondary refuse can be thrown into structures by the remaining inhabitants of the settlement (Schiffer, 1985: 24). The same inhabitants can introduce trampling as well. These processes can add items to the *de facto* refuse recovered from the pillared dwelling at Tel Halif. While abundant evidence of patterning introduced through these processes is known in other areas of the tell (e.g. Field III), little evidence of their presence could be observed in the remains of the Field IV pillared dwelling.
Reclamation processes

The nature or type of occupation of a site determines how badly its archaeological remains are disturbed in site context. Many tell sites, including Tel Halif, are recurrent extended or supra-extended habitation sites. Since a number of occupations occurred at the site subsequent to the Iron II Stratum VIB occupation, one would expect later occupations to disturb the Iron II material remains which they succeed. Re-occupation after the Stratum VIB destruction occurred rapidly as squatters returned to the settlement shortly after it destruction. Evidence for this in Field III includes the re-occupation of Stratum VIB structures after destruction debris was removed or leveled and covered, possibly by people returning from their flight shortly before the destruction of the settlement. Many of the rooms (Stratum VIA) were re-used for the same functions for which they had been used prior to the Stratum VIB destruction. Typologically, the ceramic corpus is virtually identical to the *de facto* assemblage buried in the destruction debris. However, there is no evidence of re-occupation of the Field IV pillared dwelling employed in the present study.\(^{24}\) There is ample evidence of the effects of other reclamation processes on the remains of the pillared dwelling.

\(^{24}\) This is not true of the structures in the southern half of Field IV. Evidence was uncovered in the 1999 field season of the Lahav Research Project which closely resembles that of Field III.
Reincorporation and salvage processes

While the Stratum VIB structures were not re-occupied, later occupants of the site did affect the archaeological materials of stratum VIB. Reincorporation and salvage activities undertaken by these folks are especially noteworthy. The effects of salvaging processes are readily apparent in the Field IV pillared dwelling. The salvaging activities apparently were aimed at the recovery of field stones from the foundations of Stratum VIB walls for re-use in more recent structures. Similar activities taking place on tells was observed earlier this century. During his excavations at Bethel. Albright noticed the local villagers engaging in this activity in search of stones for building boundary walls (Albright. 1968: 37). At Tel Halif, some very interesting patterns were created by the activities. In areas of Field IV virtually entire architectural structures were robbed of all wall building materials. However the floor assemblages between walls were hardly affected, leaving house plans in the negative. The resulting robber trenches often were difficult to trace during excavation. The loosely compacted destruction debris of mudbrick (both whole and detritus) and loose, heterogeneous ashy destruction debris that was removed by these robbers, was simply tossed back into the robber trenches once the stone building materials were removed from them. The disturbed material matched perfectly its surrounding matrix. There are, however, two clues to the presence of these trenching and salvage activities. The first is the very infrequent, but nonetheless occurrence of sherds from later periods (especially corrugated Roman-Byzantine sherds). In one instance a restorable Roman cooking pot thrown into one of these trenches was found at floor level of an Iron II dwelling. The second clue is much more apparent in the
presence of “ghost walls.” Once the walls were removed, breaks in living floors appeared leaving perfect plans of walls in the negative. By outlining these breaks in surfaces it is possible to retrieve the plans of buildings where walls were removed in antiquity. While mining activities and other salvage processes affect building structures considerably, their effects on the de facto refuse are not as severe as the processes associated with re-occupation. Almost without exception the de facto artifact assemblage was left mostly unmolested, in spite of the heavy disturbances to the architecture.

This evidence of scavenging can be seen in the Field IV pillared dwelling in the southern portions of the building. The two long walls of the southern-most long room (L. H7011 and L. H7015) are both robbed out almost totally (see Fig. 3). The entire excavated length of the southern wall (outer wall L. H7015) has been removed except for a re-used pillar protruding into the wall line from an earlier stratum (L. H7014). Besides this pillar, the only identifiable remains of the wall is the robber trench left by the scavengers (see. Fig. 3). The opposite and parallel wall of Room 3 also was robbed out for most of its length (L. H7012). Its southern most extension which meets the wall of the broadroom was not robbed out (L. G7023). The reason for this is believed to be a doorway which interrupted the wall near its western termination (see Fig. 3). Due to the break of the doorway, the wall scavengers probably thought they had reached the wall’s western termination and moved on. During the mining of this wall it is possible that flagstones were removed from the floor of the central room (L. G7016) (See Fig. 3). It also is possible that de facto refuse that was left near this wall was disturbed during these scavenging activities. No mining of building materials was observed in other areas of the
pillared dwelling nor were the affects of other reclamation processes observed.

Disturbance processes

heavy processes

The disturbance processes active on the remains of the Field IV pillared dwelling include earth moving and surficial processes. Earth moving processes were especially apparent in the form of pits and cisterns excavated into and through the destruction refuse and floors of the VIB stratum by later occupants of the site. These disturbances were confined to the central and northern long rooms (Room 4 and 5) of the pillared dwelling. Two small, stone-lined pits or bins (L. G7006 and L. G7007) dating to the Persian Period (mid 6th - 5th centuries B.C.E.) were dug through the *de facto* refuse in two of the long rooms of the pillared dwelling (see Fig. 3). Additionally, a larger stone-lined cistern (L. G6014) dating to the Roman Byzantine period was similarly excavated through earlier archaeological remains. The construction of the cistern disturbed the pillared dwelling at the eastern most extent of its middle long room (see Fig. 3). The construction processes associated with these features removed *de facto* refuse from floors and their covering destruction debris causing depletions in those areas.

Surficial processes

While the affects of surficial processes could not be identified and isolated directly, they are known to have affected deposits near the pillared dwelling. The surface of the tell was plowed in its later history. But this affected the Iron II deposits minimally
since they are protected by walls and generally lie below the shallow plow zone. The only place this does not seem to be the case is near the slope of the tell. In these areas, the plows probably reached the Stratum VIB deposits and caused the disturbance and upward movement of artifacts. However, plowing does not appear to be a major contributor to refuse patterning in the Stratum VIB remains. Trampling by people and herded animals undoubtedly cause disturbances, but again these are minimal.

Many different cultural processes in site context affected remains in the pillared dwelling of Iron II Halif. Primary among these were the scavenging of building material from the stone foundations of Stratum VIB walls and earth moving processes associated with the construction of pits and a cistern. However, other than these specific areas, the affects of disturbances taking place in site context have minimally affected the de facto refuse of the Iron II pillared dwelling.

Cultural Processes Possibly Active in the Archaeological Context

The archaeological investigation of past remains can introduce patterning and variability into the archaeological record which hinder our ability to make strong behavioral inferences from analysis of material culture. In the current project, attempts were made to minimize these affects through meticulous excavation, processing, and analysis of archaeological data. One area where patterning was introduced by the methods of excavation employed is near the perimeter of the excavation areas. The eastern most areas of Rooms 3 and 5 remain unexcavated and 1 meter wide balks run through the eastern end of Room 4 and western end of Room 3 (Fig. 3). Material
undoubtedly remains in these deposits which belongs in the pillared dwelling along with the excavated material analyzed in this study. Thus, proximity to these areas is considered when calculating refitting indices and what these mean for understanding the archaeological remains.

Archaeological investigation can introduce other processes which affect archaeological remains. Exposed excavation areas lay dormant through much of the year. During this time a number of processes, both cultural and natural can become active on the exposed remains. At Tel Halif, members of the neighboring kibbutz carried away items such as large stone mortars and other remains for use in their gardens and yards. While some of these activities have gone on for years prior to excavation as reincorporation processes in site context, others have been introduced directly by excavation efforts of the Lahav Research Project. Between the summers of 1992 and 1993 a number of artifacts and other de facto refuse were removed from balks where large pottery sherds could be seen protruding in great quantities. For the most part, the damage appeared minimal and did not affect the area falling into the pillared dwelling studied here. Thus, looting activity is not responsible for patterning observed in the de facto remains of the Field IV pillared dwelling.

Step 4

The final step in the analysis of the effects of cultural formation processes is to evaluate the overall impact of cultural disturbances in behavioral, site, and archaeological contexts (adapted from Montgomery, 1994: 174). Above, attempts were made to address
all cultural processes introducing patterns and variation in behavioral, site, and archaeological contexts. It was found that these processes significantly impacted the archaeological record of the Field IV pillared dwelling in isolated areas. The major culprits included scavenging or trenching, disturbance processes, and plowing.

Trenching or mining activities, under the broader category of scavenging, apparently were aimed at the recovery of field stones from the base of Iron Age II walls for re-use by later occupants. In addition to mining, disturbance processes associated with the construction of bins and pits, particularly of the stone-lined variety, were observed. The construction of these installations during the Persian and Byzantine periods disturbed the de facto refuse on and above the Iron II floors. Evidence of less destructive cultural activities including plowing and trenching were apparent, but these only affected areas with shallow overburdens – especially near the western perimeter of the pillared dwelling. Figure 6 shows areas where major cultural disturbances occurred in the Field IV pillared dwelling.

While cultural formation processes disturbed de facto refuse in isolated areas, they can be ruled out as being responsible for most of the patterns observed in the refuse preserved in the pillared dwelling. By mapping these processes, areas where disturbances and depletions occurred can better be understood, and the use of space in the pillared dwelling by its Iron II inhabitants also can better be reconstructed.
Testing for Natural Formation Processes

Step 1

For analyzing the affects of natural formation processes active in Field IV the first step was to compile a list of possible processes and agents active in behavioral, site, and archaeological contexts. This list of processes and agents is compiled from discussions by Carr (1987), Montgomery (1994), Schiffer (1987), and Wood and Johnson (1978) and includes the following:

List of natural agents/formation processes active in behavioral context
- water erosion
- wind erosion

List of natural agents/formation processes active in site context
Agents of wind and water
- wind erosion
- water erosion (fluviation)
- slope wash
  - down wearing
  - parallel retreat
Pedoturbation
- faunalturbation.
- floralturbation
  - root action
  - tree falls
- cryoturbation
  - frost heave and thrust
  - involutions
  - patterned ground
- graviturbation
  - gelifluction
  - soil creep
- argilliturbation
  - soil gas disturbance
  - wind winnowing
- aeroturbation.
List of natural agents/formation processes active in archaeological context
Wind erosion
Rain erosion
Faunalturbation
Floralturbation

The first agents listed above are those associated with wind and water. These agents are most active through erosion or the down wearing, removal, and redeposition of materials. Their affects are commonplace in most archaeological sites. On tells, these agents are most commonly active near slopes where wash occurs. Slope wash generally occurs through two processes—slope decline and/or parallel retreat (Rosen, 1986: 25). Slope decline, or down wearing, occurs when slope irregularities are smoothed by wearing, creating a graded slope. Next, vertical decline begins, ultimately resulting in a low gentle hill (Rosen, 1986: 25-27; cf. Young and Young, 1974: 23; Schumm, 1966: 101). Parallel retreat, or back wearing, occurs when the upper portions of the slope retreat but maintain a constant angle and length. The base increases in length and becomes more gentle (Rosen, 1985: 27). Parallel retreat is a result of rain wash erosion (Schumm, 1966).

A number of natural processes active on archaeological remains fall into the broader category of pedoturbation. Pedoturbation is defined as the mixing of soils and sediments (Wood and Johnson, 1978: 317). A number of processes or turbations fall into this category including faunalturbation, floralturbation, cryoturbation, graviturbation, argilliturbation, and aeroturbation.

Faunalturbation is the mixing of soils by the burrowing actions of mammals, insects, and earthworms (Stein, 1980; Wood and Johnson, 1978: 328). Wood and
Johnson offer four categories of animals involved in faunalturbation: burrowing mammals, crayfish, insects, and earthworms (Wood and Johnson, 1978). Since trampling of archaeological deposits by wild animals, especially larger herbivores can cause mixing, it shall be included here.

Floralturbation is the mechanical mixing of soil by plants, as occurs during root growth and decay and during tree fall. Tree falls can pull up older soils and archaeological refuse, thus introducing older deposits onto newer ones. The reverse can also be true as new deposits are introduced through other cultural and natural processes into the hole or depression left by uplifted tree roots (Strauss, 1978; Wood and Johnson, 1978: 328). Root action associated with growth and subsequent decay also can cause mixing of soils and artifacts.

Cryoturbation is a disturbance process caused by freeze-thaw action. (Wood and Johnson, 1978: 334). This includes frost heave and thrust and also involutions – or the contortion, deformation, and displacement of soil and sediments (Schiffer, 1987: 214; Wood and Johnson, 1978: 341). Patterned ground also can occur when frost heaved stones assume regular geometric patterns (Schiffer, 1987: 214-215; Wood and Johnson, 1978: 344).

Graviturbation includes a large set of processes that leads to down slope movement and mixing of sediments, principally under the influence of gravity without the aid of a flowing medium of transport such as air and water (Schiffer, 1987: 216; Wood and Johnson, 1978: 346). Fast processes can include earthflows, mudflows, landslides, and rockfalls among others and slow processes include solifluction, gelifluction and soil
creep. Solifluction is described as the slow downslope flowing of water saturated soil and regoliths (Wood and Johnson, 1978:346). Gelifluction refers to soil movement in permafrost regions (Schiffer, 1987: 216) and soil creep is a process that leads to downslope movements not caused by frost action or other known actions (e.g. biotic activity, wetting and drying of soils, sheetwash, and rills) (Schiffer, 1987: 216; Wood and Johnson, 1979: 216).

Agrilliturbation refers to soil mixing caused by the swelling and shrinking of clays (Schiffer, 1987: 216-217) and aeroturbation refers to two types of disturbances created by the action of air. These processes create soil gas disturbances to soils and wind winnowing of soils leading to grain size separations.

**Step 2**

Step 2 involves a study of the environment at Tel Halif and how it changes through time. A study of the environmental characteristics of Tel Halif, including geological, climatic, and biological characteristics, and how these change through time, was discussed previously in this chapter under the history and formation of the site. It is drawn upon below to determine which of the natural formation processes most likely affected deposits at Tel Halif and how.

**Step 3**

Step 3 involves determining which natural formation processes potentially had the greatest affect on the remains of the pillared dwelling. After reviewing the list of
formation processes from Step 1 above, and placing them in the context of the discussion of geological, climatic, and biological characteristics of Tell Halif from Step 2, the following processes were chosen to have the highest probability of having had some effect on the archaeological deposits of the pillared dwelling used in this study.

Agents of wind and water undoubtedly affected the remains of Field IV. Because the remains of the pillared dwelling are located at the edge of the steep western slope of the tell, the potential is great for the effects of the erosional agents of water and wind. Wind direction in the northern Negev is generally from the west, thus Field IV receives the brunt of its forces as well as those of wind driven rain. Therefore, the effects of these forces on the remains of the pillared dwelling, especially slope wash and other erosion agents should be tested in all contexts. The affects of pedoturbation also should be tested, especially those associated with faunalturbation and floralturbation as both animal and plants have been active on the tell for millennia and may have caused mixing and patterning, especially in the site context.

Graviturbation also should be considered. Although most fast processes can be ruled out, slow processes, other than gelifluction, must be active, particularly near tell slopes. Soil creep certainly could be a factor, especially as caused by the wetting and drying of soils. Throughout the summer months, characteristically heavy dews and condensation persist during the nighttime before giving way to the extreme dryness of the day. This process could cause the movement of archaeological remains.

Cryoturbation on the other hand should not be a significant factor since Tel Halif sits at the edge of the Negev desert where temperatures nearing freezing are not common.
Also it is not believed that aeroturbation or argilliturbation in the form of soil gas disturbance or wind winnowing noticeably affected the remains. The effects of these agents are not tested.

The natural formation processes that are tested in Step 4 include wind and rain erosion and slope wash, faunalturbation, floralturbation, and graviturbation.

Step 4

In Step 4 each process listed in Step 3 is tested for in behavioral, site, and archaeological contexts. Next, their effects on the Field IV pillared dwelling are evaluated. Natural formation processes usually are not as active as cultural formation processes in causing patterns in the behavioral context. Some that are include water and wind erosion, especially in areas not roofed (courtyards). If their affects could be seen on floors of rooms in the Field IV dwelling, such information could be helpful in determining which rooms were roofed and which were not. While not active in the behavioral context, natural formation processes are very active in site context and include numerous processes and agents potentially affecting archaeological deposits.

The impact in site context of wind and rain erosion, slope wash, faunalturbation, floralturbation, and graviturbation in the archeological record at Tel Halif is evaluated to determine the extent of their impact on the remains of the pillared dwelling used in this study. The focus is determining how these natural formation processes contributed to the formation of these deposits and how they may have impacted the de facto refuse preserved in the pillared dwelling. It has been established that the pillared dwelling was
abandoned after being burned in association with a siege. It also has been established that squatters re-occupied the site, although not the pillared dwelling of focus here, shortly after its destruction. Cultural processes which potentially affected the dwelling in the course of the abandonment were discussed. But many natural processes also are active on abandoned structures.

Once the pillared dwelling was abandoned, the processes of collapse and deformation began. Usually the burned roof debris first collapsed directly onto the room floors. Its rapid collapse and decay is accounted for by the burning. Deposits yielding burned roof beams lying on floors are not uncommon, particularly in Room 5 near the northern wall (L. F7003) and Room 3 in Area E (Figs. 3 and 5). The roof collapse generally is followed by partial collapse of walls. During these processes secondary refuse embedded in the decaying building materials of the structure can bring secondary refuse into floor contact. These may include chinking materials from walls, sherds embedded in mudbricks, sherds and other artifacts deposited as part of roof construction or maintenance, or as primary, secondary, or de facto refuse on the roof. Other natural formation processes can move materials in an upward direction to bring them into contact with living floors. Subfloor materials move upwards by disturbance processes such as animal burrowing (Schiffer, 1987: 300). The effects of these processes on abandoned structures are continual.

Short term abandonments lead to re-deposition of sediments through sheet wash, erosion, and ponding, and the accumulation of natural wind blown silt and sand (Rosen, 1986: 13). Long term abandonments lead to soil development, the natural erosion of
strata, or the re-deposition of wind-blown deposits (Bullard, 1970: 115-116; Rosen, 1986: 13). These processes effectively seal the remains in abandoned structures preserving them in the archaeological record until other processes re-expose them. Preserved often is the *de facto* refuse, primary refuse, and secondary refuse introduced through the processes described above. If these types of refuse can be separated, the depositional history of the dwelling can be understood better.

When excavating the archaeological remains preserved in Field IV great effort was expended to separate the sealed destruction remains of the Stratum VIB dwelling from its heavily disturbed overburden. While the material overlying the destruction debris contained pottery belonging to the *de facto* assemblage, it also showed obvious signs of mixing through various and numerous processes – too many, in fact, to convincingly account for. Many *de facto* artifacts in this material had been removed from their primary context. Similarly, a number of ceramics were included in the sealed destruction debris that were not part of the *de facto* refuse. Determining which processes were responsible for introduction of these materials into the *de facto* refuse is perhaps more attainable.

When all ceramics excavated from the pillared dwelling's sealed destruction debris were processed, their count totaled 15,488 sherds weighing 338.465 grams. Of this number 4,495 sherds, weighing 220,343 grams belonged to restorable vessels. This leaves 10,993 sherds weighing 118,122 grams that are not accounted for by the *de facto* assemblage. Sherds lying directly on floors numbered 835 and weighed 8,625 grams. As this number demonstrates few of the sherds, in fact only 7.59% (7.30% by weight) of
the sherds, not included in the *de facto* assemblage rested on floors. This leads one to believe that most of the sherds (92.41% by count, 92.7% by weight) sealed in the destruction debris and not associated with the *de facto* assemblage and are not in use contexts. While it is possible, and even probable, that all sherds lying on floors are not in their use context, it is certain the majority of the sherds in the sealed destruction debris cannot be directly associated with the floors. As discussed above with the study of cultural processes, most of these sherds likely were introduced by structural collapse, especially associated with the melt of mudbrick. The processes which introduce most of these remains can be associated with wind and water agents and graviturbation as they wrought their affects on collapsing structures. The processes discussed until now introduce new material into the archaeological record, especially onto floors and therefore inflate estimates of primary refuse.

A number of processes are active on archaeological remains in site context which more commonly remove materials from floors and primary contexts. These processes include wind and rain agents, slope wash, and a number of pedoturbations. The most active of these agents at Tel Halif are wind and rain agents, especially near the slope of the tell.

Due to the close proximity of western portions of the pillared dwelling to the western slope of the tell, several natural agents including especially wind and rain erosion affect these remains quite dramatically. These items usually are first exposed by flowing and deflation media such as water and wind erosion as these forces carry deposits from the top of the tell and deposit them at the base of its slope. The direction faced by the
Field IV deposits dramatically affects the role played by these two agents.

The Field IV deposits are perched just above the slope of the tell which faces west (Fig. 2). Since wind direction commonly is from the west, this slope usually is subjected to the harshest and most direct natural forces. This especially is true during the winter when the direct effects of the windblown rains are brought to bear on western hillsides. The rains can cause water erosion along the slope promoting soil creep from the upper portions of the tell toward the base. Thus the slope often declines in height and lengthens. But these rains also can promote slope stability. The increased rain received on the west side of the tell also means a denser growth of vegetation on this slope, thus making it more resistant to water and wind erosion (Rosen, 1986: 29). However, greater growth of plants increases the desirability of these slopes for grazing by wild and domesticated herbivores, leading to the introduction of faunal turbation through trampling. Trampled soils are more prone to being eroded through wind, rain, and even graviturbation. Factors other than climate and aspect also determine the steepness of tell slopes. Most notably are structure and stage of evolution (Rosen, 1986: 25).

A structural determinant of slope steepness at Tell Halif is the Iron II glacis present along the western slope of the tell located just below the pillared dwelling in Field IV. Its stone-faced outer surface creates a slide plain by holding water between its surface and the covering debris. For this reason little accumulation has built up on its surface and it can still be traced quite easily along the western slope of the tell just beneath the present ground surface. While ramparts often protect tell slopes from the effects of wind and rain, they do not protect remains deposited on the summit of the tell which extend above
the preserved ramparts. The remains often are eroded down the slope, accumulating at a
tell’s base (Rosen, 1986: 29). The eroded deposits often determine the shape of the slope.
The western slope, the one with the direct exposure to erosional agents, evolves according
to the patterns of slope decline and/or parallel retreat (Rosen, 1986: 31). The west slope
at Tel Halif exhibits these patterns.

Slope wash below the Field IV pillared dwelling is indicative of parallel retreat.
The retreat of the summit and slope decline has exposed the western most areas of the
pillared dwelling to the processes of wind and rain erosion and graviturbation. In Room
2, Area 3, the walls (L. G8002), and floor (L. G8005) of the southwestern corner of the
dwelling have eroded down the western slope (see Fig. 3). Consequently slopewash has
carried off the refuse previously held in place by these structural features. These
disturbances to the pillared dwelling have been mapped (see Fig. 6).

Floralturbation is active on deposits in Field IV. However, because most of the
Iron II deposits are buried over .5 m below the modern ground surface at Tel Halif,
floralturbation has affected deposit only minimally. This is not the case in areas just
described near the tell’s western slope. Among plant species on the list presented in the
environmental review are species which could impact remains in the Iron II dwelling.
The most notable include salt bush and the Jerusalem Pine. Salt bush is a problem only
after archaeological excavation has taken place. Their seeds, artificially introduced by
humans and spread by cattle and sheep/goats, find purchase in the rocky soils associated
with architectural features. Their growth is rapid and their spread prolific. Root action
associated with these plants undoubtedly contributes to the upward and downward
movement of artifacts within the site but only in localized areas. No trees grow in the areas falling into the Field IV dwelling but tree roots certainly extended into its refuse. The trees, bushes, and grasses growing on the slope immediately adjacent to Field IV, however, hinder the movement of remains by decreasing the effects of graviturbation and wind and water erosion in the western areas of the pillared dwelling. The effects of floralturbation caused some movement of archaeological materials. But their effects have been minor and are not directly observable as introducing significant patterns in artifactual deposition and movement.

Faunalturbation also is active on deposits in Field IV. Burrowing by small mammals, birds, insects, and arachnids as well as the trampling of larger animals help move artifacts through archaeological remains. Rarely, krotovina were observed and recorded, as were more recent, still occupied rodent and bird burrows. No direct effects of large mammals were observable in the archaeological deposits of the Field IV pillared dwelling. However, dogs and jackals present in the area for millennia are certainly capable of causing ceramics and other artifacts to move about after the site's destruction and abandonment, especially through scavenging.

The greatest affects of large mammals is an indirect result of the feeding habits of domesticated as well as wild herbivores. By stripping the site of floral remains through grazing these animals allow other natural processes such as erosion agents to move remains around in the archaeological record. Also their excrement introduces seeds, especially salt bush by cattle, which introduce root action and other floralturbation processes. Species responsible for faunalturbation at Halif include the following: large
wild mammals include gazelle (*Gazela dorcas*), striped hyenas (*Hyaena striata*), wolves (*Canis lupus*), foxes (*Vulpes palaestinus* and *V. familicus*), lynxes, jackals (*Canis aureus*), honey badger, ibex (*Capra nubiana*). Extinct species include lions (*Felis leo*) and Barbary wild sheep (*Ammotragus lervia*). These species have been absent from Syria-Palestine since the Crusader period and the 19th century respectively. Domesticated mammals include the Arab cow, Palestine sheep (*Ovis laticaudata*), steppe sheep (*Ovis vignei*), mamber goat (*Capra mambirica*), Arab mountain goat (*Capra hireus mambrica*), horse (*Equus caballus orientalis*), donkey (*Equus asinus*), and Pariah dogs (*Canis putiatini*). Burrowing mammals and rodents include primarily hedgehogs (*Erinaceus auritus*), paunched rat (*Spermophilus xanthopyrminus*), lesser dormouse (*Eliomys melanurus*), and house rat (*Rattus rattus*).

**Step 5**

Step 5 calls for evaluation of the overall role of natural formation processes in the disturbance of materials in behavioral, site, and archaeological contexts (adapted from Montgomery, 1994: 152). After analysis for each of the natural formation processes, it was determined that the major culprits included erosion (slope decline or down wearing due to wind and rain), deflation, graviturbation, animal burrowing, and root action. Many of these processes were very active in site formation once the pillared dwelling in Field IV was abandoned. A number of processes including especially wind and rain erosion and graviturbation introduced numerous artifacts from secondary contexts into the *de facto* refuse preserved in the destruction Stratum VIB. Other natural processes
associated with sheet wash, erosion, and ponding, the accumulation of natural wind
blown silt and sand, and soil development helped to seal the *de facto* remains in the
archaeological record. Some of these same natural processes, in addition to others,
helped to re-expose a corner of the pillared dwelling immediately adjacent to the tell's
western slope. In this area the southwest corner of Room 2, Area C was badly eroded
(See Fig. 5). Walls, floors, and floor material washed down the slope of the tell with the
aid of wind and rain agents (slope wash), graviturbation, and faunalturbation. However,
it is possible to demonstrate from the above study that natural processes affected only
isolated areas of the pillared dwelling and therefore account for little of the patterning
observed in the dwelling's *de facto* refuse. By mapping the areas where disturbances and
depletions occurred, a better understanding of the use of space in the pillared dwelling by
its Iron II inhabitants can be reconstructed.

**Summary to the Discussion of Formation Processes**

Cultural and natural processes have accounted for some depletions and patterning
observed in the *de facto* refuse in the Iron II pillared dwelling at Tel Halif (see Fig. 6).
Most noticeably, cultural formation processes affected remains in two areas. The two
long walls in Room 3 were removed through scavenging, and intrusive pits and bins
constructed by later occupants removed *de facto* refuse from isolated areas in Rooms 4
and 5. Additionally, natural formation processes were active in moving downslope the
floor and wall material from the southwestern corner of Room 2. However, outside of
these areas, it is unlikely that ceramics and other material remains which make up the *de*
The knowledge that cultural and natural formation processes can be eliminated in most instances as a major contributor to site formation is important if behavioral inferences are to be made from archaeological remains. This knowledge leads to better and more accurate ideas about the kinds of inferences that are possible with the archaeological data from Tel Halif. Where the affects of formation processes are eliminated as sources of patterning, attempts are made to associate observed patterning with activities and behaviors carried out in activity areas by the occupants of the Iron II pillared dwelling. Identifying this patterning is made possible by the careful recovery of all archaeological remain, their three-dimensional mapping, and the explicit study of formation processes. Through these processes, the pillared dwelling from Field IV as revealed archaeologically, can be discussed in the great detail.

The De facto Assemblage

The pillared dwelling from Field IV is discussed in great detail. A description of each room and its accompanying features, artifacts, and debris is discussed. The broad rooms are examined first by moving from north to south, or from Room 1 to Room 2 (see Fig. 4). Next consideration is given the long rooms. These rooms are examined moving south to north, or from Room 3 to Room 4 to Room 5 (see Fig. 4). In the examination of
each room, attributes are described including size measurements, floor and wall preparation, and flow patterns/access. Further, the rooms are subdivided into smaller spatial units or areas for a more detailed analysis. This analysis is based on architectural characteristics, permanent or non-movable features, floor preparations, and/or patterning observed in the *de facto* refuse and other artifactual remains. These areas, identified “A” - “M,” are described by size, features, and remains and their context.

Upon description of the thirteen areas and their contents, inferences are made concerning room and area function. Against the backdrop of the study of formation processes, and the recognition of patterning in varied materials in the various areas, behavioral inferences are made of the material remains. The goal is to identify activities and activity areas based on an understanding of the ways the *de facto* refuse was used and functioned in specific areas of the pillared dwelling preserved in Field IV. The behavioral inferences are based on an understanding of the way functional categories of ceramics interact with other material remains, including architectural characteristics, permanent or non-movable features, floor preparations, microartifacts, and/or patterning observed in other classes of artifacts and refuse. But first, a description of the various areas of the pillared dwelling begins with Room 1.

**Investigating The Pillared Dwelling**

**Room 1**

**Room Description**

Room 1 is the smaller of the two broad rooms. It essentially is square with inside
space measuring 2.25 x 2.40 m (N-S/E-W respectively) or 5.4 m square (see Fig. 4). Its floor (L. F8009) is well prepared with compacted small cobbles measuring .05 - .15 m, and the room was undoubtedly roofed. The lone feature in Room 1 is a raised installation located in the northeast corner of the room, likely the base of a dismantled or poorly preserved tabun or oven (L. F7026). A raised threshold is located in the doorway separating this room and Room 5 (see Fig. 4). This doorway is the only observable access to Room 1 and is partially obstructed by a semi-circular installation (L. F7008) located in Room 5. The placement of the installation leaves only .50 m of unobstructed passageway between the installation and Wall/Bench L. F7003 (see Fig. 3). The entire space of Room 1 is included in one area – Area A – due to its small size and the lack of discernable patterns in the artifacts and other refuse. Upon excavation, Room 1 (Area A) was found filled with burned debris to a depth above floor level of approximately .35 - .50 m, mostly consisting of gray, brown, and black ash and mudbrick fragments and detritus. Mixed among this destruction debris and lying on the floor were numerous ceramic vessels and other artifacts. Restorable ceramic vessels from Room 1 included six store jars, two cooking jugs, two juglets, one jug, and one bowl (see Plate I). One pattern recognizable and consistent throughout the room was the placement of the large storage jars near walls, probably to hold them upright. Smaller vessels generally were more centrally located. Other classes of artifacts found on the floor include a stone scale

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26 One of the few features universally agreed upon regarding the covering or otherwise roofing of the pillared dwelling is that the broad rooms were roofed (Braemer, 1982; Holladay, 1993a; Netzer, 1992; Stager, 1985b).
weight and a metal knife blade. Microartifacts were recovered from all five samples taken from floor build-up in Room 1 (see Fig. 7). The sample near installation L. F7006 in the northeast corner of the room included animal bones, cereal remains, and flint chips (Rosen, 1992). Other samples taken throughout Room 1 produced, in addition to cereals and animal bones, beachrock mortar fragments, burnt rodent bone, fish bone, and flint chips with sheen. While these artifacts and vessels were found on the floor, other artifacts were found in the debris above the floor. These include a ballista stone, one figurine fragment, one grinding stone fragment, and a hammer stone/pounder.

**Room Use**

The function of Room 1 appears straightforward. Due to the numerous large jars and the relative closeness of space in the room, storage appears to be the obvious function. The placement of the large jars around the walls of the room make moving about the confines of the room difficult (see Fig. 8). Additionally, the placement of the cooking jugs and other small vessels near the center of the room suggests that traffic was minimal. Minimal traffic in Room 1 also is suggested by the partially blocked doorway. The installation (L. F7008) in Room 5 clearly impedes passage in and out of the room. The microartifacts, however, suggest a different use of the space.

The microartifacts suggest that food preparation was the main activity performed in this room and perhaps one or two brief episodes of re-touching of flint implements. In addition to the many cereal and bone remains found in most of the samples, a high correlation coefficient was identified between bone and charcoal – highly indicative of
cooking areas (Rosen, 1992). These data in addition to a possible tabun (L. F7026) make a strong case of the room being used at some point as a food preparation area. However, at the time the Stratum VIB settlement was destroyed, it would have been virtually impossible to use Room 1 for anything other than storage due to the considerable number of large ceramic vessels present there (see Fig. 8). Any attempt to move even slightly in or about the room would have been in vain. Therefore, I suggest that storage was the main function of Room 1 immediately prior to the destruction of the VIB settlement.

It is impossible to know with certainty if the siege caused a temporary functional deviation for Room 1 as space was needed for surplus provisions, or if the change in function was longer term and not an atypical use of the room. The partially obstructed doorway better fits the second interpretation as there would not have been as much need for access to the area if it was used for long-term storage. In addition, the burnt rodent bones from the microartifacts fits well with this use of space. If the stored items included victuals or other edibles (animal fodder for example), and traffic was relatively uncommon, human commensals would certainly have been present. Ethnographic data from the Southwest Asia is useful here as it gives support for a dual role based on seasonality (Carol Kramer, 1993: personal communication).

C. Kramer has noted that during the wetter winter months in the Southwest Asia, food preparation activities often moved indoors thereby providing heat and protection from the elements for those carrying out food preparation activities (most often women throughout the Middle East). During the hot summer months, food preparation often was carried out in courtyards or other open and partially open areas at which time interior
space was used for other activities. It is possible this activity provides the observed patterning in Room 1 where an oven appears to have been dismantled and moved, possibly to exterior/courtyard space (Two ovens/hearths are known from Rooms 4 and 5). This reconstruction fits well with data employed here as the Assyrian records chronicle most campaign activity took place during the summer months. It is therefore possible that Room 1 functioned as a food preparation area during the winter months and a storage facility that did not receive heavy traffic during the summer months.

Room 2

Room Description

Moving south along the rear of the house to the second of the two broad rooms, a larger room is revealed (see fig. 4). Room 2 is a long, narrow room measuring 2.4 m (E-W) by 6.75 m (N-S) or 16.2 m square. It is surrounded on all four sides by mudbrick walls likely built on stone foundations. Evidence of this includes well preserved wall foundations several courses high and mudbrick preserved in place on the southern end of the interior wall of the room (Wall L. G8005). It should be noted that if the rear wall (western; L G8002) of Room 2 served as the perimeter wall of the fortification system, then it likely would have been completed with field stones instead of mudbrick to its original standing height. The floor of Room 2 (L. G8005) was treated in a similar manner to Room 1 with well laid small cobbles. Access to the room was gained through two doorways in the eastern wall (L. G8005), one on the northern end of the room and one on the southern end. These doorways led into Rooms 5 and 3 respectively (see Fig. 5). The
northern entryway leading into Room 5 is built with a raised threshold similar to the one in Room 1. However no threshold exists between Rooms 2 and 3. Also noteworthy is the placement of a poorly preserved installation/feature in Room 5, directly in front of the doorway. This poorly preserved, semi-circular feature effectively blocks direct passage between Rooms 2 and 5, if it was built taller than its preserved height (approximately .10 -.15m). No other permanent features were found preserved in the archaeological remains of Room 2. It must be noted that the southwest corner of the room is poorly preserved due to its close proximity to the western slope of the tell and the modern ground surface. This was addressed already in the discussion of natural formation processes (see Fig. 3).

The overburden of destruction debris in this room varies in the depth of its accumulation from ca. .50 m in its northeastern corner to ca. .15 -.20 m in its southwestern corner. Most of the fill is composed of destruction debris. Clean, undisturbed Iron II (stratum VIB) loci are encountered relatively close to the modern ground surface. Artifacts belonging to the restorable ceramics of the de facto assemblage were observed throughout these deposits. Often, sherds found in topsoil could be refitted with restored vessels found closer to floor levels. The debris which covers this room consisted of proportionately enormous amounts of ash, especially dark gray to black ash, on or near the cobbled floor. Many artifacts were found in the burned ash and debris, and a pattern became noticeable immediately. Virtually all of the de facto assemblage excavated from Room 2 was confined to the northern third of the room (see Fig. 8). For this reason Room 2 is divided into two spatially segregated areas: Area B consisting of a little less than half of the northern area of the room and Area C including the remaining
space to the south in Room 2 (see Fig. 4).

Area B measures approximately 2.4 x 3.25 m and was accessed through a doorway leading to Room 4 or through Area C (see Fig. 5). This area contains a substantial number and variety of artifacts. Ceramic vessels were smashed thoroughly and spread across the floor in this area. They include three store jars, one pithos, three jugs and pitchers, two cooking pots, one krater, four bowls, two juglets, and one fenestrated stand (see Pl. 2). Other artifacts included a bone disk, a worked bone tool, one horn core, two polished stones, one ballista, two pieces of pumice, two grinding stone fragments, two finely dressed (squared with beveled edges) "standing stones" or massevot, and the head of a pillar figurine. Two arrow points also were found but these were located above the floor in the fill. Three microartifact samples were taken in areas falling inside Area B (see Fig. 7). Only two tested positive for microartifacts yielding grape pips (dominated one sample), cereals, legumes, and fish bones and scales.

Area C measures approximately 2.4 x 3.75 m and was accessed through a doorway leading into Room 3 or through Area B (see Fig. 5). The nature of the material in this area – or lack thereof – is markedly different. While the accumulation of destruction debris is similar to Area B in most places, a dramatic decrease in the number of artifacts, both large and micro, was observed. No restorable ceramic vessels were found in this area and the only observed artifact included 1 grinding stone fragment. Microartifacts were similarly rare. Of four samples taken only one produced microartifacts in the form of a beachrock mortar fragment (see Fig. 7).
Room Use

Determining the function of Room 2 and identifying activities taking place therein is a bit more complicated than for Room 1. The quantity and variety of artifacts in the northern area (Area B) of the room is greater than in any area in the dwelling (see Fig. 8). Conversely the southern half of the room (Area C) is virtually barren of *de facto* refuse, more so than any area in the dwelling. However, when these two factors are combined they can be telling regarding room function. The ceramics in Area B are numerous and eleven of the fifteen fit well in functional classes associated with food serving and consumption (see Pl. 2). The microartifacts also support the conclusion of food consumption in this area. However, the grouping of these ceramics with three store jars, one pithos, one fenestrated stand and a plethora of greatly varied artifacts suggests these vessels and other classes of artifacts are in storage, possibly for use in this room. Their storage in one of the only rooms with broad spaced unoccupied by features and other remains is significant. Many of the artifacts (e.g. pumice, bone “disk,” pillar figurine, and standing stones) in addition to the majority of ceramics are good indicators of activities taking place in “living rooms,” or areas where food consumption, domestic ritual activity, entertaining guests, socializing, sleeping, etc. occurred. Additionally, the careful preparation of the floor in this room is consistent with floors from living rooms observed ethnographically in Southwest Asia (Kramer, 1982a; Watson, 1979). There is ample space in Area C for these types of activities to have taken place and no other room excavated better meets these needs.

One class of ceramic vessels is enlightening in this regard. The small cup bowls
(Pl. 2: nos. 14, 15, 16, and 17), were probably used for the consumption of liquids. Such an interpretation is consistent with their size, shape, finish, and rim treatment. The bowls are found almost exclusively in the broad room (5 of 6 examples - 83%). This interesting pattern was noticed when a similar dwelling was excavated to the south of the pillared dwelling. The second dwelling yielded no examples of this common class of vessel. The broad rooms of this dwelling were no longer intact, having been washed down the western slope. In searching for comparative material, the nearby site (spatially and temporally) of Beer Sheva was examined for similar patterns. Examples from three pillared dwellings in the “Western Quarter” were studied and eleven examples of the cup bowl were published and located by room (Beit Arieh, 1973). Of the 11 bowls, 9, or 82%, were found in broad rooms similar to those at Halif.

It is certainly too preliminary to assert anything with great confidence, but perhaps these “cups bowls,” when found in quantities greater than one or two, can be used to identify “living rooms” within dwellings where the occupants may have shared their meals, social activities, and leisure time. The room in which these vessels are found certainly is better suited than any room identified in the Field IV dwelling (see following discussion). But these assertions are only preliminary and more research is necessary. However, it is prudent to identify Room 2 as a living room.

A number of activities can be inferred from the artifacts and their spatial organization in Room 2. Based on the cup-bowls, and pitchers, as well as a number of other bowls, activities associated with food consumption probably occurred in this room. Ample space was available for a number of individuals to partake in food consumption
Ethnographic data suggests that the occurrences of large bowls or krater-type bowls (see Pl. 2: no. 6), are consistently found among folk who consume their meals together (Henrickson and McDonald, 1983).

Apparent ritual/religious activity occurred in Room 2. The standing stones, pillar figurine, and fenestrated stand (Pl. 2: no. 9) are suggestive of this activity (Nakai, 1994) if these items were used in Room 2. Two additional vessels could be used in ritual activity as well – one cooking pot/bowl (Pl. 2: no. 8) and one small vase (Pl 2: no. 12). The fenestrated stand and the cooker/bowl were found lying next to one another in the debris on the floor, and possibly functioned together in ritual activity. The rim of the fenestrated stand exhibits noticeable edge wear from objects resting on or rubbing against its uppermost edge. The size and location of the cooking pot/bowl, the only known example of this type from the site, implicate its use in this stacking activity. The interior surface of the bowl/cooker was covered with a thick, dark charred substance. To determine the identity of the substance residue analyses were undertaken but the substance was too badly carbonized to be identified. Carbonization could have occurred during the conflagration which destroyed the pillared dwelling or when a substance was burned in the bowl after it was placed upon the stand. A beautifully-shaped, vase-juglet, reminiscent of an up-side-down pomegranate also was found near this assemblage (Pl. 2: no. 12). Its delicate form, well-levigated clays, and nice vertically burnished finish set is apart from the typical, utilitarian ceramics common in the Iron II period. A small black juglet (Pl. 2: no. 13) commonly associated with the storage of oils, perfumes, or other types of unguents was recovered in the same vicinity as this assemblage. These remains
suggest ritual activities were practiced in or near the confines of Room 2.

**Room 3**

**Room Description**

Room 3 is the southern-most of the three long rooms in the pillared dwelling (see Fig. 4). It was separated from the other two long rooms (Rooms 4 and 5) by a solid wall. This room measures 2.5 m wide (N-S) and at least 6.75 m long (E-W) or 16.88 m square. The eastern most extent of the room disappears into unexcavated areas but excavation areas to its northeast (G6) eliminate its extension further east (see Fig. 2). Access to Room 3 was gained through an entryway shared with Room 2 (described above) and also through Room 4 if the row of stones at the end of the preserved extent of the northern wall (L. G7023) are the remains of a raised threshold (see Fig. 3). The remainder of the wall was not preserved past this point due to later scavenging. This also is the case for the entire southern wall of the room (L. H7011). This wall was completely robbed-out except for a re-used pillar protruding into the wall line from earlier strata (L. H7014).

However, easily identified robber trenches suggest both long walls of Room 3 were solid walls (see Fig. 3). The condition and nature of the eastern short wall is unknown. It is possible that a doorway was placed there allowing access into the dwelling from the outside but this could not be determined since this area was not excavated.\(^{27}\) In light of

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\(^{27}\) The presence of a large tree (Jerusalem Pine planted in 1957) in this area (H6) hampered excavation proceeding further in an easterly direction. It was not allowed that the tree could be removed.
poor wall preservation, the packed earth floor of Room 3 (L. H7005) is surprisingly well preserved, sealed under an accumulation of destruction debris .25 - .45 m deep. Included in the fill were numerous mudbricks – whole, fragmented, and in the form of detritus. Evidence of burning in this room is significant as substantial accumulations of gray and black ash were found in pockets throughout the floor and the covering destruction debris. Pottery sherds lying on the floor showed signs of intense heat, including re-firing and “bending” to become misshapen (thus virtually impossible to mend through refitting). Some appeared to be vitrified, as glassy, glazed-looking surfaces were observed where these sherds came into contact with floors. A number of installations/features were discovered and one of these divides the room in half. A line of small stone pebbles or cobbles (.10 - .20 m), some perforated, runs perpendicular to the two robbed out long walls just east of the center of the room (see Fig. 3 : L. H7012). It is described in the field excavation notes as a possible partition wall. The feature effectively divides the room into two areas which are treated separately below. The area west of this feature will be referred to as Area D and the area east of the feature as Area E (see Fig. 5).

While Area D furnished no restorable ceramics, a number of clay artifacts were revealed. A total of 7 loom weights were found, 5 lying directly on the floor and 2 immediately above it mixed in the destruction debris. All of these were found in the eastern part of Area D within 1.5 m of the stone feature halving the room. In addition to the loom weights, 1 basalt maul and 1 pitted stone were recovered. Only one microartifact sample was collected in this area and it tested negative for microartifacts (see Fig. 7).

The remainder of the space of Room 3, the eastern half, is included in Area E (see
Fig. 5). Excavation of this area revealed numerous features and artifactual remains on the floor. Adjacent to the stone feature dividing the areas is a small semi-circular installation made of fieldstones and abutting the southern wall of Room 3 (see Fig. 3).

Approximately .5 m to the east of this installation a stone-lined bin was dug into the floor. It is approximately .40 m in diameter and .40 m deep. It is lined with unworked field stones and one basalt grinding stone in re-use. A number of ceramic vessels were recovered in the vicinity of these features including 4 storage jars and 2 jugs (see Pl. 3). One storage jar preserved in a very fragmentary state was found in the fill above the floors (not pictured on plate due to its fragmentary state). Other artifacts removed from the covering destruction debris included two metal arrow points, one jar stopper, one scale weight, one spindle whorl, and two grinding stones fragments. Artifacts found lying on the floor include a fragment of mother of pearl, one hammer stone, one ballista, two grinding stones, two small flat circular stones, one scale weight, one stopper, one figurine fragment, one seashell bead, one spindle whorl, and one bone spatula/weaving shuttle. Two microartifact samples taken in Area E both revealed fragments of metal slag and red ochre (see Fig. 7).

**Room Use**

The use of Room 3 is different between Areas D and E. Sparse *de facto* refuse and negative microartifact samples in Area D complicate a clear understanding of the room. Additionally, formation processes cannot be used to explain away artifactual remains. While its northern and southern walls were mined by later occupants, these
efforts do not appear to cause the artifact barrenness of Area D. Its earthen floor was preserved beneath undisturbed destruction debris throughout most its space—the exception being near the robbed-out walls. While no ceramics were found on the floor, other artifacts were recovered. They most notably include, from the eastern half of Area D, a group of 7 loom weights resting on the floor and in the destruction debris (five weights and 2 weights respectively). Their close proximity to the line of stones halving the room and the occurrence of a bone weaving shuttle on the opposite side of the stones may be revealing about the function of this line of stones—some of which are perforated. When taken together these remains strongly suggest that weaving activities were carried out in the center of Room 3. The perforated stones may have held the base of vertical poles supporting an upright loom from which the loom weights were suspended before they were baked in the conflagration and deposited on the floor as the loom’s other components were consumed in the fire. The bin next to the line of stones possibly served as a repository for the loom weights when they were not in use.

In addition to weaving, a number of other activities may have taken place in the eastern half of Room 3 (Area E). Features and artifacts buried in the de facto refuse in Area E are varied. The ceramics included four jars and two jugs—forms which can be associated with liquid storage (Pl. 3: nos. 1-6). The other artifacts generally gravitate toward the center of the room but are highly varied. A spindle whorl adds more evidence of textile working, and red ochre found in the collected microartifact samples may have been used as a pigment. It also could be suggested tentatively that the small pit/bin sunk into the floor served in a capacity in the process of textile production, perhaps as a
soaking vat for dying. Two items of personal adornment in the area are consistent with ethnographic data that suggest women performed most activities associated with textile production at the household level in Southwest Asia (Friend, 1997). It should also be noted that Tel Halif has produced more artifacts associated with weaving, especially loom weights, and spindle whorls than any other Iron II site in the southern Levant, in spite of the limited scope of excavation of Iron II deposits. Friend (1997) has proposed an active cottage industry at the site since most weaving evidence comes from domestic contexts.

Some of the other artifactual remains are more ambiguous concerning activities carried out in Area E. No specific activities could be associated with the one scale weight, green slag, three fragmentary grinding stones and a hammer stone but this evidence suggests that men as well as women used the space in this Room. But the evidence in Room 3 is strong for textile production including spinning, weaving, and possibly dying activities. This last activity might also explain the presence of the large jars.

**Room 4**

Room 4 is the central long room of the dwelling. It measures 2.75 m wide (N-S) and no more than 6.75 m (E-W) or ca. 18.6 m square (see Fig. 4). Similar to Room 3, the exact length of the room east to west cannot be determined. Preservation in area G6 is poor due to later disturbances, but the few remains that are preserved suggest a length for the central long room no greater than 6.75 m. The room could be accessed from a doorway leading to/from Room 3 or by simply walking between the pillars into Room 4.
The doorway observed between this room and Room 2 already has been described as being obstructed by an installation (Fig. 3). Based on this evidence and the occurrence of one row and course of stones extending across the entryway, the field director believes the doorway to have been completely blocked (Jacobs, 1993). However, one course and row of stones spanning entryways also is indicative of thresholds. A number are known well in other fields from Tel Halif (e.g. Field III) and other Iron II sites throughout the southern Levant. However, the fact remains that the doorway is obstructed by the installation – providing the installation extended higher than its preserved height. An additional doorway possibly existed in the eastern wall allowing access to the dwelling from the outside, but this could not be determined definitively due to disturbances of the eastern wall of the room.

Floor treatment in Room 4 consists of both flagstone pavers and packed earth. The western half of the floor treatment consisted of slightly undulating packed earth on which rest a number of installations/features. An area of the earthen surface near the doorway leading into Room 3 is heavily disturbed by an intrusive pit (L. G7006) cutting through the Stratum VIB layers (see Fig 3). The eastern half of the Room 4 floor is treated with large flagstones (.15-.35 m). For further discussion of the room, it is divided into three areas based on the differing floor types and the spatial segregation of artifacts associated with these floors and other permanent features. The areas included are F, G, and H.

Area F consists of an area measuring ca. 1.5 m square in the southwest corner of Room 4 between Installation L. G7002 and the doorway leading to Room 3 (see Fig. 5).
A small installation of 2-3 field stones is placed .20 - .30 m from the corner and was found supporting an intact store jar. Two additional store jars were found in this area along with 1 loom weight and a zoomorphic figurine fragment. No microartifacts samples were collected in this area.

Area H lies immediately north of Area F and consists of the space surrounding a large circular platform or installation laid against Room 4's western wall (L. G8006). It was built of small cobbles (.05 - .15 m) laid on the floor and measures approximately two meters in diameter (see Fig. 5). It was covered in gray and black ash but no determination could be made whether it was to be associated with the destruction debris or activities associated with the use of fire. The former association is strongest since no charcoal or seeds were detected nor were high correlation coefficients of wood and bone observed in the microartifacts. Two large pieces of plaster and cobble "chunks" were found in the debris above the installation/platform. The fragments measured approximately .50 - .60 m square and .15-.20 m thick and were not noted anywhere else in the dwelling. One flat surface was finished smoothly with lime plaster while the side opposite was not finished, exhibiting many small cobbles and pebbles (.05 -.15 m) embedded in and protruding through the plaster. The material is reminiscent of the plastered floor observed east of the dwelling in area G6 (L. G6010). It could possibly be roof fall or wall collapse or part of a poorly preserved superstructure of the platform. Artifacts associated with the installation in Area H are sparse and include only two ceramic vessels: one bowl and one krater (Pl. 5). The only microartifact sample collected yielded remains of cereals, fish bone, and egg shells.
The final area of Room 4, Area G, is located east of Areas F and H, and the intrusive pit. It consists of the space encircling the flagstone floor observed between Pillar L. G7020 and the robber trench L. H7011 (see Fig. 5). An area of floor approximately 2.5 m square was constructed of large cobbles (.15-.45 m). It was covered with accumulations of destruction debris to a depth of .50 -.75 m and contained few artifacts. Ceramics preserved on the floor included one holemouth pithos and one bowl (Pl. 6). No other artifacts were found on the flagstone floor, however, microartifacts consisted of cereals and fish bone.

Room Use

The central long room contains a number of features and artifacts that are revealing concerning the activities performed there. It is one of the more heavily disturbed areas of the dwelling (see Fig. 6). as a large pit (L. G7006) cuts through its remains, removing de facto refuse from the center of the room. Also the scavenging activity associated with the mining of the room's southern wall (L. H7011) removed stones from the southern portion of the flagstone floor (L. G7016) and disturbed de facto refuse near the wall. But other areas were not as badly disturbed and de facto refuse is present.

Two installations which flank the room to the west are preserved well. The installation in Area F is associated with 3 storage jars (Pl. 4). One was found intact on the stacked fieldstones demonstrating its use as a stand holding jars approximately .35 m above the floor. It may be significant that the jar was found lying on its side on this
platform, but more on this is included below in the discussion of Room 5. The platform in Area H was found covered in ash with two bowls placed on its surface (Pl. 5) and the microartifacts should be associated with food preparation. This feature likely served as a platform near other cooking areas used during the processes of food preparation.

Ethnographic data from Aliabad makes note of similar platforms used for a variety of purposes in courtyards near cooking areas (Kramer, 1982a, 1982b). The plaster fragments found leaning against one another on the platform should be associated with wall fall (from L. G8006) or, more likely, ceiling collapse.

Skipping the area of disturbance in the middle of Room 4, Area G consists of the area of Room 4 paved with flagstones. While some stones are missing (remaining stones are shaped curiously like a 2 x 2 meter probe), most appear to be intact. Only two ceramic vessels were found on the floor – a baggy pithos and a small bowl (Pl. 6). Microartifacts include cereals and fish. Stager (1985a) makes a compelling argument for the association of similar areas observed in other pillared dwellings with domestic stables (this covered in Ch. II). It is tempting to identify this area similarly for several reasons. The flagstone area of Room 4 is spatially segregated from the areas interpreted as "living areas." Additionally, the surface treatment is consistent with ethnographically described stables in 19th and 20th century Palestinian dwellings (Hirschfeld, 1995). Cereals in the microartifacts are supportive and it is possible the baggy pithos was used for feeding stabled animals. It would be interesting to know if the cereals found in the microartifacts are barley, which more often is associated with animal fodder than with victuals (see Kramer, 1982a).
The remains in Room 4 best fit a multi-functional interpretation for the various areas of the room. The western areas (F and H) are suggestive of food preparation and the eastern areas would function well as a domestic stable, possibly housing equids or other animal, including sheep, goats, horses, or cattle.

**Room 5**

**Room Description**

Room 5 is the third and final long room of the dwelling. It measures 3.25 m wide (N-S) and no more than 6.75 m long (E-W) or approximately 21.9 m square. Similar to Rooms 3 and 4, the exact length of the room east to west has not been determined definitively as excavation did not extend to the eastern termination of the room (see. Fig. 5). A partial wall and floor in the northwestern extremes of G6 indicates a point which it could not have extended past. These intimate a length not greater than roughly 6.75 m. The long walls of Room 5 consist of a solid stone and mudbrick northern wall and a southern pillared "wall" composed of at least two, and possibly three limestone pillars (L. G7019 and L. G7016 – third pillar possibly located in the balk between Areas G6 and G7). The pillars divide Rooms 4 and 5. The northern solid wall is actually a double wall and separates this dwelling from other remains to the north. The outer wall (L. F7012) is made of cobbles stacked at least six courses high and runs the entire length of the exposed dwelling on the northern side (same as L. F8008) (see Fig. 3). The inner wall (L. F7003) is made of beautifully preserved mudbricks laid on a stone foundation. It is preserved to a height of 1.2 m and individual bricks laid in a single row (.54 m in width) can still be
identified. This wall abuts the outer wall and parallels it the entire exposed length of Room 5. While it is described here as a wall, it is possible the structure is a bench preserved to its original height. Ceramic sherds found on its surface were refitted with sherds and vessels recovered near Stratum VIB floors deeper in the ashy Iron II destruction debris. If it is a bench, it possibly served a function in some activity taking place in Room 5. The west wall of Room 5 divides it from Room 1 and a doorway preserved in this wall allowed the only observable access to Room 1 (Fig. 4). As mentioned above, this doorway is partially obstructed by an installation leaving only .50 m of unobstructed passageway. The nature of the eastern wall could not be determined due to limited exposure in that area. It is possible the dwelling was entered and exited in this area through a doorway in Room 5, but this cannot be established with any certainty. The room also could be entered and exited freely from Room 4 by simply walking between the pillars separating these two rooms.

The floor of Room 5 consisted predominantly of leveled, hard packed earth. However, a narrow area along the northern wall was prepared with small cobbles (L. F7019) (see Fig. 3). The destruction debris covering these floors in Room 5 was deeper than any place excavated at Tel Halif to date. It consists of burned mudbricks and detritus, charred wood, and gray, brown, and black ash. Accumulations along the northern wall were over 1.25 m deep, preserving numerous artifacts, installations, and features. The only place this was not the case was near the center of the room where an intrusive stone-lined pit from the Persian Period was dug into Iron II deposits by later occupants of the site (L. G7007) (see Fig. 6). The remainder of floor space of Room 5 is
divided into smaller areas for continued description based on the relationship of artifacts and other refuse from the destruction debris and floors to more permanent architectural features and installations found on the floor of the room. These include Area I, Area J, Area K, Area L, and Area M. These are discussed in a west to east order.

Area I includes an area of .30 - .50 m surrounding the southern pillar of Room 5 (L. G7019) (see Fig. 5). A small installation made of semi-circular stones and finished with mud was placed against the northern side of the pillar. Its eastern extension was interrupted by the intrusive pit mentioned above. Many carbonized remains were recovered from its interior and black ash was apparent around the feature. Its use as a fire, hearth, or oven seems certain. Remains recovered in its immediate vicinity include a number of ceramic vessels including two store jars, two cooking pots, one krater, three bowls, one juglet, and one lamp (see Pl. 7). Other artifacts found on the floor near the installation include a pierced stone, 1 loom weight, and 1 piece of metal. Four microartifact samples were collected near Area I (see Fig. 7) and all yielded greenish slag.

Area J includes the installation which partially blocks the doorway between Rooms 1 and 5 (see Fig. 5). This semi-circular installation is laid against the west wall (L. F7007) beginning at the midpoint of the threshold between these two rooms and terminates where the west wall ends at the doorway between Rooms 5 and 2 (see Fig. 3). It measures approximately 1.2 m long and 1.3 m wide. It is built of two rows of small pebbles (.05 - .20 m) stacked atop one another to a height of three courses (ca. .30 - .35 cm) and covered with a mud plaster. Two ceramic vessels were found in the vicinity of the installation including 1 amphoriskos and 1 juglet (see Pl. 8). A ground, round stone
was found on the floor of the installation and 2 scale weights, 1 scaraboid, and 1 scarab were found in its fill. No microartifacts samples were collected in its interior.

Area K includes a small area .75 m in diameter immediately surrounding a limestone mortar sunken into the floor about .50 m from Area J (see Fig. 5). Resting on the floor to the north and east of the mortar were three large pithoi (see Pl. 8) Additional artifacts on the floor included a knife, 1 loom weight, and 1 pierced shell. Other artifacts not lying on the floor but in the same vicinity included a grinding stone and 1 arrow point. No microartifacts samples were collected in this area.

Area M includes a large quantity of artifacts found preserved along the northern wall of Room 5, roughly correlating to the cobble-prepared surface (L. F7019) (see Fig. 5). This larger area surrounds the smaller Area L which includes limited space around a tabun, or oven preserved intact on the floor (see Fig. 5). However, no patterns or spatial separations of artifacts belonging to one area or the other were immediately recognizable. The area’s close proximity to the well-preserved northern wall (over a height of 1 m) helped protect the assemblage from later disturbance. The vessels laying further away from the northern wall and closer to the intrusive pit/bin (L. G7007) were less well-preserved than were vessels closer to the wall. This is also true of vessels located near the unexcavated areas of Room 5 to the east (see Fig. 5). These disturbances caused noticeable depletions in the de facto refuse in these areas (see e.g. Pl. 10: nos. 3, 6, 7, 13, and 18). However, ceramics and artifacts that were recovered were numerous. Ceramics included twelve store jars, two pitchers, one jug, one cooking pot, four bowls, two lamps, one funnel, and one strainer (see Pl. 10). Artifacts found in the fill above floors in Area
M were numerous in the easternmost and westernmost sections of this area. In the western third of Area M, eight loom weights, two bullae, and a worked bone were recovered. In an area about a meter to the east of this first aggregation, one arrow point and two loom weights were collected from above the mudbrick of the northern wall and a stopper was found nearer the floor. The artifacts collected from the floor were more centrally dispersed in Area M and include ten loom weights, two stoppers, one bone tool, two ballistas, one scale weight, one pierced stone, one stone pounder, one metal “nail,” and two arrow points. Four microartifact samples were taken but only one yielded positive results (see Fig. 7). The western-most sample was taken from floor buildup on top of the cobbles and yielded homogenous brown flint chips. The two samples taken nearest the tabun were negative for microartifacts.

Room Use

Numerous features and a great quantity of artifacts make Room 5 one of the more interesting areas studied. The features at the west end of the room in Areas I, J, and K are consistent with food preparation and function together with areas in the western area of Room 4. These remains are consistent with a “kitchen” or food preparation/processing area. Area I served as the hearth/cooking oven, an interpretation supported by the charred remains inside the installation (L. G7019) and the number of ceramic vessels whose use is consistent with food preparation activities (see Pl. 7: nos. 4, 5, 9, and 10). Further corroboration includes microartifacts recovered from an overlapping area between Areas I and J producing cereal remains, egg shells, and fish bone. The four microartifact samples
recovered from north of the installation, all yielding greenish slag, suggest the additional activity of metal working at the hearth. A small piece of metal recovered from the area and a small, very thick-walled juglet (a crucible? see Pl. 7: no. 2) further indicate metal working activity in this area. The neighboring installations in Area J, Area K, and Area L also support the food preparation interpretation of the western areas of Room 5. The installation in Area J provided most of its finds via its covering fill and debris or leaning against its outer face (Pl. 8). The ashy debris which fills its interior possibly preserves the remains of fuel used for the installations in Areas I and L. The artifacts taken from its fill are more consistent with the de facto refuse from Area M discussed below – especially the two scale weights.

Area K furnishes excellent evidence for the processing of grains (see Fig. 5). A large limestone mortar (L. F7020) was found sunken into the floor and flanked to its north by 3 holemouth pithoi (Pl. 9: nos. 1, 2, and 3). The upper half of one pithos (Pl. 9: no. 1) was poorly preserved due to its close proximity to an intrusive stone-lined pit/bin (L. G7007). Similar pithoi with flat bases, wide orifices, and out-turned rims which allow a cover to be tied across the mouth have been linked ethnographically to the storage of dry goods such as cereals (Henrickson and McDonald, 1983). A grinder also was found in its vicinity.

Area L provides a small tabun-type oven just to the east of Areas I, J, and K. A number of vessels associated with food preparation were found in its environs but these could not be spatially segregated from vessels in Area M. Some vessels are consistent with food preparation including a small cooking pot and one large bowl (Pl. 10: nos. 9
and 11). However, these vessels possibly were used in activities associated with Area M.

In Area M, the ceramic assemblage is dominated by storage jars. These apparently were stacked one on top of another, along the cobbled portion (L. F7019) of the floor (Pl. 10). Mixed among the storage jars were other ceramics and various artifacts. The microartifacts from this area provided limited evidence of localized flint knapping; however, this activity was limited to a few isolated occurrences based on the quantity and homogeneity of the debitage (Rosen, 1993). Additionally, none of the other 3 samples produced microartifacts.

When looking at the large number of storage jars (12), it is possible the assemblage is indicative of storage, perhaps done as surplus for the ensuing siege. However, another possibility is suggested when the assemblage of artifacts and ceramics is taken as a whole. The large quantity of storage jars, the several stoppers, and the presence of a strainer and funnel are suggestive of activities associated with the processing of some type(s) of liquid. Wear traces could be observed on the exterior surface of the strainer and funnel which are consistent with their insertion into the mouths of the storage vessels. The bells on both the strainer and the funnel are much larger than known examples associated with the service of beer and wine.  

To help determine how the ceramic assemblage functioned as a whole, residue analysis was performed on selected vessels by Patrick McGovern of the Museum of Applied Science Center for Archaeology. Three of the “Imlk” type storage jars (corpus

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28 Examples of strainers with small, serving-sized bells are known well and include an example from Beer Sheva (Beer Sheva I, Pl. 63: 130).
catalog "Type 4") (Pl. 10: nos. 16, 19, and 23) were tested along with the strainer (Pl. 10: no. 14) and the funnel (Pl. 10: no. 15). Using Fourier-transform, diffuse-reflectance infrared spectrometry, high-performance liquid chromatography, and wet chemical techniques, all five vessels tested positive for tartaric acid, a substance which, in nature, is almost exclusive to grapes. Due to the residue analysis results, the large number of storage vessels, the presence of stoppers, and the size of the bells on the both the strainer and the funnel, I would suggest that activities taking place in Area M be associated with wine production processes instead of surplus storage associated with siege preparation activities. Additionally, some of the other finds in Area M, including especially the two partial bullae, are suggestive of economic (production/distribution) activities reaching outside of the domestic sphere. The assemblage would have been used as follows.

The strainer, possibly in conjunction with some type of cloth placed inside the strainer, would have been used to separate pulp and sediments from the juice of the grapes as the liquids were poured into a jar. Once the sediments were separated, the juice would have been funneled into a jar and sealed, probably with the stoppers found in the same area. Fermentation of the grape must would have proceeded in the jars. Breathing or oxygen respiration would have been necessary for the fermentation process to be completed. But, once completed, it was necessary that oxygen be denied the must to prevent the growth of bacteria which convert wine into vinegar (McGovern, 1990: 32). This need could possibly explain the large quantity of "loom weights" found in Area M.

Virtually all of the loom weights excavated in Area M were fragmentary. They were recognized as partial, mud loom weights by their circular/rounded shape and signs
of a perforated center (doughnut shaped). However, based on the context of these objects, it is tempting to identify them as stoppers.\textsuperscript{29} If traces of store jar rim indication could be identified, their presence could be explained by their use as vessel stoppers during the fermentation process. Their perforated center could be plugged and unplugged as needed to allow the grape must to breath allowing completion of the fermentation process. Once the desired degree of fermentation was reached, the perforated stopper could be permanently sealed or removed and a more permanent stopper could be applied, effectively sealing the must. Additionally, the earlier references to wear and pitting on the interior of numerous “Imlk” type jars may provide additional evidence of their use in wine, if the interiors were eroded by the acids present in the wine or chemical reactions taking place during fermentation. Further evidence of wine fermentation in these jars may include the jar from Area F, mentioned previously, found lying on its side atop a small installation in the corner of Room 4. McGovern mentions that vessels used in wine production/storage often are laid on their sides to provide constant wetting of the stoppers or clay lids to prevent oxygen penetration (McGovern, 1993). Perhaps the large jar found in Area F was place its side on this installation so that the wine would ferment or that the must would not turn to vinegar.

This reconstruction of the activities in Area M explains the presence of many artifacts preserved in the \textit{de facto} refuse and is consistent with the production of wine. The presence of the bullae suggest that this production was carried out at a level above

\textsuperscript{29} A re-examination of these artifacts for indications or other evidence of vessel rim indentations would be helpful but they currently are unavailable for study.
domestic consumption. This interpretation of economic activity associated with wine production rounds out nicely the reconstructions of the use space in the Field IV pillared dwelling.

Conclusions Regarding the Use of Space in the Field IV Pillared Dwelling

When the activities and activity areas reconstructed above for the Field IV pillared dwelling are taken as a whole, an understanding of many of the activities carried out by the archaeological household becomes clearer. It also becomes clear that many domestic activities can be identified and isolated by area in the pillared dwelling. The broad rooms (Rooms 1 and 2) and the southern most long room (Room 3) best represent “inside” or interior space. The nature of the solid walls in these rooms, floor treatment, and their separation from Rooms 4 and 5 by raised thresholds support this conclusion. This conclusion also is warranted by many of the artifacts found in the de facto refuse of these rooms. Storage is common in Rooms 1 and 2. I would suggest longer-term storage in room 1 based on the difficulty of access. The items in storage in Area B of Room 2 are consistent with items in daily or common use. These include food serving and consumption vessels, items for personal grooming (pumice), small tools (horn core and worked bone), and items associated with ritual or religious practice (standing stones, pillar figurine, and fenestrated stand). The openness of space in the southern two-thirds of the room (Area C) and the absence of features and de facto refuse cannot be explained solely by the natural disturbances to the southwest corner of the room. In areas with appreciable overburdens of destruction debris (more than .25 m), few artifacts
representing the *de facto* assemblage were recovered. This area and Area D of Room 3 are the only spatially open areas consistently demonstrating this pattern. This, along with their connection through a doorway minus a raised threshold (interior space to interior space) render these areas potent candidates as “living rooms.” These areas are suited well for the activities of food consumption, guest entertainment, ritual activities, and other social activities. It is possible such activities also took place on a second floor but this is addressed below.

The eastern half of Room 3 is consistent with space used primarily for textile production. Many of the artifacts in this area support this conclusion including the installations, loom weights, and microartifacts. In modern Southwest Aisa, domestic textile production is almost exclusively carried out by women. This, along with the items of personal adornment found among the *de facto* refuse, make a compelling case for Area E being used predominantly by women. However, the scale weight and greenish slag suggest also that other activities also were carried out in this space and some of these may be associated with men. Thus, a multi-use of this room by men and especially women best fits the data.

Women also may have been the primary “users” of the space along the western ends of the long rooms 4 and 5. All of these areas (F, H, I, J, K, and L) are consistent with food preparation activities. Cereals were ground in Area K, and used in various foods cooked in/on ovens/hearths of Areas I or M which burned fuel stored in Area J. Additionally, cooking occurred in Room 1 during at least part of the year. Further, food preparation could have taken place on the circular platform in Area H. The flow patterns
for use of this space are well planned and thought out. Food was prepared in Areas and H and K, and cooked in Areas A, I, or K. It only had to be transported a very short distance before being served in Area B of Room 2 (See Fig. 5). Everything was immediately convenient and at hand (see Fig. 5). Foods known to be prepared and served included meat from large animals including sheep/goat and cattle, and cereals, eggs, grapes, legumes, and, interestingly enough for a desert settlement, fish. Fish remains turned up in virtually every room and are one of the commonest artifacts retrieved in microartifact samples. They likely were dried and transported from the Mediterranean coast (Oded Borowski, 1999: personal communication).³⁰

Activities in this same food preparation area also could be associated with men. This is evidenced by the common occurrence of greenish slag around Area I produced from small-scale metal working. A small, thick-walled juglet occurring here also is evidence of this activity if its identification as a crucible is correct.

The eastern half of Room 4 is consistent with areas understood best as a domestic stable. Floor preparation is ideal for this function – the flagstones are easily cleaned of animal excrement while urine is allowed to percolate through their surface. Additionally, its location next to the wall used for entering the dwelling meant that animals could be led in and out of the enclosure without traipsing through space used in other ways. It also has been suggested that the baggy type hole-mouth pithos found in this area was possibly

³⁰It was communicated to me by Oded Borowski that the fish bones and scales retrieved from both the microartifact samples and the 1/4 mesh screens were consistent with species from the Mediterranean Sea.
a food container used for storage or for serving the stabled animals.

Finally the function of the area north of the flagstone floor, Area M, is consistent with activities associated with the production of wine including especially the twelve large jars – three of which tested positive for wine, the funnel and strainer, and numerous stoppers. The scale of the operation and presence of two bullae suggest the activity was undertaken at a level beyond domestic or personal consumption. A vintner appears to have used this space. That spatial location of jars may be related to function or contents has been observed ethnographically in the southern Levant. In his early ethnographic observations, Dalman notes that the storage of wine, oil, and possibly beer is usually located in a dark interior room or cellar (1935: 251-2). Burned beams lying directly on the floor of Area M as well as the occurrence of two lamps in its vicinity (Pl. 10: nos. 2 and 5) provide evidence that this space was roofed. The must in the jars would easily have fermented at room temperature. The roofing, or spanning, of this space raises an issue about the remainder of the space in Rooms 4 and 5.

It has already been proposed that Room 1, 2, and 3 were completely roofed. Also discussed previously (Chapter 2), is that many scholars believe one of the pillared long rooms usually was left open to serve as a courtyard. Many of the activities occurring in Rooms 4 and 5 are consistent with those occurring in courtyards as will be demonstrated in the next chapter. However, does this mean that areas outside of area M were left uncovered? The data here suggest not. The two pillars separating Rooms 4 and 5 are structural supports for roofing material. Therefore, their presence suggests that at least half of this space – Room 4 or Room 5 – was spanned by a roof. Roof material in Area
M suggests that Room 5 was covered and, similarly, roof material and the occurrence of lamps in Areas H and I intimate that the western half of Room 4 was covered. Additionally, ethnographic data demonstrates that stabling areas usually, in fact almost exclusively, are covered (Hirschfeld, 1995; Holladay, 1986, 1992). If the interpretation of this area is correct, I would suggested that the majority of space in Rooms 4 and 5 was roofed. However, it also is possible that a small area was left unroofed allowing light to enter and smoke to escape. It is possible that a small area between two of the pillars, or a pillar and a wall was left open serving as a skylight and exhaust vent. It is likely that most of the floor area of the Field IV pillared dwelling was roofed. It also is quite possible that some or all of the roofed area carried a second floor.

The structural integrity of the pillared dwelling is such that it easily could have carried additional stories. Such would have provided more living space for the occupants of the dwelling (already 79 square meters of interior space). The most likely candidates for rooms carrying an additional story are the broad rooms. This likeliness is strengthened by the knowledge that the broad rooms of the Field IV pillared dwelling are incorporated into the casemate defense system. Such walls usually were built higher than a single story (Yadin, 1963; Ussishkin, 1982) and likely would have held additional rooms. However, presently, the depth of destruction debris covering the broad rooms is less than in any other area of the dwelling due to its close proximity to the modern slope of the tell. Thus, this assertion cannot be substantiated archaeologically. Parts of the roof also could have been utilized as activity areas even in the absence of a second story, but this also cannot be supported archaeologically.
What can be said is that the Field IV dwelling’s occupants carried out a number of domestic activities in the confines of the pillared dwelling. Its occupants stored goods, cooked and otherwise prepared food, served and ate meals. Large krater-type bowls suggest the meals were shared as a social activity among the occupants of the dwelling. They dined on food produced locally as well as food imported from the Mediterranean coastal regions. The occupants carried out ritual activities, stabled animals, a vintner produced wine, and women produced textiles at the domestic level or perhaps as a cottage industry. The occupants also likely entertained guests, socialized children, and slept in the dwelling. I would further argue that the layout of space and the accompanying artifacts do not permit for the exclusion of women or men from the various activity areas or the space is used exclusively by one group or the other. While there is strong ethnographic and analogical based evidence that space often is gendered – that one sex used an area more commonly than the another – nothing in the patterns of material culture or the divisions in the pillared dwelling’s space suggests women were secluded.

This reconstruction of activities carried out in the Field IV pillared dwelling suggests that a number of questions raised at the end of Chapter II can be successfully addressed regarding the usefulness of de facto refuse preserved in the destruction stratum at Iron II Tel Halif for reconstructing activities carried out in the pillared dwelling.

Many of the artifacts preserved in the destruction stratum at Iron II Tel Halif are part of a de facto assemblage and remain where they were abandoned when the Iron II settlement was destroyed. These data can well be separated from secondary refuse as well as most primary refuse deposited on floors prior to settlement destruction. Also,
many of the patterns introduced into the archaeological record through cultural and natural formation processes can be identified and accounted for and mostly ruled out as causing the patterning observed in the *de facto* refuse. A great number of behavioral inferences regarding the use of space in the Field IV pillared dwelling are possible based on observed patterning in the ceramics and other *de facto* artifacts preserved in the destruction stratum.

Ceramics from the *de facto* assemblage are very useful for making behavioral inferences with respect to the use of space. Areas where they occur in patterned ways are suggestive of a number of activities taking place in the pillared dwelling including domestic (storage, food preparation, food consumption, ritual activity) and economic (vintnering and weavint) activities. Equally important is the observation that areas devoid of ceramics and other *de facto* refuse are nonetheless useful for understanding the overall use of space (e.g. living rooms where sleeping and other activities took place). The activities inferred above regarding activities undertaken in the pillared dwelling appear to have more to do with everyday activities than abnormal patterns associated with defensive situations brought about through siege by an foreign aggressor. Microartifacts in primary contexts were instrumental in this determination. Thus, the ceramic variability at Tel Halif is sufficiently patterned so as to allow inferences to be made of domestic and economic activities taking place in behavioral contexts in pillared dwellings. However, it also is important to note that a number of activities would not have been successfully identified had other categories of artifacts and features not been employed (e.g. stabling area, textile production, and some food preparation). It is thus necessary to employ as
many sources and classes of data as possible. Especially useful are permanent features and microartifacts.

Using several classes of artifactual data from the *de facto* refuse, a number of specific areas can be identified including living rooms, storage areas, kitchens, and areas associated with industrial/economic activities or ritual/cultic activity? To a degree, it also is possible to reconstruct the individuals carrying out the activities, or at least, in some instances and areas, their likely gender and their associated technologies (masculine include vintnering and feminine include weaving and food preparation). Admittedly this is dependent on ethnographic data (see Hill, 1998 for problems). It still remains that the space in the Field IV pillared dwelling can be interpreted in very specific ways. Therefore, the next series of questions raised at the end of Chapter II, those that address the archaeological household, as well as Iron II household organization can be addressed.

The next series of questions moves beyond using ceramics and other artifacts and their distributions to infer activities and activity areas. These questions endeavor to determine how these activities, once identified, were organized. If this can be determined, then the next step is to ascertain how this determination can be used to identify the organization of the archaeological household and ultimately the organization of the Iron II household. The spatial analysis of the pillared dwelling at Tel Halif described in this chapter lays a considerable foundation pursuant to this goal by identifying a number of activities that regularly occurred in the space of the pillared dwelling, where in this space they regularly occurred, and who carried them out. To move beyond the identification of these activities and address their organization, one
must rely on ethnographic and ethnoarchaeological data to provide analogous materials with which to make inferences concerning the organization of the archaeological household. Thus, the identification of the organization of the members of the archaeological household at Tel Halif is sought using ethnographic and ethnoarchaeological data to understand the Tel Halif archaeological record at a level greater than the identification of activity areas.
Fig. 2  Field IV, Tell Halif
Figure 3. Tel Halif - Field IV - Pillared Dwelling
Features and Loci
Figure 4. Tel Halif - Field IV - Pillared Dwelling
Room Identifications
Figure 6. Disturbances to Pillared Dwelling

- Erosion - (slope decline)
- Mining Activities - (building materials)
- Pits/Bins
Figure 7. Distribution of Microartifact Samples

Pillared Dwelling

Positive Samples    Negative Samples

😊                 😞
Figure 8. Tel Halif - Field IV - Pillared Dwelling
Isometric Reconstruction
Ceramics Distributed in Archaeological Context
<table>
<thead>
<tr>
<th>Plate #</th>
<th>Pottery Type</th>
<th>Class</th>
<th>Weight (g)</th>
<th>Vessel #</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Lmlk Jar</td>
<td>4</td>
<td>8420</td>
<td>IV.F8.5.1</td>
<td>Technique: Wheel. Paste: 2.5YR 6/8 &quot;light red&quot;; few small limestone, few small to medium ceramic; gray core; hard; Surface: (Interior): SYR 5/2 &quot;reddish gray&quot;, (Exterior): SYR 5/3 &quot;reddish brown&quot;, slip. (215)</td>
</tr>
<tr>
<td>2</td>
<td>Lmlk Jar</td>
<td>4</td>
<td>4819</td>
<td>IV.F8.20.1</td>
<td>Technique: Wheel. Paste: 5YR 5/6&quot;yellowish red&quot;; some small to medium limestone, few very small sand; gray core; hard; Surface:(Interior): 5YR 5/1 &quot;gray&quot;, (Exterior): 10R 5/4 weakened red. (72)</td>
</tr>
<tr>
<td>3</td>
<td>Cooking Jug</td>
<td>100B</td>
<td>554</td>
<td>IV.F8.5.5</td>
<td>Technique: Wheel. Paste: 2.5YR 5/6 &quot;red&quot;; some to many very small sand, few large limestone; light gray core; hard; Surface: (Interior): as paste, (Exterior): as paste. (27)</td>
</tr>
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<td>4</td>
<td>Cooking Jug</td>
<td>95B</td>
<td>567</td>
<td>IV.F8.20.2</td>
<td>Technique: Wheel. Paste: 2.5YR 5/6 &quot;red&quot;; many small sand; light gray core; hard; Surface:(Interior): as paste, (Exterior): as paste. (32)</td>
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<td>5</td>
<td>Storage Jar</td>
<td>19</td>
<td>2858</td>
<td>IV.F7.103.1</td>
<td>Technique: Wheel. Paste: 5YR 5/6 &quot;yellowish red&quot;; some small to medium limestone, few small ceramic, few very small sand; no core; hard; Surface:(Interior): 5YR 6/1 &quot;gray&quot;, (Exterior): 7.5YR 6/4 &quot;light brown&quot;. (84)</td>
</tr>
<tr>
<td>6</td>
<td>Lmlk Jar</td>
<td>4</td>
<td>3600</td>
<td>IV.F8.12.2</td>
<td>Technique: Wheel. Paste: 2.5YR 5/8 &quot;red&quot;; limestone small to large, few very small sand, few small to medium wadigravel; gray core; hard; Surface:(Interior): 2.5YR 6/4 &quot;light reddish brown&quot;, (Exterior): 7.5YR 5/2 &quot;brown&quot;. (93)</td>
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<tr>
<td>7</td>
<td>Jug</td>
<td>23</td>
<td>228</td>
<td>IV.F8.10.1</td>
<td>Technique: Wheel. Paste: 2.5YR 5/6 &quot;red&quot;; few very small to small limestone, few very small sand; no core; hard; Surface: (Interior): 2.5YR 5/6 &quot;red&quot; burnished and slip on inner rim 2.5cm down same as exterior, (Exterior): 10R 4/6 &quot;red&quot; heavy slip burnished (vertical). (15)</td>
</tr>
<tr>
<td>8</td>
<td>Bowl</td>
<td>68</td>
<td>150</td>
<td>IV.F8.12.1</td>
<td>Technique: Wheel. Paste: 5YR 6/6 &quot;reddish yellow&quot;; few small to medium limestone, very few medium wadigravel; light gray core; hard; Surface:(Interior): as paste, (Exterior): as paste. (4)</td>
</tr>
<tr>
<td>9</td>
<td>Juglet</td>
<td>54</td>
<td>110</td>
<td>IV.F7.109.4</td>
<td>Technique: Wheel. Paste: 6/8 &quot;light red&quot;; few medium wadigravel, some very small sand; no core; hard; Surface: (Interior): 7.5YR 6/6 &quot;reddish yellow&quot;, (Exterior): 2.5YR 6/6 &quot;light red&quot; vertical burnished. (14)</td>
</tr>
<tr>
<td>10</td>
<td>Juglet</td>
<td>57</td>
<td>95</td>
<td>IV.F8.9.1</td>
<td>Technique: Wheel. Paste: 5YR 6/8 &quot;reddish yellow&quot;; few very small sand, few small to large limestone, few medium wadigravel; no core; hard; Surface:(Interior): SYR 7/6 &quot;reddish yellow&quot;, (Exterior): SYR 7/6 &quot;reddish yellow&quot;, slip: 10R 4/8 &quot;red&quot;. (7)</td>
</tr>
<tr>
<td>11</td>
<td>Lmlk Jar</td>
<td>4</td>
<td>6180</td>
<td>IV.F8.17/C.1</td>
<td>Technique: Wheel. Paste: 5YR 5/1 &quot;gray&quot;; few very small sand, few small to large limestone, few small wadigravel; gray core; hard; Surface:(Interior): SYR 4/1 dark gray, (Exterior): 2.5YR 6/6 light red, (152)</td>
</tr>
<tr>
<td>12</td>
<td>Storage Jar</td>
<td>11</td>
<td>4536</td>
<td>IV.F8.3.1</td>
<td>Technique: Wheel. Paste: 5YR 4/4 &quot;reddish brown&quot;; very few small limestone, some very small sand; gray core; hard; Surface: (Interior): 2.5YR 6/6 &quot;light red&quot;, (Exterior): 10YR 7/2 &quot;light gray&quot; slip. (89)</td>
</tr>
<tr>
<td>Plate #</td>
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<td>Weight (g)</td>
<td>Vessel #</td>
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<td>Pithos</td>
<td>7</td>
<td>5131</td>
<td>IV.G8.49/C.1</td>
<td>Technique: Wheel. Paste: 2.5YR 5/6 &quot;red&quot;; some small to medium ceramic, some small to medium limestone; no core; hard; Surface: (Interior): 7.5YR 6/4 &quot;light brown&quot;. (142)</td>
</tr>
<tr>
<td>2</td>
<td>Lmlk Jar</td>
<td>4</td>
<td>11249</td>
<td>IV.G8.20/C.1</td>
<td>Technique: Wheel. Paste: 5YR 4/1 &quot;dark gray&quot;; few small sand, few medium to large limestone; dark gray core; hard; Surface: (Interior): 5YR 6/2 &quot;grayish brown&quot;. (129)</td>
</tr>
<tr>
<td>3</td>
<td>Pitcher</td>
<td>21</td>
<td>2154</td>
<td>IV.G8.22/A.34</td>
<td>Technique: Wheel. Paste: 2.5YR 4/8 &quot;red&quot;; few medium to large limestone, some small sand; no core; hard; Surface: (Interior): 2.5YR 5/4 &quot;light reddish brown&quot;. (88)</td>
</tr>
<tr>
<td>4</td>
<td>Storage Jar</td>
<td>17</td>
<td>3401</td>
<td>IV.G8.49/D.1</td>
<td>Technique: Wheel. Paste: 5YR 6/4 &quot;light reddish brown&quot;; very few small ceramic, very few small limestone; gray core; hard; Surface: (Interior): 2.5YR 6/4 &quot;light reddish brown&quot;. (129)</td>
</tr>
<tr>
<td>5</td>
<td>Lmlk Jar</td>
<td>4</td>
<td>7187</td>
<td>IV.G8.49/A.3</td>
<td>Technique: Wheel. Paste: 5YR 5/4 &quot;reddish brown&quot;; few small to medium sand, very few very small limestone; gray core; hard; Surface: (Interior): 5YR 5/4 &quot;reddish brown&quot;. (89)</td>
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<td>6</td>
<td>Bowls</td>
<td>86</td>
<td>4880</td>
<td>IV.G8.49/A.2</td>
<td>Technique: Wheel. Paste: 2.5YR 5/6 &quot;red&quot;; some to many very small lime; dark gray core; hard; Surface: (Interior): 2.5YR 5/2 &quot;weak red&quot;, slip and burnish. (173)</td>
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<td>7</td>
<td>Cooking Pot</td>
<td>95B</td>
<td>1064</td>
<td>IV.G8.50/C.1</td>
<td>Technique: Wheel. Paste: 5YR 6/1 &quot;gray&quot;; some small to large limestone, few very small sand, few small to large ceramics, few small to large organics; gray core; hard; Surface: (Interior): 7.5YR 7/4 &quot;reddish yellow&quot;. (72)</td>
</tr>
<tr>
<td>8</td>
<td>Cooking Pot</td>
<td>95C</td>
<td>929</td>
<td>IV.G8.48/A.1</td>
<td>Technique: Wheel. Paste: 2.5YR 4/4 &quot;reddish brown&quot;; some very small sand; few large limestone; dark gray core; hard; Surface: (Interior): 5YR 4/3 &quot;dark gray&quot;. (11)</td>
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<tr>
<td>9</td>
<td>Fenestrated Stand</td>
<td>128</td>
<td>2324</td>
<td>IV.G8.49/D.2</td>
<td>Technique: Wheel. Paste: 5YR 6/8 &quot;reddish yellow&quot;; few very small limestone and small ceramic; light gray; hard; Surface: (Interior): 5YR 7/6 &quot;reddish yellow&quot;; some paint splatters. (32)</td>
</tr>
<tr>
<td>10</td>
<td>Jug</td>
<td>21</td>
<td>163</td>
<td>IV.G8.49/B.1</td>
<td>Technique: Wheel. Paste: 2.5YR 6/4 &quot;light reddish brown&quot;; some very small sand; no core; hard; Surface: (Interior): As Paste, (Exterior): as paste. (8)</td>
</tr>
<tr>
<td>11</td>
<td>Jug</td>
<td>23</td>
<td>448</td>
<td>IV.G8.47/C.1</td>
<td>Technique: Wheel. Paste: 2.5YR 5/6 &quot;red&quot;; some small to medium ceramics, few very small limestone; neck no core; body no core; hard; Surface: (Interior): 2.5YR 6/8 &quot;light red&quot;, 10YR 6/2 &quot;light brownish gray&quot; red slip allowed to trickle inside the neck. (33)</td>
</tr>
<tr>
<td>12</td>
<td>Juglet</td>
<td>59</td>
<td>253</td>
<td>IV.G8.22/B.4</td>
<td>Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; some very small lime, few medium wadigravel; no core; hard; Surface: (Interior): As Paste, (Exterior): As Paste, vertical burnish. (18)</td>
</tr>
<tr>
<td>Plate #</td>
<td>Pottery Type</td>
<td>Class</td>
<td>Weight (g)</td>
<td>Vessel #</td>
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<td>13</td>
<td>Juglet</td>
<td>55</td>
<td>40</td>
<td>IV.G8.49.1</td>
<td>Technique: Wheel. Paste: 10YR 5/1 &quot;dark gray&quot;; some small limestone; gray core; hard; Surface: (Interior): 10YR 5/1 &quot;gray&quot;, (Exterior): same as Interior, hand burnished. (1)</td>
</tr>
<tr>
<td>14</td>
<td>Bowl</td>
<td>64</td>
<td>43</td>
<td>IV.G8.19.4</td>
<td>Technique: Wheel. Paste: 5YR 5/3 &quot;reddish brown&quot;; few small organics, few very small sand; no core; hard; Surface: (Interior): 2.5YR 3/2 &quot;dark reddish brown&quot;, slip and wheel burnish, (Exterior): 5YR 5/3 &quot;reddish brown&quot;; slip and wheel burnish 2.5cm below rim. (10)</td>
</tr>
<tr>
<td>15</td>
<td>Bowl</td>
<td>64</td>
<td>121</td>
<td>IV.G8.20.1</td>
<td>Technique: Wheel. Paste: 5YR 5/3 &quot;reddish brown&quot;; some very small sand; no core; hard; Surface: (Interior): As Paste, burnish, (Exterior): As Paste. (22)</td>
</tr>
<tr>
<td>16</td>
<td>Bowl</td>
<td>64</td>
<td>184</td>
<td>IV.G8.22/8.85</td>
<td>Technique: Wheel. Paste: 5YR 6/4 &quot;light reddish brown&quot;; few small to medium limestone; no core; hard; Surface: (Interior): as paste, wheel burnished, (Exterior): 5YR 6/4 &quot;light reddish brown&quot;. (26)</td>
</tr>
<tr>
<td>17</td>
<td>Bowl</td>
<td>64</td>
<td>157</td>
<td>IV.G8.47/C.2</td>
<td>Technique: Wheel. Paste: 5YR 6/6 &quot;reddish yellow&quot;, some very small sand, few small limestone; no core; hard; Surface: (Interior): 5YR 6/4 &quot;light reddish brown&quot;, wheel burnish, no slip, (Exterior): 5YR 7/4 &quot;pink&quot;, no slip. (16)</td>
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### Plate 3 (Descriptions)

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<th>Plate #</th>
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<th>Weight (g)</th>
<th>Vessel #</th>
<th>Description</th>
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<tr>
<td>1</td>
<td>Lmlk Jar</td>
<td>4</td>
<td>7985</td>
<td>IV.H7.29A.1</td>
<td>Technique: Wheel. Paste: 2.5YR 5/4 &quot;reddish brown&quot;; some small to large limestone; few small wadigravel; no core; hard; Surface: (Interior): Same as Exterior, (Exterior): 2.5YR 5/4 &quot;reddish brown&quot;. (157)</td>
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<tr>
<td>2</td>
<td>Storage Jar</td>
<td>11</td>
<td>1927</td>
<td>IV.H7.29/A.22</td>
<td>Technique: Wheel. Paste: 2.5YR 4/8 &quot;red&quot;; few small to large limestone, few small wadigravel, few very small sand; light gray core; hard; Surface: (Interior): 2.5YR 6/8 &quot;light red&quot;, (Exterior): 10YR 7/3 &quot;very pale brown&quot;. (22)</td>
</tr>
<tr>
<td>3</td>
<td>Jug</td>
<td>23</td>
<td>1474</td>
<td>IV.H7.28/C.7</td>
<td>Technique: Wheel. Paste: 2.5 YR 6/8 &quot;light red&quot;; few small limestone, some medium ceramics; gray core; hard; Surface: (Interior): 2.5YR 5/6 &quot;red&quot;, (Exterior): 2.5YR 6/4 &quot;light reddish brown&quot;, 2.5YR 6/6 &quot;light red&quot;, 7.5YR 7/4 &quot;pink&quot;. (142)</td>
</tr>
<tr>
<td>5</td>
<td>Lmlk Jar</td>
<td>4</td>
<td>7257</td>
<td>IV.H7.15.37</td>
<td>Technique: Wheel. Paste: 2.5YR 6/3 &quot;light reddish brown&quot;; some small to large, limestone, few very small sand; no core; hard; Surface:(Interior): 7.5YR 6/1 &quot;gray&quot;, (Exterior): as paste. (115)</td>
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### Area F

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<td>2</td>
<td>Storage Jar</td>
<td>11</td>
<td>3090</td>
<td>IV.G7.4.19</td>
<td>Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; some very small sand; no core; hard; Surface: (Interior): 10R 6/6 &quot;light red&quot;, slip, (Exterior): slip: 10YR 8/2 &quot;white&quot;. (59)</td>
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</table>

### Area H

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<th>Plate #</th>
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<th>Vessel #</th>
<th>Description</th>
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<tr>
<td>1</td>
<td>Krater</td>
<td>84</td>
<td>957</td>
<td>IV.G7.61/B.1</td>
<td>Technique: Wheel. Paste: 10R 6/6 &quot;light red&quot;; many small limestone, few small wadigravel; few small sand; gray core; hard; Surface: (Interior): 2.5YR 6/6 &quot;light red&quot;, slip, wheel burnished up onto the rim, (Exterior): 2.5YR 6/6 &quot;light red&quot;. (4)</td>
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<tr>
<td>2</td>
<td>Bowl</td>
<td>68B</td>
<td>191</td>
<td>IV.G7.65.285</td>
<td>Technique: Wheel. Paste: 2.5YR 5/4 &quot;reddish brown&quot;; few medium wadigravel, some small limestone, few large lime; gray core; hard; Surface: (Interior): 2.5YR 6/6 &quot;light red&quot;, wheel burnished, (Exterior): 2.5YR 6/6 &quot;light red&quot;. (3)</td>
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</table>
### Plate 6 (Descriptions)

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<th>Plate #</th>
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<th>Weight(g)</th>
<th>Vessel #</th>
<th>Description</th>
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<td>1</td>
<td>Pithos</td>
<td>8</td>
<td>2381</td>
<td>IV.G7.45.1</td>
<td>Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; some medium to large wadigravel, some very small to small sand, few medium lime; Surface: (Interior): 7.5YR 7/4 &quot;pink&quot;, (Exterior): As Interior. (43)</td>
</tr>
<tr>
<td>2</td>
<td>Bowl</td>
<td>69</td>
<td>46</td>
<td>IV.G7.42.23</td>
<td>Technique: Wheel. Paste: 5YR 6/4 &quot;light reddish brown&quot;; some very small sand, some very small to small limestone, some very small to small wadigravel; gray core; hard; Surface: (Interior): 2.5YR 5/4 &quot;reddish brown&quot;, slip, wheel burnished, (Exterior): 2.5YR 6/6 &quot;red&quot;, slip, wheel burnished. (2)</td>
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Plate 6
<table>
<thead>
<tr>
<th>Plate #</th>
<th>Pottery Type</th>
<th>Class</th>
<th>Weight (g)</th>
<th>Vessel #</th>
<th>Description</th>
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<tr>
<td>1</td>
<td>Lmlk Jar</td>
<td>4</td>
<td>4110</td>
<td>IV.G7.56.48</td>
<td>Technique: Wheel. Paste: 2.5YR 6/8 &quot;light red&quot;; some small to medium limestone; light gray core; hard; Surface: (Interior): 5YR 6/1 &quot;gray&quot;/&quot;light gray&quot;, (Exterior): 5YR 4/1 &quot;dark gray&quot;, slip: 5YR 6/3 &quot;light reddish brown&quot;. (103)</td>
</tr>
<tr>
<td>2</td>
<td>Juglet</td>
<td>53</td>
<td>163</td>
<td>IV.G7.46/B.2</td>
<td>Technique: Wheel. Paste: 2.5YR 5/6 &quot;red&quot;; few medium limestone, few medium wadigravel; no core; hard; Surface: (Interior): As Paste, (Exterior): slip: 2.5Y 8/2 &quot;white&quot;. (1)</td>
</tr>
<tr>
<td>3</td>
<td>Storage Jar</td>
<td>11</td>
<td>2268</td>
<td>IV.F7.85.5</td>
<td>Technique: Wheel. Paste: 5YR 7/8 &quot;reddish yellow&quot;; some very small sand, few medium sand; no core; hard; Surface: (Interior): 5Y 7/6 &quot;reddish yellow&quot;, (Exterior): as Interior. (69)</td>
</tr>
<tr>
<td>5</td>
<td>Cooking Pot</td>
<td>95B</td>
<td>1380</td>
<td>IV.F7.96/A.1</td>
<td>Technique: Wheel. Paste: 2.5YR 5/8 &quot;red&quot;; many small to medium sand; no core; hard; Surface: (Interior): As Paste, (Exterior): 5YR 5/4 &quot;reddish brown&quot;. (Exterior): 2.5YR 5/6 &quot;red&quot;. (39)</td>
</tr>
<tr>
<td>6</td>
<td>Lamp</td>
<td>107</td>
<td>141</td>
<td>IV.F7.112.2</td>
<td>Technique: Wheel. Paste: 5YR 8/6 &quot;reddish yellow&quot;; few very small limestone, few small ceramic; no core; hard; Surface: (Interior): as Paste, (Exterior): 5YR 5/6 &quot;yellowish red&quot;, slip. (4)</td>
</tr>
<tr>
<td>7</td>
<td>Bowl</td>
<td>64</td>
<td>88</td>
<td>IV.G7.65.307</td>
<td>Technique: Wheel. Paste: 5YR 6/4 &quot;light reddish brown&quot;; few small wadigravel, some very small limestone; no core; hard; Surface: (Interior): 5YR 6/4 &quot;light reddish brown&quot;, wheel burnished. (Exterior): 5YR 6/4 &quot;light reddish brown&quot;. (4)</td>
</tr>
<tr>
<td>8</td>
<td>Bowl</td>
<td>66</td>
<td>22</td>
<td>IV.F7.37.22</td>
<td>Technique: Wheel. Paste: 7.5YR 6/6 &quot;reddish yellow&quot;; some very small sand; no core; hard; Surface: (Interior): 2.5YR 5/6 &quot;red&quot; slip wheel burnish. (Exterior): as paste. (5)</td>
</tr>
<tr>
<td>9</td>
<td>Krater</td>
<td>84</td>
<td>5528</td>
<td>IV.G7.46/B.1</td>
<td>Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; few small limestone; gray core; hard; Surface: (Interior): 2.5YR 6/6 &quot;light red&quot;, wheel burnish. (Exterior): As Interior, slip down to carination: 10R 5/6 &quot;red&quot;. (15)</td>
</tr>
<tr>
<td>10</td>
<td>Bowl</td>
<td>68B</td>
<td>1794</td>
<td>IV.F7.87.1</td>
<td>Technique: Wheel. Paste: 5YR 5/4 &quot;reddish brown&quot;; some small limestone, few very small ceramic; no core; hard; Surface: (Interior): 2.5YR 6/4 &quot;light reddish brown&quot; 5YR 5/2 &quot;reddish gray&quot; wheel interior up and over rim, (Exterior): 2.5YR 6/4 &quot;light reddish brown&quot;, 5YR 6/2 pinkish gray. (15).</td>
</tr>
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## Area J

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<tr>
<th>Plate #</th>
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<th>Weight(g)</th>
<th>Vessel #</th>
<th>Description</th>
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<tr>
<td>1</td>
<td>Amphoriskos</td>
<td>40</td>
<td>521</td>
<td>IV.F7.112.1</td>
<td>Technique: Wheel. Paste: 5YR 6/6 &quot;reddish yellow&quot;; few small to medium limestone, some very small sand; no core; hard; Surface: (Interior): 2.5YR 5/8 &quot;red&quot;, (Exterior): 2.5YR 5/6 &quot;red&quot;, paint: 5YR 4/2 &quot;dark reddish gray&quot;. (36)</td>
</tr>
<tr>
<td>Not Shown</td>
<td>Juglet</td>
<td>53</td>
<td>114</td>
<td>IV.F7.10.1</td>
<td>Technique: Wheel. Paste: 7.5YR 6/6 &quot;reddish yellow&quot;; few small limestone; light gray core; hard; Surface: (Interior): 10YR 6/6 &quot;brownish yellow&quot;, (Exterior): same as paste, hand burnished, slip: 10R 5/6 &quot;red&quot;; not restorable, no drawing. (29)</td>
</tr>
</tbody>
</table>

## Area K

<p>| 1 | Pithos | 7 | 2239 | IV.F7.48/C.1 | Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; some medium large limestone; some medium wadigravel, very few crystal; light gray core; hard; Surface: (Interior): 7/5YR 6/4 &quot;light brown&quot;, (Exterior): 2.5YR 5/6 &quot;red&quot;. (51) |
| 2 | Pithos | 7 | 7541 | IV.F7.15/A.1 | Technique: Wheel. Paste: 7.5YR 6/4 &quot;light brown&quot;; few very small sand, few medium limestone; light gray; hard; Surface: (Interior): 10YR 6/3 &quot;pale brown&quot; 10YR 6/4 &quot;light yellow brown&quot;, (Exterior): 5YR 6/6 &quot;reddish yellow&quot;, 5YR 6/4 &quot;light reddish brown&quot;, 5YR 7/2 &quot;light gray&quot;. (115) |
| 3 | Pithos | 7 | 10092 | IV.F7.95/A.1 | Technique: Wheel. Paste: 5YR 6/6 &quot;reddish yellow&quot;; some very small sand, few small wadigravel and limestone; no core; hard; Surface: (Interior): as paste, (Exterior): as paste. (56) |</p>
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<th>Weight (g)</th>
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<th>Description</th>
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<tr>
<td>1</td>
<td>Storage Jar</td>
<td>11</td>
<td>4196</td>
<td>IV.F7.88.1</td>
<td>Technique: Wheel. Paste: 2.5YR 5/6 &quot;red&quot;; very few small limestone, some very small sand; gray core; hard; Surface: (Interior): as paste, (Exterior): 2.5YR 7/2 &quot;light gray&quot;, slip. (79)</td>
</tr>
<tr>
<td>2</td>
<td>Lamp</td>
<td>107</td>
<td>245</td>
<td>IV.F7.12/B.1</td>
<td>Technique: Wheel and pinched. Paste: 10YR 7/3 &quot;very pale brown&quot;; few small to medium limestone; no core; hard; Surface: (Interior): as paste, (Exterior): as paste. (1)</td>
</tr>
<tr>
<td>3</td>
<td>Lmlk Jar</td>
<td>4</td>
<td>2267</td>
<td>IV.F7.93/C.7</td>
<td>Technique: Wheel. Paste: 2.5YR 6/8 &quot;light red&quot;; some small to large limestone; few small to medium wadigravel; light gray core; hard; Surface: (Interior): 5YR 7/4 &quot;pink&quot;, (Exterior): 2.5YR &quot;light reddish brown&quot;, slip below handles 2.5YR 4/2 &quot;weak red&quot;. (49)</td>
</tr>
<tr>
<td>4</td>
<td>Storage Jar</td>
<td>11</td>
<td>5613</td>
<td>IV.F7.12/D.1</td>
<td>Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; few small to large limestone; some very small sand; gray core; hard; Surface: (Interior): 2.5YR 6/6 &quot;light red&quot;, (Exterior): 7.5YR 7/3 &quot;pink&quot;; slip: shaved or wiped on bottom half. (50)</td>
</tr>
<tr>
<td>5</td>
<td>Lamp</td>
<td>107</td>
<td>188</td>
<td>IV.F7.37.10</td>
<td>Technique: Wheel. Paste: 5YR 6/6 &quot;reddish yellow&quot;; few medium to small limestone, few to some medium ceramic; dark gray core; hard; Surface: (Interior): 2.5YR 6/6 &quot;light red&quot;, (Exterior): 7.5YR 6/4 &quot;light reddish brown&quot;. (129)</td>
</tr>
<tr>
<td>6</td>
<td>Lmlk Jar</td>
<td>4</td>
<td>4536</td>
<td>IV.F7.47/D.4</td>
<td>Technique: Wheel. Paste: 5YR 5/8 &quot;yellowish red&quot;; some small to medium, few large limestone, few very small sand; gray core; hard; Surface: (Interior): 2.5YR 6/6 &quot;light red&quot;, (Exterior): 5YR 6/4 &quot;light reddish brown&quot;. (1)</td>
</tr>
<tr>
<td>7</td>
<td>Bowl</td>
<td>68</td>
<td>96</td>
<td>IV.F7.40.1</td>
<td>Technique: Wheel. Paste: 5YR 6/6 &quot;reddish yellow&quot;; very few small ceramic, small limestone; very light gray core; hard; Surface: (Interior): 2.5YR 6/6 &quot;light reddish brown&quot;, red slip and wheel burnished, (Exterior): 5Y 6/4 &quot;light reddish brown&quot;, red slip: 10R 5/6. (1)</td>
</tr>
<tr>
<td>8</td>
<td>Bowl</td>
<td>66</td>
<td>221</td>
<td>IV.F7.15/B.1</td>
<td>Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; some very small sand, some small to large limestone, few small to medium wadigravel; no core; hard; Surface: (Interior): as paste, wheel burnished (Exterior): as paste. (9)</td>
</tr>
<tr>
<td>9</td>
<td>Cooking Pot</td>
<td>100C</td>
<td>190</td>
<td>IV.F7.47/B.1</td>
<td>Technique: Wheel. Paste: 2.5YR 4/6 &quot;red&quot;; few small limestone, few small ceramic; no core; hard; Surface: (Interior): 2.5YR 4/6 &quot;red&quot;, (Exterior): as paste, self slip?. (13)</td>
</tr>
<tr>
<td>10</td>
<td>Bowl</td>
<td>64</td>
<td>74</td>
<td>IV.F7.46/D.1</td>
<td>Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; few very small sand; light gray core; hard; Surface: (Exterior): 10R 5/6 &quot;red&quot; slip wheel burnish, (Exterior): 10R 5/6 &quot;red&quot; slip. (14)</td>
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<tr>
<td>11</td>
<td>Bowl</td>
<td>68</td>
<td>855</td>
<td>IV.F7.37.9</td>
<td>Technique: Wheel. Paste: 5YR 5/4 &quot;reddish brown&quot;; few medium to large limestone, few medium to large ceramic; light gray; hard; Surface: (Interior): 5Y 5/6 &quot;yellowish red&quot;, (Exterior): 7.5YR 6/4 &quot;light brown&quot;. (14)</td>
</tr>
<tr>
<td>12</td>
<td>Pitcher</td>
<td>21</td>
<td>1155</td>
<td>IV.F7.46/A.3</td>
<td>Technique: Wheel. Paste: 5YR 5/4 &quot;reddish brown&quot;; few small limestone, some very small sand; no core; hard; Surface: (Interior): 5YR 6/2 &quot;pinkish gray&quot;, (Exterior): 5YR 6/6 &quot;reddish yellow&quot;, self slip. (76)</td>
</tr>
<tr>
<td>13</td>
<td>Jug</td>
<td>23</td>
<td>283</td>
<td>IV.F7.83.1</td>
<td>Technique: Wheel. Paste: 10YR 5/4 &quot;yellowish brown&quot;; few very small sand, few small to large limestone; no core; hard; Surface: (Interior): 10YR 7/3 &quot;very pale brown&quot;, (Exterior): as paste, slip: 10YR 7/2 &quot;light gray&quot;. (5)</td>
</tr>
<tr>
<td>Plate #</td>
<td>Pottery Type</td>
<td>Class</td>
<td>Weight(g)</td>
<td>Vessel #</td>
<td>Description</td>
</tr>
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</tr>
<tr>
<td>14</td>
<td>Strainer</td>
<td>120</td>
<td>695</td>
<td>IV.F.747/D.1A</td>
<td>Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; few small limestone, few small to medium ceramic; light gray core; hard; Surface: (Interior): as paste, 7.5YR 5/3 &quot;brown&quot;, (Exterior): 2.5YR 5/4 &quot;reddish brown&quot;, as paste. (22)</td>
</tr>
<tr>
<td>15</td>
<td>Funnel</td>
<td>121</td>
<td>478</td>
<td>IV.F.747/D.2</td>
<td>Technique: Wheel. Paste: 5YR 6/6 &quot;reddish yellow&quot;; few small limestone; gray core; hard; Surface: (Interior): as paste, (Exterior) as paste. (22)</td>
</tr>
<tr>
<td>16</td>
<td>Lmk Jar</td>
<td>4</td>
<td>10840</td>
<td>IV.F.747/B.2</td>
<td>Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; few small limestone, some small ceramic; dark gray core; hard; Surface: (Interior): 7.5YR 6/3 &quot;light brown&quot;, (Exterior): 5YR &quot;reddish brown&quot;. (102)</td>
</tr>
<tr>
<td>17</td>
<td>Storage Jar</td>
<td>19</td>
<td>2665</td>
<td>IV.F.770.1</td>
<td>Technique: Wheel. Paste: 10YR 3/2 &quot;very dark grayish brown&quot;; few small to medium ceramic, few very small sand, few small to medium limestone; gray core; hard; Surface: (Interior): 10YR &quot;very pale brown&quot;, (Exterior): 10YR 6/2 &quot;light brownish gray&quot;. (114)</td>
</tr>
<tr>
<td>18</td>
<td>Pitcher</td>
<td>21</td>
<td>788</td>
<td>IV.F.769.1</td>
<td>Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; some very small to medium limestone; light gray core; hard; Surface: (Interior): 7.5YR 7/2 &quot;pinkish gray&quot;, (Exterior): 10R 6/6 &quot;light red, 7.5YR 7/3 &quot;pink&quot; slip. (18)</td>
</tr>
<tr>
<td>19</td>
<td>Lmk Jar</td>
<td>4</td>
<td>5670</td>
<td>IV.F.775/C.1</td>
<td>Technique: Wheel. Paste: 5YR 6/4 &quot;light reddish brown&quot;; some small limestone, few medium to large limestone, few very small sand; dark gray core; hard; Surface: (Interior): 7.5YR 5/1 &quot;gray&quot;, (Exterior): 2.5YR 6/4 &quot;light reddish gray&quot;, slip. (195)</td>
</tr>
<tr>
<td>20</td>
<td>Storage Jar</td>
<td>11</td>
<td>5953</td>
<td>IV.F.757.1</td>
<td>Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; some medium ceramic, few small limestone, some small sand; gray core; hard; Surface: (Interior): as paste, (Exterior): 5YR 6/6 &quot;reddish yellow&quot;, slip: 10YR 7/3 &quot;very pale brown&quot;. (82)</td>
</tr>
<tr>
<td>21</td>
<td>Lmk Jar</td>
<td>4</td>
<td>8306</td>
<td>IV.F.766/A.2</td>
<td>Technique: Wheel. Paste: 2.5YR 6/8 &quot;light red&quot;;few small to medium limestone, few very small sand; gray core; hard; Surface: (Interior): 5YR 7/1 &quot;light gray&quot;, (Exterior): 2.5YR 5/6 &quot;red&quot;. (123)</td>
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<tr>
<td>22</td>
<td>Storage Jar</td>
<td>19</td>
<td>3941</td>
<td>IV.F.767.3</td>
<td>Technique: Wheel. Paste: 7.5YR 5/2 &quot;brown&quot;; few very small sand, few small limestone, few small wadi gravel; light gray core; hard; Surface: (Interior): 7.5YR 8/2 &quot;pinkish white&quot;, (Exterior): 10YR 6/1 &quot;gray&quot;, (124)</td>
</tr>
<tr>
<td>23</td>
<td>Lmk Jar</td>
<td>4</td>
<td>7940</td>
<td>IV.F.765/A.1</td>
<td>Technique: Wheel. Paste: 2.5YR 6/6 &quot;light red&quot;; few small limestone, some medium ceramic; dark gray core; hard; Surface: (Interior): 5YR 5/1 &quot;gray&quot;, (Exterior): slip: 2.5YR 5/3 &quot;reddish brown&quot;, bottom half: 5YR 4/2 &quot;dark reddish gray&quot;. (130)</td>
</tr>
<tr>
<td>24</td>
<td>Storage Jar</td>
<td>19</td>
<td>7314</td>
<td>IV.F.737.2</td>
<td>Technique: Wheel. Paste: 5YR 7/4 &quot;pink&quot;; few small to medium organics, few very small sand, few small to medium limestone; few small to medium wad gravel; light gray core; hard; Surface: (Interior): 10YR 7/3 &quot;very pale brown&quot;, (Exterior): 7.5YR 6/4 &quot;light brown&quot;. (110)</td>
</tr>
</tbody>
</table>
Chapter IV

Ethnographic and Ethnoarchaeological Data:

Houses and Social Structure

This chapter discusses the ethnographic and ethnoarchaeological data used to supplement and interpret the archaeological data from the Field IV pillared dwelling described in Chapter III. A brief discussion of how ethnographic and ethnoarchaeological data are approached in the dissertation, both direct and indirect, are outlined. The data used here were collected in rural Arab Palestinian villages of the late 19th and early-mid 20th centuries C.E. and small pseudonymous mid-late 20th century C.E. rural villages from western Iran. These data are used to establish links between material culture on the one hand, and behaviors, activity areas, and social structure on the other. Indirect ethnoarchaeological data from western Iran are supplemented by ethnographic data from the southern Levant to provide useful observations of material culture in active use by rural village inhabitants of the Southwest Asia. House construction and components, and material culture items functioning in domestic space and activities will be described. These descriptions shed light on similarly occurring items of materials culture excavated from the pillared dwelling at Tell Halif. Correlations between the two sets of data are strengthened by similar weather conditions, building materials, building methods, and modes of subsistence carried out in both areas. The data are used to reconstruct various
activities performed by the Iron II inhabitants of the pillared dwelling at Tel Halif based on the excavated material culture items’ function. If the space in the pillared dwelling at Tel Halif is found to have been used similarly to the space in the more recent villages of Palestine and rural Iran, then similar types of subsistence strategies and political organizations can be inferred of both. Additionally, direct ethnographic observations of the Palestinian villages employed here include detailed descriptions of the social structure commonly observed there and throughout much of the Arab Middle East. Based on similarities in the organization of space in the pillared dwelling and Arab household compounds, it is proposed that a similar social structure also existed in the two units. The resulting construct is identified as the archaeological household. Before the archaeological household is identified, the use of ethnographic and ethnoarchaeological data for interpreting archaeological data are discussed briefly.

Ethnographic and ethnoarchaeological research have the ability to aid greatly in the understanding of archaeological data. Ethnographic data, that describe a society’s behaviors and beliefs, are used by archaeologists to provide analogical information for interpreting the past. Ethnoarchaeology is used here to describe ethnographic work was undertaken, or used, to provide potentially useful data/materials for analogs to aid in the identification and interpretation of archaeological materials and data based on insights gained from the study of recent or contemporary observations (see e.g. Ascher, 1961, 1968; Hodder, 1982; Gould and Watson, 1982; Kramer, 1979, 1982; Watson, 1979; Wilk, 1983). S. Kent labels this type of work archaeological ethnography, or archaeologically oriented ethnography (Kent, 1987: 37). She reserves use of the term ethnoarchaeology
for a type of research with different goals. For her the term “ethnoarchaeology” is used for a type of research whose goals “are to formulate and test archaeologically oriented and/or derive methods, hypotheses, models, and theories with ethnographic data” (Kent, 1987: 37). Some examples of this type of work include Binford (1982), Kent (1984), and Yellen (1977). However, here ethnoarchaeology will simply refer to the use of ethnographic data for the interpretation of archeologically retrieved data.

Information learned from recent and modern cultures can provide rich data and cultural information with which to supplement the often insufficient information provided by archaeological excavations (and biblical texts). The spatial organization of activities in the ethnographic or “systemic” context can underlie the organization of debris deposited in the archaeological record (Brooks and Yellen, 1987: 63). Therefore, it works well as a point of departure for testing identifications of cultural material and behavior by providing analogical materials for archeological interpretations. Direct ethnographic data collected from cultures spatially and/or temporally near the study group are probably the most useful, but indirect or cross cultural ethnographic comparisons also are useful.

Cross cultural comparisons can demonstrate patterns intelligible across cultural lines highlighting those things that one culture shares as common with other cultures thus providing plausible explanations of observed similarities. On the other hand, such comparisons can draw attention to aspects of culture that are particular to only one group, thus demonstrating how one group differed from others. What are termed relational analogies (Hodder, 1982; Wylie, 1985) or direct ethnographic observation, however, are
Particularly useful for comparison with archaeological data (and biblical textual information) are contemporary settlements located in the same region as, and organized similarly to the archaeological settlement under investigation. These make good comparisons because they generally operate under the same ecological constraints and have the same resources available for exploitation as did the ancient inhabitants that preceded them. For these reasons the Arab villages of rural Palestine dating to the late 19th and early to mid 20th centuries C.E. are used for comparison in this study. Many of these villages follow subsistence strategies similar to those of ancient Israel (during the Iron I and II), including dry farming that makes use of valley floors and terraced hillsides and animal husbandry. Furthermore, their social structure (along with many other contemporary societies in the Near East), in many respects is virtually identical to that of biblical social structure described in the next chapter. The rural Arab villages of Palestine should provide excellent data and information for comparison with the data from Iron II Tel Halif.

To supplement the ethnographic data from the southern Levant, ethnoarchaeological data collected from small, rural egalitarian villages in western Iran by Watson (1979), Kramer (1979, 1982a, 1982b) and Horne (1982, 1991) are drawn upon. While these studies are useful for reconstructing ancient social systems, their use of ethnographic data and information collected from the perspective of the archaeologists' needs, including greater concern for aspects of the material culture complex, provide many insightful observations linking material culture with the activities of everyday life.
in a village. As such they provide a means of linking past material culture with the behaviors which produced them, demonstrating how village social organization may be reflected in the material environment. Thus, these studies provide a useful test for “goodness of fit” between archaeological data and its subsequent interpretation (see Weinstein, 1973: 276). Their work provided data very useful for analysis of the Iron II pillared dwelling and is described in greater detail below.

Horne, Kramer, and Watson provide a wealth of data concerning village dwellings and ways in which these may reflect social organization at its lower levels (i.e. family, household, coresident group, or similar entity). Ethnoarchaeological data collected by Watson in Hasanabad (Watson, 1979), Kramer in Aliabad (Kramer, 1982a; 1982b), and Horne in Baghestan (Horne, 1982) (all pseudonymuous village names) describe dwelling construction and function as well as the social structure of the villages’ inhabitants. Comparison of these data with those collected from Iron II pillared dwellings hopefully leads to a better understanding of the organization and function of space in the latter and how these reflect social organization. Where useful, ethnographic data from other sources are used to supplement those from the western Iranian villages.

**House Identification, Construction, and Function**

At Hasanabad and Aliabad domestic structures consisted of isolated compounds formed by a number of rooms or buildings organized around a bounded courtyard. Room types included living rooms, entry halls, utility rooms, store rooms, stables, and kitchens. They were occupied by near kin relatives (patri-virilocal) though the co-residing groups
varied in size and composition (Kramer, 1982b: 21). Households were organized around extended families. Baghestan’s residents also resided in compounds, but it was very common for them to own rooms (0 -6) randomly dispersed throughout the village (Horne, 1982: 677). Here, a nuclear family made up an individual household and compounds consisted of a number of households.

Dwelling compounds varied greatly in size (43 - 1300 m square at Aliabad and 18.5 - 134.8 m square at Baghestan) and number of rooms (range = 2-12). However the median size of a compound at Aliabad was 200 m square and a little smaller at Hasanabad (see LeBlanc, 1971). The median number of rooms per compound was five for both Hasanabad and Aliabad. Each nuclear family occupied a separate living room and other rooms may have been included as part of the living domain, including utility rooms and foyers. Both Kramer (1982a) and Horne (1982, 1991) warn against a direct correlation between house size and wealth (see also Deetz for quality of objects: 1982: 721). A better barometer is indicated in the total number of rooms (Horne, 1991: 49) and overall size of the compound and not the size of the dwelling which is similar for both landed and landless (Kramer, 1982a). Extra rooms and space were not luxury items but tools of production for which the wealthy had a greater need (Horne, 1991: 49). The number of individuals occupying a single living domain at Aliabad ranged from one to fifteen with a mean of six. Kramer determined nine square m of roofed dwelling space per individual at Aliabad which is very similar to Naroll’s constant of 10 square m of roofed dwelling space per individual (Naroll, 1962). LeBlanc’s constant of 21 square m of total roofed space per individual utilized Hasanabad data to determine this figure.
At Aliabad compounds housing landed residents tended to have more inhabitants than those of the landless (Kramer, 1982a: 668). This fits well with Netting's observation that wealthier families generally tend to be larger (Netting, 1982: 641-662).

Construction

Observations of the various components of dwellings, including walls, floors, and ceilings, demonstrate many similarities to archaeological examples from the Iron II southern Levant. Walls at Hasanabad are similar to adobe composed of sun-dried mud and chaff (but not bricks) laid in courses of ca. .50 m. At their base walls measure approximately one meter wide, narrowing as they near their completed height (ca. 2-2.5 m). Both the interior and exterior surfaces of walls are covered with a mud chaff plaster (Watson 1979: 119-120). In Palestine in the earlier half of this century, Canaan described walls built of plain sun-dried mud brick on stone and lime mortar foundations as common (Canaan, 1933: 29-30). Structural walls generally were .40 - .50 m wide and partition walls were thinner, generally .30 m wide (Canaan, 1933: 30).

Floor treatment ranges from untreated stables to well plastered living rooms and correlates well with room function. Living rooms are plastered with mud-chaff plaster at Aliabad (Kramer, 1982b) and also at Hasanabad, which sometimes is covered with white plaster laid with a roof roller (Watson, 1979: 121).

Walls supported ceilings and roofs of various heights based on room function. Typically ceilings were higher in living rooms and kitchens (2.0 - 2.6 m at Aliabad...
[Kramer, 1982b: 104] and ca. 2.55 for Hasanabad [Watson, 1979: figs. 5.8 - 5.27]) and lower for stables (Watson, 1979: 160). Their construction required the laying of beams and lintels across support walls, covered by slats or poles, in turn covered by a mud-chaff plaster covering. Roof maintenance required regular compacting and the periodic application of additional layers of mud plaster. Kramer identified three roof rollers at Aliabad similar to those known in archaeological contexts from sites in the southern Levant (also for Hasanabad: Watson, 1979: 121). Roofs generally were sturdy enough to allow their use in various activities or serve as a foundation for additional stories. This information fits well what little is known of the Palestinian dwelling's low ceiling heights and thick construction. In Palestinian villages the roof is used for a number of activities including as a protected surface for drying food stuffs, various domestic activities, and resting or sleeping during the warmer summer nights (Hirschfeld, 1995: 131). For the latter purpose, booths were sometimes constructed on the roofs (Canaan, 1933: Pl. IV).

Access to the roof was gained by a ladder or staircase. When houses contained an additional story the upper one usually was devoted to human habitation and light storage. This was the case in Aliabad where half of the houses had two stories (Kramer, 1982a) but no houses carried additional stories in Hasanabad (Watson, 1979).

These data and observations regarding dwelling construction provide useful information for understanding the pillared dwelling. Different floor treatments can lead to better understandings of room activities and the low ceilings observed in stables may suggest the low ceilinged side rooms in pillared dwellings functioned as domestic stables. Ethnoarchaeological observations detailing room functions also are useful.
Components of Compounds

The various components of dwellings where domestic activities took place included rooms associated with the living domain, storage facilities, stables, kitchens, and courtyards. The living domain included living rooms, some light storage rooms, utility rooms, and in some larger dwellings, entrance halls or foyers. Each nuclear family had its own living room where they ate, slept, did indoor work (craft work, etc.), some cooking, and entertained (Watson, 1979; Kramer, 1982b; Horne, 1982). The living room usually contained a central hearth, either rectangular and stone-lined or circular and plastered. Living rooms were viewed as men’s rooms at Aliabad (Kramer, 1982) but women’s rooms at Hasanabad (Watson, 1979). The mean width of the living rooms was 2.78 for 7 illustrated rooms at Aliabad (Kramer, 1982b: figs. 4.6, 4.7) and 3.02 m for 25 illustrated rooms at Hasanabad (Watson, 1979). This is almost a meter wider than the mean for broad rooms in Iron II pillared dwellings.

Large roofed areas in dwellings are required for storage and it is not rare for half of a dwelling’s roofed area to be consumed in this activity. Substantial room was needed for wheat, barley, legumes (Kramer, 1982: 34), dung cakes, wood storage, dried fodder (Hirschfeld, 1995: 280), straw/chaff, furniture, equipment, and tools, and one could add wine and oil to this list for Iron II dwellings. Grain and milled flour was sometimes stored in sacks or large mud plastered wicker baskets, but most often in mud bins or chests raised on short legs and located on the ground floor (Watson, 1979: 295; Kramer, 1982b: 100, 102, 105). An average family of five consumes 1800 kg or 66 bushels of wheat (ca. 300 kg for seed) assuming an 80% extraction rate and 1080 kg or 49 bushels of
barley (considered animal feed or cash crop and human food in extreme conditions only) (Watson, 1979: 291). These figures demonstrate the amount of space consumed in storage activities. Additional roofed areas were required for stabling animals.

Domestic stables were common in virtually all rural settlements. Dalman identified numbers of stables located on the ground floors of vaulted and pillared houses in the villages of early 20th century Palestine (Dalman, 1942: pls 31-32 and 36B; see also Hirschfeld, 1995: 132, 158, 165). Houses in densely settled towns (e.g. fortified towns where space was at a premium) typically devoted the ground floors of dwellings to stabling of herds and flocks, and heavy storage (Hirschfeld, 1995: passim). This pattern is seen throughout the eastern Mediterranean. In addition to saving space, it has the added advantage (though not in the olfactory sense) of utilizing the heat produced by the animals’ bodies to warm the house during the winter (Stager, 1985: 12). At Hasanabad and Aliabad stables occupied buildings around the courtyard separate from the living domain. Subterranean stables also were observed (Watson, 1979: 160-161). The floors of stables were characteristically unfinished, and covered with accumulations of dung and decomposing fodder which was occasionally cleaned out for fuel (Kramer, 1982b: 106).

One kitchen per compound was identified at Aliabad, usually serving several living rooms (Kramer, 1982b), and cooking activities took place indoors during the winter months. Kramer has noted that the delineation of cooking areas does not correlate well with households (Kramer, 1982a). Cooking activities often took place at accessible locations inside the courtyard.

A number of features were characteristic of most courtyards in the villages of
western Iran and included animal pens, food preparation areas (ovens, hearths, platforms), horizontal looms, and multi-functional platforms (Watson, 1979; Kramer, 1982; Horne, 1982). Many of these same items were found in the side and central long rooms of the pillared dwelling. Animals also were allowed to move around courtyards at various times when not being stabled.

These are the various components of dwellings where domestic activities took place. They most commonly consisted of rooms associated with the living domain, storage facilities, stables, kitchens, and courtyards. Additional light storage rooms, utility rooms, and in some larger dwellings, entrance halls or foyers are known also. Each nuclear family had its own living room where they ate, slept, and did indoor work (craft work, etc.), and this room usually contained a central hearth, either rectangular and stone-lined or circular and plastered.

Many parallels can already be identified between these Arab dwellings and the pillared dwelling of Field IV. However, before discussing the similarities in features and the organization of space, a review of the social structure of the inhabitants of these dwellings is undertaken. Excellent information was recorded by early ethnographers and explorers concerning the social structure of the Arab villages of rural Palestine dating to the late 19th and early 20th centuries C.E. Many of these villages utilized subsistence strategies similar to those of ancient Israel making them useful for comparative and analogical study.
Village Social Structure

Study of the 19th - 20th century rural villages in Palestine provide excellent comparative data with which to supplement nebulous information yielded by archaeological and textual study. The inhabitants of the rural traditional Arab villages of Palestine generally were, and in many cases still are, organized into a patrilineal, patrilocal, and endogamous society where transmission is partible. Their primary mode of subsistence was plant and animal husbandry and most inhabitants fell into the “peasant” category (Wolf, 1966). There were generally three tiers of family organization in which a member found himself, each spiraling upwards in ever widening kinship relations. The primary social group with which a village member identified him/herself was the multiple family household (za‘ila in Arabic), referred to as the “joint family” by Tannous (Tannous, 1944: 537; also described in Lutfiyya, 1966: 142; and Grant, 1907: 53). It is headed by the oldest living male member of a family. That life centered around the extended family is readily apparent in Lutfiyya’s description of the three types of family units found in Baytin, a village north of Jerusalem built on the ruins of ancient Bethel.

Based on observations at Baytin and other rural Palestinian villages, Lutfiyya (following Tannous, 1944) discusses three types of family units found in the rural areas of

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31 In a personal conversation with David Schloan in 1999, he noted from his own research into households of the past, the striking “commonness” of household organization of the extended, patrilocal/patrilineal type throughout the eastern littoral of the Mediterranean from the earliest times of recorded household documentation to the very recent past – almost to the exclusion of other types of organization.
the Arab Middle East: the nuclear unit, the joint family, and the *humla*, or "clan" (Lutfiyya, 1966: 142-143). The nuclear unit, which includes a father, mother, and their offspring, is the least significant social unit in the culture of the Arab village. Its main purpose is the biological function of reproduction. It is rarely economically or socially independent (except in the more westernized families) and always subordinate to the larger and more important *za'ila* (Lutfiyya, 1966: 142).

The *za'ila* as described by Lutfiyya is made up of an extended family:

"It consists of the father, mother, and unwed children as well as the wedded sons and their wives and children, unwed paternal aunts, and sometimes even unwed paternal uncles. In short, this unit is composed of blood relatives plus women who were brought into the kinship through marriage. Large as it may be, this unit tends to occupy one dwelling or a compound of dwellings built close together often attached to one another. It is an economic as well as a social unit and is governed by the grandfather or the eldest male. The joint family normally dissolves upon the death of the grandfather. The land, which until then had been held by the grandfather, is divided among the heirs, and the male children separately, each to become the nucleus of a new *za'ila*" (Lutfiyya, 1966: 142-143).

Marriage was often endogamous but not exclusively (Lutfiyya, 1966: 129-130; Grant, 1907: 53). Paternal cousins were preferred but the search could widen outside of the *za'ila*. The *za'ila* compares well with "household" as defined in this research.

The third family unit, the *hamula*, consists of all those who claim descent from the same paternal ancestor, regardless of whether or not they live in the same village. It is made up of several joint families, and two *hamulas* normally occupy one village (Lutfiyya, 1966: 143). When marriage takes place between *hamulas* the new family moves into the dwelling of the husband's family, usually receiving their own living room.

Ethnographies such as those by Lutfiyya and Tannous describing the rural villages
of Palestine yield excellent information about the social organization of rural villagers. Most of this was observed before wide scale exposure to different (especially Western) cultures. Additionally, the ethnoarchaeological work of Horne, Kramer, and Watson provide insight into how households were organized and the patterns this organization leave in the material culture. For this reason, and reasons previously outlined, these studies provide valuable information to supplement and interpret the archaeological data from the Field IV pillared dwelling.

A great deal of the information learned from the ethnographic and ethnoarchaeological data outlined above is useful for comparison with the archaeological and biblical information outlined in Chapters II and III. It also is used for interpreting the archaeological data from Field IV at Tell Halif.

**Identifying the Archaeological Household**

In reviewing and comparing the archaeological data with the ethnographic and ethnoarchaeological data, the Iron II dwellings in general, as well as Tel Halif specifically, are more similar to Aliabad and Hasanabad than Baghestan. In the Iron II southern Levant, localized holdings seem to be the case, at least where broad archaeological exposures allow for the analysis of flow patterns (e.g. Tell Beit Mirsim - Albright, 1943; Beer Sheva - Aharoni, 1973; Tell en-Nasbeh - Zorn, 1992). The regularity of the pillared dwelling also supports this conclusion. In Baghestan, nuclear family units possessed spread out holdings. In Aliabd and Hasanabad extended households occupied a number of buildings surrounding a courtyard. The pillared
dwelling is built of the same materials in much the same way as the buildings described at villages in Iran and the southern Levant. One would suspect similar building techniques for building components that were not regularly observed archaeologically – for example, roofs and ceilings. The one piece of ceiling material observed resting on the installation in Area H is very similar to materials described by Kramer (1982a) and Watson (1979). The space included in the household enclosure at the village was greater than that of the pillared dwelling of the southern Levant.

The median size of pillared dwellings in Iron II Palestine (40 - 80 m square) is smaller than the median size of structures at Aliabad and Hasanabad. This may be explained by the greater horizontal spacial limitations in the settlement at Tel Halif due to the nature of its setting atop a small mound constricted by a fortification system. This spatial restriction points to heavy use of second stories as well. However, in spite of the small size of the pillared dwelling, it has all the components present in the courtyard compounds observed at Aliabad, Hasanabad, and Baghestan. These include living domain (Room 2, Room 3: Area D), storage facilities (Room 1, Room 2: Area B), stables (Room 4, Area G), kitchens (Room 1, Rooms 4 and 5: Areas F, H, I, J, K, and L) and courtyards (Rooms 4 and 5: Area M and other spaces) (see Fig. 5). The living domain included living rooms, some light storage rooms (Room 2: Area B), utility rooms (Room 3: Area E), and in some larger dwellings, entrance halls or foyers (none identified). In addition, items observed in courtyards of the ethnographic examples all occur in the pillared dwelling – mostly in the long rooms. These include animal pens (Area G), food
prep areas (ovens – Areas I and L, hearths – Area I, platforms – Areas H), horizontal looms (vertical loom in Room 3), and multi-functional platforms (Areas F, H, M, J?). Nothing was found reminiscent of mud bins or chests for grain storage unless Area J was used in this activity. However, five pithoi were located in the dwelling. The importance for storage is evidenced by a large number of storage jars, even if the jars in Area M are not included (see Fig. 8). This also matches the ethnographic data well as large spaces consumed in storage also were shown to be significant (Watson, 1979; Kramer, 1982). The parallels for the organization of the activity areas between the ethnographic data and the archaeological data is striking. I would suggest, therefore, that this reflects a similar household organization.

I would suggest that the pillared dwelling was perhaps occupied by a small extended family which included the father, mother, and unwed children as well as the wedded sons and their wives and children, and possibly even unwed paternal aunts, and sometimes even unwed paternal uncles. It also is possible that slaves were brought into the dwelling. Two living rooms were suggested for the pillared dwelling (Room 2, Room 3: Area D), and it is possible that more rooms of a similar room were present in a second floor. Even if this is not the case, 79 square meters of interior floor space provides a large living area (if the hole floor plan was covered). As is the dominant pattern in the Middle East, the group probably would have been patrilineal, patrilocal and sons would have brought wives into the pillared dwelling. Marriage was most likely endogamous and inheritance partible as is common in extended households that are sedentary agriculturalists practicing dry farming (Netting, 1982; Netting et al., 1984). When
reconstructed in this manner, the occupants of the pillared dwelling – the archaeological household – resemble strikingly the Arab extended household or the za'ila.

However, it is possible to know more about this archaeological household. Regarding economics, the head of the archaeological household probably was a vintner who owned his own fields. This can be suggested by the bullae found in Area M, if they belong to the head of the household and were not brought in from elsewhere. The practice of growing grapes in the southern Levant often involved training the vines to climb trees (e.g. olive trees), poles, or some other type of trellis (Borowski, 1988). This allowed the planting of an additional crop on the ground. It is possible victuals produced in this manner, along side the grapes, account for the presence of remains of these materials in the microartifact samples. Other remains would have been bought or bartered. One food that certainly was procured from the outside was saltwater fish, probably was obtained dried or salted through trade with the Mediterranean coastal regions. Commodities found in the Tel Halif pillared dwelling that may have been traded for fish include wine, grapes, or perhaps textiles if a cottage industry was active as proposed by Friend (1997).

This reconstruction of the archaeological household, based on observations and data from ethnographic and ethnoarchaeological investigations, is quite detailed. However, it fits the available data and is consistent with the pater familias known so well in the Middle East. Next, it is investigated whether or not the archaeological household is equally similar to the Iron II household reconstructed from biblical texts.
Chapter V

BIBLICAL TEXTS, THE DWELLING, AND SOCIAL STRUCTURE

This chapter compares the archaeological/ethnographic interpretations of Iron II domestic space and the social organization of the inhabitants of this space with information gleaned from biblical texts regarding dwelling construction, layout, function, and the social organization of the Iron II peoples of Judah. However, before this is undertaken, a discussion of the use of biblical texts for historical reconstructions of ancient Israel and Judah addresses concerns raised recently by a number of biblical scholars with respect to the usefulness of biblical texts for historical reconstructions of Syria-Palestine during the Iron II period. Once these concerns are addressed, a discussion follows of the biblically-based, three-part social structure of ancient Israel as understood in the “Folk Model” for the Iron I period developed by N. Gottwald (1979) and built upon later by L. Stager (1985). From this model particular attention is given the unit termed the “bet-‘ay” – often translated as an “extended household.” While the “Folk Model” was developed for the Iron I (12th -10th centuries B.C.E.), a period earlier than the one of interest in the dissertation (late 8th century B.C.E.), many scholars have proposed that a slowly changing but similar social structure continued into the Iron II (Blenkinsopp, 1997; Meyers, 1997; Stager, 1985; Wright, 1992). So biblical texts that appear to shed light on the structure and organization of the Iron Age household are studied. The
pertinent biblical textual information learned from this study is juxtaposed with that from ethnographic and ethnoarchaeological reconstructions of Iron II Tel Halif discussed in Chapter IV. This juxtaposition is useful in two ways: first to see how well the biblical data fit the 8th century B.C.E. archaeological record of Tel Halif as reconstructed through ethnographic and ethnoarchaeological analyses to see if conciliation or resolution is necessary between these disparate and sometimes dialectical sources of data and, second, to see if changes in social structure from the Iron I to the Iron II hinted at in biblical texts can be observed using the archaeological data from Tel Halif. The archaeological record is particularly useful for the latter as it is well equipped for observing societal change through time. Regarding the former, if ethnographic and ethnoarchaeological reconstructions of Iron II society and biblical reconstructions demonstrate affinities then this juxtaposition also helps to achieve a more comprehensive view of domestic activities, domestic dwellings, and the social organization of the inhabitants of 8th century B.C.E. Tel Halif. At the same time perhaps greater insight is gained into the usefulness of biblical texts for these kinds of reconstructions. But all of this is a moot point if biblical data cannot be brought to bear on historical issues.

Biblical Texts and Historical Reconstructions

In the premier issue of Near Eastern Archaeology, the recently renamed, semi-popular periodical dedicated to the study of the ancient Near East, an eminent senior scholar wrote that some of the latest trends in the field of biblical studies "pose a threat to biblical studies, to Syro-Palestinian archeology, to theological and religious studies, to the
life of synagogue and church, and even to the political situation in the Middle East” (Dever, 1998: 30). If this statement is mere hyperbole, then those responsible for these trends can safely be “ignored as dilettantes” (Rainey, 1994: 70). However, if this statement is accurate it would appear that several disciplines central to the study of the ancient Near East are at a point of crisis. In determining the existence or severity of a crisis in the fields mentioned above, it becomes important to know who or what is responsible for posing the threat and to determine its substantiveness.

Those responsible for this perceived threat are a remarkably vocal and literarily prolific group of scholars, mostly of a European tradition, who severely criticize and attack the ability of modern scholars to use biblical texts to discuss an ‘ancient’ or ‘biblical’ Israel with any bearing on what an actual Israel may have been in the past (esp. the Iron Age: 1200 - 586 B.C.E.). While there are different stances among these scholars (mostly in degree), the majority of them believe in a minimum of historically useful data preserved in the texts and trust even less in anyone’s ability to determine what in these texts was historical (apart from themselves). These scholars have been labeled by “mainstream” source-critical (historically-based) biblical scholars, historical geographers, and archaeologists as historical minimalists (Hoffmeier, 1995: 22), revisionists (Dever, 1996c: 35; 1998: 39; cf. 1996a; 1996b; 1997e), deconstructionists (Rainey, 1994: 47; 32

Near Eastern history or history of the ancient Near East was left out of this list even though it potentially has the most to lose in the face of the “revisionist” assault. However, it seems that the underlying premise for Dever’s article is that our ability to write history and to get at a knowable past are exactly what are being undermined by the assault.
Dever 1998: 41), post-modernists (Dever, 1998: 40-41), nihilists (Dever, 1996: 35), nominalists (Patrick, 1998: 117), Pyrrhonists (Halpern, 1988: 3-6), solipsists (Patrick, 1989: 117) and probably a few other “ists” that I have failed to mention. These “ists” most often include, in addition to a few others, F. Cryer (1994), P. Davies (1992; 1995; 1997;), D. Edelman (1991), N. P. Lemche (1985; 1994; 1997a; 1997b; 1998), T. Thompson (1987; 1992; 1996; 1997a; 1997b; 1997c; 1999), J. Van Seters (1983), K. Whitelam (1994, 1996a; 1996b), and to a lesser degree G. Ahlstrom (1991; 1993a; 1993b) G. Garbini (1988), N. Silberman (1982; 1989). While these scholars along with others of their ilk do not speak with one voice, common in their writings is the call for an alternative method of biblical study where “no search is needed to find Israel’s ancestors, its history, its religion, its deity and its hopes” (Davies, 1992: 12). In fact, an attempt is made to debunk or deconstruct most interpretations of the past that have this as a goal. It is believed by these revisionists that any attempt to reconstruct the past is so heavily burdened with the ideological and socio-political baggage of the modern scholar, that it (the history) can have little historical accuracy and no bearing on any past reality. Many scholars (e.g. Dever, Hoffmeier, Rainey) believe that revisionist attempts to re-write the history of ancient Palestine echo deconstructionist trends prevalent in some fields of the post-modern academic community (e.g. English and literary criticism) and it is in this

The term “revisionist” is used in the dissertation when referring to the group of scholars discussed here. While not all included in this group would agree with the term, it (along with perhaps minimalist) is used by scholars from both sides of the debate in a less acrimonious manner than other terms and it attempts to identify a stance more than to serve as a pejorative to be cleverly wielded about in a heated, acrimonious debate.
environment that the debunking of history is undertaken. However, the revisionists seek to distance themselves from such terms as deconstruction (see e.g. Davies, Thompson, Lemche in the interview for BAR; see Shanks, 1995). Davies, for example, says (1995: 16) he would not use the term 'deconstruction' to describe his 'method' of scholarly inquiry and would reserve this term for the literary philosophical approach to texts associated largely with Jacques Derrida. However, when one looks at the deconstruction of Derrida, many of its tenets appear in the writings of the revisionist scholars.

Deconstruction as associated with Derrida is a philosophical movement heavily influenced by Heidegger's philosophy and structuralism (Richmond, 1995: 180). It is at its basis a 'meta-theory', or a theoretical investigation and critique of all available theories of meaning and models of understanding which sets the "metamorphic insignificance, the arbitrariness of meaning, always open to deferral or to vacancy, against the authority of Logos, of what deconstruction calls 'the logocentric order'" (Steiner, 1989: 121). It would externalize and hold for demolition the epistemological assumptions implicit or explicit in judgements of aesthetic value and in interpretations of sense (Steiner, 1989: 116). Its proponents suppose this on the grounds that all texts contain psychological evasions as well as hidden ideological, political, and didactic power relations which so cloud the meaning and intent of a text's author that its original intent is unknowable. Not only does the psyche of the original author cloud meaning, the modern interpreter of a text brings his/her own evasions and relations conditioned by his/her own environment that also distort, complicate, and obscure any real or perceived understanding of the meaning of a text. Consequently, the presumption of a text's
insured content, or what G. Steiner (1989: 121) calls “cognitive ballast,” is challenged, thereby rendering readings as misreadings and interpretation as misinterpretation. According to this stance, a text cannot be “a sequence of words, of syntactic forms, communicating any single, decided meaning (or even constellation of meanings) ” (Steiner, 1989: 120). Therefore, there can be no inherent meaning derived from a text, only that supplied by us as researchers, and this may have nothing to do with a text’s original or ‘real’ meaning – if the text indeed had any real meaning to begin with, something the more radical deconstructionists would hold up for debate. So the inescapable conclusion is that the endeavor to perceive meaning from texts is pointless and using them for historical reconstruction is a waste of time at best and a bankrupt endeavor at worst. Thus, this stance, when applied to the analysis of ancient texts, as in biblical studies, robs them (texts) of any recoverable meaning by rendering it (meaning) arbitrary and indeterminate. This radical “Post-Modern” deconstructionist stance can be seen in many of the writings of the revisionists.

Derrida intended deconstruction as “neither an analytical nor a critical tool; neither a method, nor an operation, nor an act performed on a text by a subject” (Richmond, 1995: 180). However, it has become a tool and a method used in the study of texts, especially in the form of the “New Literary Criticism”. It recently has made inroads into biblical studies (McKenzie and Haynes, 1993). Here its proponents, which include many of the revisionists previously listed, would have it replace the reigning paradigm – the historically based exegesis and textual criticism that has dominated biblical studies for more than a century. Scholars following this paradigm sought, and continue to seek, to
place the biblical text and its described events and theological constructs in the greater historical context of the ancient Near East through textual criticism and the study of history, archaeology, anthropology, philology, epigraphy, paleography, historical geography as well as other avenues. Its proponents have worked ambitiously and, most often conscientiously, to write critical histories of Ancient Israel and its neighbors and identify its more historical characters and events while striving to separate them from legendary, mythological and/or literary creations or constructs. To the revisionists, however, "that genre [of writing histories of ancient Israel] is probably obsolete" (Davies, 1992: 11). Revisionists believe that one simply cannot know what is historical in the biblical text because texts have no knowable intrinsic meaning. This certainly echoes deconstruction, as does Davies when he states "all writing deceives, of necessity, in the sense that it tends to represent as real something that is not[, t]exts cannot reproduce reality except as a textual artifact, crafted by rhetoric and limited by the boundaries of language" (Davies, 1992: 15). Thus, the search for a historical context for biblical events becomes pointless and the historically-based exegesis becomes an obsolete methodology.

The revisionists seek also to undermine the very foundation of the historical exegesis, setting up for demolition its epistemological assumptions – namely that there is \textit{a priori} an ‘ancient Israel’ which is an accessible historical entity. This always has been taken for granted in the historical paradigm but to the revisionists, nothing in the text is necessarily or automatically real outside the text. Thus, it is quite possible and even probable that a literary construct, and nothing more than a construct, has become
inappropriately the object of historical investigation.

The revisionists also dismiss the historical approach on the deconstructionist grounds that texts are so clouded by the ideological, political and didactic power relations of the author and especially the reader/interpreter that meaning becomes arbitrary. K. Whitelam boldly professes that it is impossible to write objective, disinterested history (Shanks, 1996: 54), and it is assumed that this is reason enough not to endeavor to persevere in the undertaking. So it is that Davies accuses biblical scholarship of being "guilty of a retrojective imperialism," which displaces an otherwise unknown and uncared-for population in the interests of an ideological construct" motivated not by seeking truth through critical scholarship but by theology and religious sentiment (Davies, 1992: 31; see further Whitelam, 1996a, 1996b). Whitelam sees strong parallels between the invention of ancient Israel and the modern state of Israel and calls for Palestinian history to take its place as an autonomous history (Whitelam, 1996b). He states that scholarly efforts, especially those of Israeli scholars, toward the historical reconstruction of ancient Israel are a political act serving to suppress Palestinian history which will remain silenced until it is freed from the tyranny of biblical studies (Whitelam, 1996a; see also Shanks, 1996: 56). So the scholarship that has been produced by the historical paradigm, according to the revisionist critique, is symptomatic only of the ideological and political biases of its researchers, and consequently adds little or nothing to our understanding of ancient Israel. In addition, the revisionist critique has questioned the ability of the modern scholar to understand the psyche or intent of the biblical texts' authors. The revisionists are thus, demolishing the epistemological assumptions of
historically based biblical exegesis regarding interpretations of sense. The basis for this line of deconstruction is – deconstruction.

The deconstruction dog hunts well with the revisionist scholars as deconstructionist tenets are visible throughout the last several paragraphs. Primary among these, with relation to biblical scholarship, is the questioning of any insured content or meaning in biblical texts that can be investigated with veracity regarding the history of ancient Israel. While questioning along these lines, in and of itself, is not necessarily a bad thing, indeed it can be healthy, however, the call for the total abandonment of a line of scholarly enquiry is alarming. Thus, it needs to be asked at some point, is it useful to jettison the historically-based exegesis altogether and replace it with the deconstruction based new critical method? Now we must return to Dever’s original premise that the revisionists pose a great threat to the study of the ancient Near East, and also to the question posed earlier – can the revisionists be ignored or do they indeed present a crisis? Much of the answer to this question lies in what they offer in place of the historically based exegesis and textual criticism. Since its search for historical constructs is pointless and its methodology obsolete, must the interest in, and pursuit of, history be dropped and replaced with pursuit of the study of literature?

The revisionists offer up the biblical text as narrative to be studied as a complete literary document from a literary point of view. Most revisionists believe that the biblical text can only be approached as an intact narrative useful “for understanding the mental history of the people from the time in which it was composed” (Thompson. 1997a: 28 italics mine). Since the last redaction or editing of the biblical text took place no earlier
than the Persian period and, according to many of the revisionists (e.g. Lemche, 1985: 412; Thompson, 1996: 686, footnote 8; Davies, 1992: 161), more likely during the Greek or early Roman periods, the only world we can know is that of the latest redactor. While Lemche, Thompson, and other revisionists would concede that the redacted text was based on earlier sources they would put no faith in anyone's ability to know the meaning and significance of anything before the time when the text came to be in its final narrative form. So according to them, what can be understood through analysis of the narrative as a literary document or construct is the author's (authors') world. But this is not to be learned through a non-literary or historical investigation, only through a literary analysis (e.g. New Literary Criticism) of the text as a literary artifact.

Additionally, when the text is taken as a literary artifact—an entity whole unto itself "no search is needed to find Israel's ancestors, its history, its religion, its deity and its hopes" (Davies, 1992: 12) for they all lie on the page to be read (or found). For as a literary construct Israel is no more than what the author(s) have made it. What can be learned from the text is an understanding of what was embodied in the author's own subjective (or mental) world. We learn this by asking how the biblical literature was written and why (Davies, 1992: 113). Further, to understand how the biblical literature was written, it becomes important to know who the audience was and what is the reason for the particular style of discourse used in the narrative (Davies, 1992; Thompson, 1996, 1999). Thus for example, when the biblical text speaks of an early Monarchy (Saul, David and Solomon), it should not be understood as an historically investigable entity but rather as a mythical literary creation 'wrote up' or manufactured, contrived, and
concocted for the state by its own scribal school (the latest authors). Never mind that much of this reconstruction is non-verifiable outside the authors’ (esp. Davies, Thompson, and Lemke) own subjective world.34 They go on to suggest that the reason for this literary creation is to give the people of Judah (at least its descendants in a post-exilic setting) a common history (Thompson, 1997; Davies, 1992: 94-130). In addition to a common history, the text also would give the people of Judah a wisdom ‘tradition,’ a cultic repertory, and “other kinds of literature which any such state should have in order to gain credibility and respectability” (Davies, 1992: 130). This mode of enquiry and research provided by the revisionists has caused considerable reverberations throughout the biblical community. For their voice has been a resounding one.

The revisionists have made a significant impact on biblical studies evidenced by their lengthy list of publications, their papers read at major international scholarly conferences, and the variety of scholars presently citing their work. As mentioned before the revisionists are a literarily prolific group of scholars. In fact they probably have been the most productive scholars in biblical studies over the last decade, producing no less that eight monographs on the “history” of ancient Israel published by respected presses (e.g. Sheffield, Brill). In addition they have produced numerous articles in mainstream scholarly journals (e.g., Journal for Biblical Literature, Journal for the Study of the Old Testament, and the Bulletin of the American Schools of Oriental Research) as well as those directed toward a wider, more popular audience (e.g. Biblical Archaeology/ Near

34 An example of this would be Davies assertion of an alleged scribal school that created the biblical text some time around the Hellenistic period (Davies, 1992).
The revisionists also have been very visible at professional conferences and meetings. This has especially been the case in the past couple of years where they have been invited as keynote speakers or panel members on featured sessions at the most prestigious and largest scholarly meetings of biblical researchers in the world. In 1996 K. Whitelam delivered a keynote paper in one of the very few sessions sponsored jointly by the American Academy of Religion, the Society of Biblical Literature, and the American Schools of Oriental Research (Shanks, 1996: 54). Other revisionists delivered similar papers in similar high profile sessions (e.g. Lemche, 1997; Thompson, 1997; Silberman, 1997).

As can be seen from this discussion, the revisionists have produced an voluminous array of materials for consumption by a wide ranging audience. Evidence of this range is seen by the frequency with which many of their works are cited. This is widely seen inside the field of biblical studies and increasingly so outside (see e.g. Goudsblom, 1992). The post-modern academic environment in many institutions of higher learning must have some role in this, however the stature of many of these scholars also is impressive. Many are trained in high profile universities (e.g. Oxford, University of Chicago) and have gained employment in institutions of similar stature. When all of this is taken together, the numerous publications, the numerous high profile appearances at national conferences, the widespread citation of their writings, and their employ in numerous institutions of higher learning, it suggests that the revisionists are taken seriously and consequently affect the direction of critical biblical studies. Part of the
reason is due to new lines of inquiry in approaching biblical texts. Also responsible are some of the credible issues raised by revisionist scholars concerning the reigning historical paradigm.

The literary approach to texts employed by revisionists has added new lines of enquiry in the study of biblical texts. Principal among them is the study of the biblical text as a narrative (Davies, 1992; Lemke, 1998; Thompson 1992). When studied holistically, the text's significance and beauty as literature, and the artistry of the redactor(s) as well as his (their) wisdom and literary sensitivity, is undiminished (Friedman, 1987: 230-245). The Bible becomes more than the sum of its parts. Additionally, by focusing on the latest authors, the revisionists also place emphasis on one of the least known periods in biblical studies – the post exilic period (post 587 B.C.E.). Literary analysis has much to offer and should absolutely play a significant role in the analysis of the biblical text.

The literary approach employed by the revisionists has raised significant and credible issues as it has challenged the historical paradigm. One of the reasons the revisionists have welcomed a holistic approach to the biblical texts is their disillusionment in prevailing documentary hypothesis. Divisions in texts, biblical books, chapters, verses, sentences, and phrases has led to an infinite regress of textual separations as scholars sought to root out the various biblical strands and authors in their attempts to better understand the various parts of the text (see McKenzie and Haynes, 1993). It is hard to find agreement among scholars on how texts should be separated and what these separations mean from the historical perspective.
Also significant is the revisionists' exposure of serious problems in the epistemological assumptions implied in some historical reconstructions, namely those which assume *a priori* the existence of an ancient Israel that is investigable. This must be investigated and not simply assumed. They also credibly examine and expose the influences of the nationalistic, political, and ideological factors of various practitioners of the historical approach. Particularly revealing is work by N. A. Silberman (1982, 1989, 1990). Often, however, too much is made of this. While a number of revisionists have been quick to point out the ideological baggage of others (especially Whitelam, 1996a, 1996b), they also are guilty of allowing their own political and social ideologies to severely influence and taint their reconstructions of the past (see Dever, 1999). While it certainly has been demonstrated that many histories of Israel reflect the ideological, religious, and nationalistic times and places in which they were written, the revisionists act as if they personally discovered the near impossibility of writing objective, disinterested history. In fact, however, some of the most critical reviews of biblical historical scholarship have come from scholars undertaking research well within the bounds or the historically guided paradigm which reigns presently in biblical studies (see, e.g. Dever, 1994, 1995a). In reality, practitioners of the present historical paradigm have properly exposed the self-projecting propensities of their predecessors, and in their own work been self-critical, introspective, and pensive. Pointing out perceived or real, or intentional or unintentional biases in reconstructions of the past is not reason enough, in and of itself, to completely abandon the prevailing historically based exegesis and textual criticism. But what does this mean for the revisionist claims otherwise? Before any
source which attempts to give meaning to the past is jettisoned, it would be productive to consult outside sources of data that may be relevant to the issues in contention.

Archaeological investigations provide extrabiblical sources of data that have been employed by biblical scholars for a long time – both well and poorly. The use of archaeological data by revisionist scholars is telling regarding some of their assertions.

Revisionists have asserted their openmindedness. This comes from practicing an approach to biblical scholarship that is not laden with theological and ethical sentiments and a need to create retrojective imperialist and ideological historical constructs. However, in spite this open-mindedness, they take great pains to “explain away” many archaeological data contentious to their historical reconstructions. This can best be seen in their approach to the United Monarchy of ancient Israel during the 10th century B.C.E. Davies has stated that the historicity of the biblical characters David and Solomon is highly suspect on the grounds that “none of these characters has left a trace outside the biblical text!” (Davies, 1992: 12). In doing this, he completely dismisses archaeological remains including monumental fortification systems which archaeologists long have associated with especially Solomon (but see Finkelstein, 1998, 1999). It must be admitted, however, that these associations are based on the relative dates of excavated remains and cannot be attributed unequivocally to a single individual. However, since Davies wrote his statement regarding David and Solomon, several very significant archaeological discoveries have come to light, the most notable including three sizable fragments of a ninth century memorial stele from Tel Dan most likely referring to the ‘house of David’ (Biran and Naveh, 1994), and an 8th-7th century B.C.E. dedicatory
inscription mentioning a brief genealogy of Philistine rulers of Ekron (Gitin et al., 1997; Gitin and Cogan, 1999). Additionally, an improved understanding and reading of the Moabite stone now has led to the identification of a reference there to the “House of David” (Lemaire, 1995). This type of evidence is exactly what Davies was referring to as lacking in his assessment of the historicity of David and Solomon. While Davies cannot (and should not) be held responsible for knowing such would come to light, one would expect the modification of his present views to account for these new data. This was not the case.

Instead of treating these new discoveries with an open mind, Davies and several other revisionists have attacked the new data on philological grounds, paleographical grounds (Rogerson and Davies, 1996), and as outright deceptions and lies perpetrated by archaeologists (see Lemche, 1995; Thompson, 1997; Cryer, 1994). The Dan inscription was immediately labeled a fraud by Cryer, Lemke, and Thompson, even before the stone was fully published or they viewed the stone in person. The same attacks were raised by Thompson and Lemke when the Miqne inscription was first found. They since have moderated their views. Rogerson and Davies tried paleographically to re-date all monumental inscriptions from the Iron Age to a period several hundred years later, a time that better fit their understanding of biblical history— or lack thereof (Rogerson and Davies, 1996). They only demonstrated their lack of understanding of the mechanisms upon which epigraphy and paleography work (Cross, 1997; Eshel, 1997; Hendel, 1996; Hurvitz, 1997; Lemaire, 1997; McCarter, 1997; Yardeni, 1997). At the least, many of the revisionist scholars have been less than open minded regarding the archaeological
evidence which does not fit their understanding of the biblical past. Thus, to completely dismiss all historical reconstructions of ancient Israel as works of fiction on the basis of ideological and literary critical approaches, especially when contradicted by archeological data, is tantamount to throwing out the proverbial baby with the bath water. I would suggest that no approach to biblical studies should be so completely and utterly dismissed.

It is an elitist attitude that calls for the total abandonment and replacement of the historical exegesis and biblical criticism. The revisionists’ claim otherwise is akin to scholarly fascism as it would limit the type and scope of scholarly inquiry and thus restrict any real understanding of ancient Israel. They essentially tell us that their approach renders them, and only them, privy to the biblical past. It is this stance that allows the likes of N.P. Lemche to profess disdainfully to those who disagree with him that his work correctly gives people

“a Biblical text that is not hamstrung by having to provide historical information. The text as narrative still remains unharmed. The layperson cannot be blamed for not understanding what is going on in a postmodern academic world, but scholars can” (Lemche, 1998: 10).

Other approaches are seen simply as passe. In spite of these bold claims, the revisionists’ paradigm fairs poorly as a replacement for the reigning approach to biblical studies.

While revisionists claim to keep an open mind in their search of ancient Israel, many red flags appear in their scholarship. Many of the flags are inherent to their deconstructionist underpinnings, fallacious methodologies, and loss of confidence in investigating an ancient Israel. One of the reasons for the disillusionment in previous
biblical scholarship was that the prevailing documentary hypothesis led to an infinite regress of textual separations as scholars sought to root out the various biblical strands and authors in their attempts to better understand the various parts of the text. However, deconstruction leads right back to the practices of readings in depth to the infinite regress of ultimate undecideability. As such, deconstructionist tenets are self-defeating. Dever (1998) has demonstrated that many of their attempts to reconstruct an ancient Israel are obviously filled with programmatic statements which reflect the author’s political and ideological biases more than leading to an understanding of ancient Israel and its neighbors. For these reasons, the literary critical methods employed by revisionists are a poor replacement for the historically based textual criticism presently dominating biblical studies. But what does this mean for the threat of crisis posed by Dever at the beginning of this section?

To date the revisionists have not demonstrated that their approach is more insightful than the approaches of those scholars who preceded them. And by abandoning the knowledge learned from decades of the historically based textual criticism, the revisionist scholars will do themselves a great disservice. As pointed out by Gadamer, to “stand within a tradition does not limit the freedom of knowledge but makes it possible” (Gadamer, 1960: 324). I would suggest that the threat of crisis presented by the revisionists will pass. Their self-proclaimed objectivity, which is a cornerstone of their approach for understanding of the past, is no greater than the objectivity of those practicing the historical exegesis, and less than many. While they have correctly pointed out shortcomings of their predecessors, they offer nothing (literally with their
deconstruction tenets) which holds more promise for better understanding the past. It therefore seems premature to jettison the historically based textual exegesis and its approaches to understanding the biblical past. Literary and material sources both have their special uses and, if used critically, can even be employed together as complements (e.g. Haviland, 1977). But archaeologists should continue to rely on the more direct material evidence, the remains of households, their settings, and the residues of associated activities. However, the view taken here is that biblical texts can be brought to bear on the material remains of the Iron Age southern Levant and therefore can be used to understand ancient Israel. By comparing the biblical texts with archaeological data interpreted through an ethnographic/ethnoarchaeological framework, perhaps just how useful the biblical texts are can be learned.

Biblical Texts and the Archaeological Record

Biblical texts yield a wealth of data that can be compared with archaeological record of the southern Levant during in the Iron Age II. Many references to house form are found in the texts including some mention of construction techniques and activities that took place in domestic settings. But perhaps the most useful information from biblical texts concerns social structure during the Iron I and Iron II periods. Construction, house form, and social structure are discussed below as they relate to the pillared dwelling.
Dwelling Construction

Little of house construction is directly referred to in biblical texts, however building practices employed in other building efforts parallels that known archaeologically for Iron Age dwellings. A good example is the construction of the “House of the Forest of Lebanon” (1 Kgs. 7). While this structure, as described in the biblical texts, was much larger than typical pillared dwellings of the Iron Age, some of the construction techniques associated with its form appear in pillared dwellings. In this structure, four rows of cedar pillars, fifteen to a row, supported trimmed, cedar beams laid horizontally to support the cedar roof (1 Kgs. 7: 2-3). Other fixtures including rows of windows and doors were cut and installed to face one another. Their shape was rectangular and they were wood-lined (1 Kgs. 7: 3-5). The use of pillars for supporting spanning beams and then beams for supporting a roof is well attested in dwellings of the Iron Age.

While little of house construction is referred to in biblical texts, periodic house maintenance is used as a metaphor for maintaining one’s relationship with Yahweh. Sloth and carelessness are warned against in roof maintenance (Eccl. 10: 18). The same diligence and constant upkeep required for the maintenance of a roof – which includes constant compacting (through trampling or rolling) and the periodic application of new plaster – is required in maintaining one’s relationship with Yahweh. Also, empty, half-measures aimed at being faithful to Yahweh will ultimately weaken “it” to the point of collapse as merely slapping plaster on a wall in need of serious repair lead to its collapse. The fury that nature (Yahweh) hath wrought will surely remove such plaster, causing
severe erosion of the damaged wall and finally collapse, laying its foundations bare (Ezek. 13: 10-16).

Dwelling Components

Biblical texts also shed some light on the different components of the Iron Age dwelling including the occurrence of domestic stables and the use of upstairs space for living activities. While no direct reference to a domestic stable is made in biblical texts, Stager identifies an indirect, off-handed reference which alludes to the existence of such a structure (Stager, 1985: 15). When Saul’s men and the witch of En-Dor plead with Saul to eat after his unpleasant oracle with the ghost of Samuel, the witch prepares for the tired and hungry potentate the “fatted calf” or, more literally, the stall-fed calf kept or raised in the house (1 Sam. 28: 24). Stager suggests this is a calf raised in the house for special occasions (Stager, 1985: 15), or put another way veal for the VIPs. This reference, along with others in Ps. 50: 9; Amos 6: 4; Jer 46: 21; and Mal. 3: 20, compels one to infer the presence of a domestic stable. And if parts of the lower floor are involved in stabling and possibly folding activities, one would assume the space occupied for living activities to be as far removed from them as possible. Biblical references to the roof and the second floor support this assumption.

The use of the roof or second floor rooms is well attested in biblical texts. While most texts indicate activities that would fall in the realm of living activities (visiting/conversing, sleeping, and mourning, care for the dead, and performing miracles), storage activities are indicated as well. Saul talked with Samuel on the rooftop (1 Sam. 9:
25) and the next morning was awakened from his sleep there when called to by Samuel (1 Sam 9: 26). David arose from his bed and walked on the roof of the King's house (2 Sam. 11: 2). While Saul and David may have been sleeping on the roof, it is also possible they were sleeping in an upper room which opened onto the roof.

Rooms on the second floor of dwellings and other structures are well attested in Biblical texts. It is in an upper room above the gate that David goes to mourn the death of Absalom (2 Sam. 19: 1). At Zarephath, Elijah took the deceased son of a woman to the upper room of her house where he (Elijah) had been residing and placed the boy on his bed. A short time later Yahweh revived him (1 Kgs. 17: 19-23). The woman of Shunem has her husband build a small, upper room on their roof complete with bed, table, chair, and a lamp for Elisha to use when traveling their way (2 Kgs. 4: 10). Similar to Elijah, as an agent of Yahweh, he revives the woman's deceased son there. Ahaziah received mortal injuries when he fell through the lattice work of his upper room in Samaria (2 Kgs 1: 2-6). The authors of Deuteronomy probably had such accidents in mind when he/they mandated the building of parapets on roofs of new houses, lest anyone falls from it incurring blood vengeance against the house (family) (Deut. 22: 8). The corpulent Eglon is killed by Ehud in a "special" upper room (probably a privy) paving the way for Israel's liberation from Moab (Judg. 3: 12-23). The upper rooms also led to the rescue of individuals.

Michal lowered David from an upper story window whence he fled from Saul safely into the night (1 Sam. 19: 12). Similarly, Rahab lowered the two Israelites sent to reconnoiter Jericho over the city wall on a rope hung from her window, as her house was
against the city wall (Josh. 2: 15). The text goes onto say that Rahab actually lived in the wall. This sounds like the classic example of the broadroom of a pillared dwelling built into the casemate wall of a city and covered by at least one additional story. While this story is set in the early Iron I (12th - 11th cent. B.C.E.), the casemate wall system only became prevalent in later periods (the 10th and especially the 8-7th centuries B.C.E.) indicating the text likely originated in the later Iron II period. Additional information about the dwelling can be gleaned from the Rahab story. Before she lowered the Israelites over the wall, she hid them on her roof under stalks of flax which she had laid out there (Josh. 2: 6). This suggests Rahab's house carried an additional story on only part of its lower story roof. It also suggests that activities involving the processing or storing of flax were taking place on the roof. Bathing and other activities in the David and Bathsheba (2 Samuel 11) are intimated to have taken place on the roof or in the second story.

One final activity taking place in dwellings deals with cultic activity. Some took place on the roof and were frowned upon by the prophet Jeremiah causing him to pronounce damnation on those houses whose occupants have gone up to the roof and offered incense and poured libations to other gods (Jer. 19: 13). In another situation, the Danites abduct a Levite (to his great delight), along with several cult objects from one of the houses of the beth-‘ay (household) of Micah and set them up for their own use at Laish/Dan (Judg. 18: 17-20). These suggest that cultic activities took place in the dwelling where cultic paraphernalia also were kept and used, and that people (mishpahot) employed their own religious officials in their homes.
In summary, biblical texts can provide valuable information about the Iron Age dwelling, including aspects of its construction, its form, and information on some of the activities which took place therein. While this information is useful, perhaps the most enlightening information provided by biblical texts concerns the occupants of the dwellings and the way they organized themselves socially.

**Social Structure and the Bible**

Early Israel (12-11th centuries B.C.E. or Iron I) was manifested on the landscape of Palestine's Hill country in small egalitarian, patrilineal, patrilocal, and endogamous settlements related to one another in varying degrees of perceived kinship. This has led many biblical scholars to identify their aggregate as a tribal society. Biblical texts bring to light a social structure internally articulated into small, medium-sized, and large social groups which biblical scholars often associate with the three, ever-widening organizational spheres used often to describe egalitarian or "non state" entities: "families" or "houses" grouped into "clans" further grouped into "tribes." However, these terms were rarely defined and many scholars appeared unaware of ambiguities caused by their use until Gottwald (1979) investigated the intricacies of the biblical terminology for various social units and attempted to define and understand them against the backdrop of sociological and anthropological terms that held specific meaning regarding kinship and social organization. His research, as well as others. (e.g. de Vaux, 1961; Malamat, 1962; de Geus, 1976) led to the "Folk Model" reconstruction of early Israelite society. Early Israel's social organization is thought by many scholars to continue well into the later
Iron II (see Stager, 1985) – consequently it serves as the basis for this reconstruction. However, features of Israelite society known from later texts or additions to the text (late Iron II at the earliest) and suggestive of social change also are included to help determine Israel's social structure during the later Iron II, i.e. the late 8th century B.C.E.

The following section discusses the three most important social groupings in ancient Israel. Beginning with the smallest, least inclusive group – the beth-'av, it will then move to the intermediate mishpahah before finally expanding to briefly address the largest, most inclusive group, the shevet/matteh. These groups are discussed as defined by the texts and related to defined terminology allowing for more accurate identification. The ways each group functioned, both separately and in relation to the others, are addressed as well. It is demonstrated that these three social spheres have direct bearing on our understanding of the pillared dwelling, its inhabitants and how both fit into the larger social structure of ancient Israel.

The Beth-'av

In the textually revealed ancient Israel, the smallest social unit above the individual was also the most important in the realms of identity and responsibility. This is the bayith ("house") or beth-'av ("house of the father") usually translated as an extended family. This patrilineal, patrilocal social unit headed by the oldest living male in a lineage (rosh-bet-'av or "head of the house of the father") comprises all the

35 There is also mention of the beth-'am several times in biblical texts. Further, see Meyers, 1991.
descendants (excluding married daughters) of a single living ancestor in a single lineage, male and female slaves, and their families, resident laborers, and sometimes resident Levites (Judg 18: 17). Gottwald suggested that as many as five generations might be encompassed in a single beth-'av assuming early marriages and a 20 year generation (Gottwald, 1979: 285). He thus assumed that 50 - 100 members of a thriving beth-'av, residing in a cluster of dwelling units, would not be out of the question (see C. Wright, 1992: 762). However, this number seems high. It is more likely that the average beth-av consisted of two or three generations and was comprised of several nuclear families and their non-related dependents numbering 6 - 15 individuals. As a social unit the beth-'av fits nicely with the household as defined earlier in this proposal (its role in production, transmission, reproduction and is discussed below). Biblical texts do not define an intermediate social organization between the beth-av, or extended family level of social organization, and the individual. Since the pillared dwelling could not have been occupied by a group larger than the nuclear family or small extended household, this omission is interesting.

The number of individuals in a beth-av fluctuated as it went through the various levels of the domestic cycle or different economic and warring situations. Attrition could occur through death (natural, war, famine, etc.), infertility, lack of sons, and/or the selling of land dependents due to debt (see 2 Kgs. 4: 20 for this means of attrition). Growth of a beth-av could be achieved through births, acquiring wives for sons, adoptions, economic prosperity attracting resident workers or craftsmen, and/or the purchase of slaves. A healthy beth-av was the focal point for the social, economic, and theological realms of
activity in Israelite society.

In the social realm, the *beth-av* was the particular environment where an individual was brought to an awareness of his culture's rules – the vehicle of continuity for law, inheritance, faith, history, and the traditions of the collective. The *beth-av* is the primary framework of legal authority into which the Israelite was born and remained in while his grandfather and/or father were alive. It has legal authority to act judicially without reference to any external civil authority. The head of the household, the *rosh-bet-av*, took part in an assembly of elders to make important decisions affecting the viability of the household (war for example). The heads of households and their lineage mates exercised rights over inheritance and succession in landholding.

Each *beth-av* had its own inheritance of land (*nahala*). The intention of Israel's land tenure system was to spread land ownership as widely as possible through all *batei-av* (plural of *beth-av*). This system was protected by the principle of inalienability which maintained that land should remain in the *beth-av* to which it had been appointed and could not be sold permanently outside of it (Malamat, 1962: 149; Wright, 1992: 764). The Jubilee, which theoretically occurred every 50 years, necessitated the return of sold land to its original *beth-av*, reinforcing this system. Evidence points to strict adherence to this rule and according to Wright (1992: 764), no place in the Old Testament is there an example of an Israelite selling land voluntarily outside the *beth-av* nor is there any extra biblical evidence (except for Canaanites and other surrounding societies). However, an exception may be Shemer's selling of the hill of Samaria to Omri (1Kgs 16: 21).

Evidence may exist for inheritance moving from partible to impartmental
transmission as part of the changes taking place from Iron I to II. During the Iron I, the
*beth-av* could acquire new land through "lineage capture" – converting useless land into
working terrace farms or livestock settlements in the marginal semi-arid zones thereby
providing a rapidly broadening base of small residentially stable household units (Marfoe,
1979: 23; cited in Stager. 1985: 24). However, as land became increasingly restricted
during the later Iron II, due to increased land fragmentation through partible inheritance,
population growth, and later by intervention of a newly established monarchy, new
pressures were created which made it desirable to curtail the parcelation of land. Thus,
laws which gave larger portions to fewer individuals began to appear. Deuteronomy 21:
15-17 and 2 Kings. 2: 9 both mention double portions for firstborn males and both come
from relatively late sources. Consequently, they may reflect the move from labor as a
scarce resource to land as a scarce resource necessitating a shift from partible to
impartible transmission of inheritance (see Netting. 1982).

Such trends would create a class of young males who could not inherit sufficient
land and wealth or otherwise become head of a household (Stager. 1985: 25). However,
changing socio-political organization created institutions capable of absorbing many of
them including the military, government, or priesthood. Banditry also was an alterative.
The term *na'ar (ne'arim* pl.). often translated as "lad," "youth," or "servant," more likely
had little to do with age and referred to unmarried sons who are not yet heads of
households and serve in a dependent status (Stager. 1985: 25 following Stahli. 1978).
*Ne'arim* are often "high born" and take positions in the government and military
(MacDonald. 1976: Avigad. 1976). David's and Saul's *ne'arim*, for example, are hand
picked men who fight one another to the death (1 Sam. 21: 3, 5; 2 Sam 2: 14). The priesthood also provided opportunities for sons who inherited little (Deut 33: 8-11) (Albright, 1956: 109). Thus, during the Iron II, "it was not the first born who made a name for himself in the affairs of the state. In the case of Gideon, David, and Solomon, it is explicitly stated that they were the youngest in their father's houses. It was from the ranks of the lateborn noble youths, aggressively pursuing wealth and power to match their status, that the most important positions in the army, priesthood, and the palace were filled." (Stager, 1985: 28). The late born were provided a means to economic stability.

The beth- 'av was the basic economic unit of Israel's land tenure system with a wide range of functions and activities. The intention of Israel's land tenure system was to spread land ownership as widely as possible creating a broad base of economically stable batei- 'av or households. Land (the nahala) was to stay within a mishpahah or "clan" never to change ownership between tribes (Num. 36: 6-9). The land was not to be sold permanently (see Jubilee below). This is demonstrated by Ahab's inability to purchase Naboth's vineyard, being told by Naboth, "Yahweh forbid that I should give you my ancestral heritage [nahala]" (1 Kgs. 21: 1-3). While the intent of the system was land-based economic equality spread over a broad area and population, inequalities certainly developed within Israel long before the establishment of the monarchy. Lineage capture and differing prosperity (economic and reproductive) created inequalities among batei- 'av but institutions like the Jubilee tempered their severity.

During the Jubilee year, which occurred every fifty years (roughly two generations), land that changed hands within a mishpahah (clan) - that is from one beth-
'av to another – reverted back to the original beth'-av, along with any dependents who were in debt or bondage (C. Wright, 1992: 764). It was thus designed to maintain the viability of batei-'av on their own land through periodic restoration. In order to obtain large tracks of land one had to overcome the Jubilee. Omri's ability to buy the hill of Shemer for two talents of silver may be evidence of this (1 Kgs. 16: 24), however Naboth felt secure in his right (mistakenly it turns out) to refuse land sale to Omri's son Ahab (1 Kgs. 21: 1-3).

The beth- av was the essential locus of personal security for all individual members within the national covenant relationship with Yahweh (Mendenhall, 1960). Anything that threatened the stability of the socioeconomic structure (war, famine, new socio-political organization, etc) of the nation would have serious repercussions on the national covenant relationship with Yahweh and, by undermining the nation's roots and soil – the network of free landowning batei-'av (C. Wright, 1992: 765). In this light, it is not surprising that Samuel warns Israel against taking a king (1 Sam. 8: 10-18). Along with the Iron II monarchy came geo-political reorganization of administrative districts that cut across kinship groupings (cf. Stager, 1985: 24). the confiscation of land (1 Kgs. 21: 8-16). imposition of taxes and corvee (1 Kgs. 9: 15). forced levy (Josh. 13-19), and a more stratified society. Prophets protested against the monarchy, not only because of the rejection of Yahweh and his laws, but because the monarchy threatened the very foundation upon which the covenant of Israel was built – the numerous batei- 'av holding land in small parcels widely dispersed throughout the land of Israel.
The Mishpahah

The secondary level of social organization, often referred to in biblical texts as mishpahah or 'eleph, is a unit of pseudo-kinship but of a far wider scope than is implied by the English word for family (as mishpahah is often translated). The term “clan” is most often associated with mishpahah, however, in sociological and anthropological terminology this term is usually reserved for a secondary level social entity (perhaps consisting of several lineages) with exogamous kinship divisions and whose members assume descent from a common ancestor, but who cannot demonstrate the genealogical connections (see Gottwald, 1979). The mishpahah was normally and sometimes statutorily (see Num. 36: 7-9) endogamous. For this reason, Gottwald believes no clan existed in ancient Israel. He identifies a secondary level of social organization which he terms “protective association of families (batei-av)” (Gottwald, 1979: 301-). The “lineage” – made up of a number of families who can demonstrate kinship – may also be appropriate, if genealogical connections can be demonstrated, however this is doubtful since actual blood ties were far too complex and too poorly known. In spite of Gottwald’s reservations clan may still be the most appropriate term.

A major feature of the mishpahah became its territorial identity with which it shared its name (e.g. Hepher, Hoglah, Shechem, Shemida, Tirzah, Shimron, Hezron, Elon, Gileat (Gottwald, 1979: 268; see also Malamat, 1968; B. Mazar, 1981). The tribes were allotted land according to their mishpahah (e.g. Josh. 13: 15: Num. 33: 54). These allotments which were subdivided (into nehalot, the pl. of nahalah) and given to the batei-av (Judg. 21: 24). While a number of these eponymous mishpahot (pl of
mishpahah) are known from biblical texts many are not. The Samaria ostraca (store house receipts for goods received - especially oil and wine) provide names of towns otherwise unknown enabling the reconstruction of clan districts on the map (Kaufman, 1982: 229; Aharoni, 1967: 325-6). Also included in the ostraca are seven biblically known clan names from the tribal genealogy of Manasseh (Num. 26: 30-33; Josh. 17: 2-3; 1 Chron. 7: 14-19) that are identified geographically by comparisons with modern Arabic place names (Aharoni, 1967: 322). In addition to locating toponyms, the ostraca also shed light on scholarly perceptions of change brought about by the monarchy. Much has been made of Solomon's reorganization of Israel into twelve districts cutting across and dismantling old kinship boundaries. However, the Samaria ostraca promote dramatic evidence that some of the old clan and lineage divisions retained their integrity until much later (Stager, 1985: 24).

Another important feature of the mishpahah is its role as protector, and in this regard, Gottwald's term "protective association of families" is very applicable. One the salient functions of the mishpahah included the protection of the socio-economic integrity and solidarity of its member batei-'av when they were unable to act in their own behalf. Help was extended primarily in the form of restorative functions. If a beth-'av became unable to maintain its normal autonomous basis, the mishpahah would provide a go'el or "kinsman protector" (from the verb ga'al "to restore") to act in its behalf. This was primarily performed by a close-kin male relative (Gottwald, 1979: 262-263). While the criteria for eligibility to act as a go'el are not well known, it was likely someone within one's own mishpahah and was certainly based on nearness of kin. The various functions
performed by the *go’el* include: 1) To raise up a male heir for a deceased (Ruth 2-4; Deut. 25: 5-8) family head which may involve marrying the widow and siring a son to inherit the *nahalah* in the name to the deceased. 2) Buy up or buy back property so that it remains in or returns to the *mishpahah* (Ruth 4: 9; Jer. 32: 6-15). Males eligible to act as *go’el* were required to do so unless in so acting they would jeopardize their own patrimony (Ruth 4: 6). Upon refusing to act as *go’el* one’s house would become known derogatorily as “house of the unshod.” 3.) Purchase the release of a group member who has fallen into debt slavery, or to pay off his debt so that he does not fall into debt slavery (Lev. 25: 48-49). 4) To avenge the death of a member of the group (Gottwald, 1979: 262-266). The *go’el*, on behalf of the *mishpahah*, protected the integrity and solidarity of the beth-‘av. When the *mishpahah* has protection responsibilities in the form of military service, it is sometimes referred to as ‘eleph.

While *mishpahah* and ‘eleph are interchangeable (e.g. 1 Sam. 10: 17-27), the latter term usually carries military connotations and can be identified as a “*mishpahah* in arms.” The ‘eleph was mistakenly passed on in later sources (i.e. Priestly source) as a fighting unit of 1000 men which obscures its real meaning as a military unit with a variable number of men (supplied by its member *batei-‘av*) that were mustered or promised for muster by the *mishpahah* to the *shevet* in times of war (Gottwald, 1979: 257). The unit has good parallels in ancient Greece and Rome, early Japan and China, and from Mari, Ugarit, and Alalakh (Mendenhall, 1968).

While the socioeconomic functions of the *mishpahah* were directed “downwards” its military functions were directed “upwards.” It thus had a vertical bonding effect on
the social whole (Gottwald, 1979: 319).

**The Shevet/Matteh**

The terms "shevet" and "matteh" often are used to refer to the primary unit of social and territorial organization in ancient Israel. Its closest English equivalent is the term "tribe" in that the members of the shevet or matteh are arranged in separate living groups (batei-‘av and mishpahot) but have established a sense of affinity with others outside of their immediate living area with whom they share activities and identifications – affiliates in a "ritual congregation" (a la Sahlins. 1967: 89) practicing Yahwism.

Israel’s social entirety was divided into a number of these units who collectively make up all shevetim (pl. shevet) or the “Tribes of Israel” (also referred to as 'am Israel, shivte-Israel, and benei Israel or “the People,” “Israel,” “the tribes of Israel,” and “the sons of Israel” respectively).

Members of the shevet descended from an eponymous ancestor whose name is given to the shevet and associated with a specific territory (e.g. eretz Judah refers to the land or shevet of Judah in southern Israel). It was on the basis of one’s shevet that military levy was served and this apparently is one of its primary functions – supplying military units to aid other shevatim in times of military danger (Gottwald. 1979: 253; C. Wright. 1992: 761). An example would be the call to Saul to meet the Philistine threat in the Beth She’an Valley. In terms of everyday life and social impact on the individual, this group was the least significant of the organizational spheres. Also, the existence of this group before the establishment of the monarchy is open to debate.
A review of the social structure of early Israel as described in texts reveals a society organized into three ever-broadening social groups held socially bonded to one another by the mishpahah. This group provided military units to the larger shevet/matteh from its member beth-‘avot, or “households,” the smallest social unit in early Israel and the one which occupied either the pillared dwelling or clusters of them in the small Iron I egalitarian settlements. When compared to the information from Chapters III and IV, I would suggest that the beth-‘av occupied a single pillared dwelling as a small extended household, organized just as the biblical texts intimate, into an endogamous, patrilocal household. While the social structure for early Israel is well understood, later texts allude to changing social organization in the beth-‘av including changes in transmission and land sale. While this evidence is admittedly slight it warrants a closer examination of social structure during the Iron II, particularly at the level of the beth-‘av. Since the biblical texts are equivocal in this regard, illumination must come from extra biblical sources. Ethnographic and ethnoarchaeological research, both direct and indirect, along with archaeological data provide excellent sources for comparison with biblically generated data.
In concluding, information learned from the Chapters III, IV, and V will be combined to render a detailed, synthetic reconstruction of the archaeological household and its associated pillared dwelling for Tel Halif in the 8th century B.C.E. This includes as many facets as possible of domestic activities associated with production, distribution, transmission, and reproduction, and how these in turn reflect household organization. The dissertation concludes that the domestic unit which occupied the pillared dwelling or archaeological household is indeed equivalent to the household as defined in the first chapter of the dissertation. It also is demonstrated that the unit occupying the pillared dwelling as its domestic realm is equivalent to the "beth-‘av" known from the biblical texts.

Also demonstrated is that a better understanding of many other aspects of society including political, economic and social arenas outside the household can be gained from study of the household. It thus is an important building block for reconstructing higher order aspects of past societies – something not appreciated always by scholars working in the southern Levant.

As described in Chapter V the biblical beth-‘av is virtually identical to the Arabic za‘ila from Chapter IV (already Stager, 1985). When information from the pillared dwelling is combined with descriptions of the za‘ila and the beth-‘av, a convincing reconstruction for the social unit occupying the pillared dwelling is gained. For the
following discussion, this unit is placed in the broader context of the Iron Age society.

Beginning with the Iron I, it culminates in discussion of the organization of the occupants of the Iron II pillared dwelling at Tel Halif.

Scholars working with the problems of ancient Israel created a convincing reconstruction of the society that emerged in the highlands of Palestine at the beginning of the Iron Age I, a reconstruction that fits well the archaeological, the biblical and the ethnographic/ethnoarchaeological data. The highlands were inhabited by a sedentary people, probably from a number of elements of 13th and 12th cent. B.C.E. society in Palestine— including city-state dwellers, nomadic pastoralists, rural peasants, foreigners, etc. These peoples began practicing dry farming on newly cleared and terraced lands and raised livestock in the hills around their small, egalitarian settlements which are typified by a new style of domestic structure, the pillared dwelling. This new type of dwelling becomes the dominant dwelling type for the next 600 years in many areas of the southern Levant. It was first and foremost functional and met the needs of its inhabitants who utilized diverse subsistence strategies as a means of spreading risk to better insure their survival and prosperity. These new settlements of the Hill Country and Negev environs probably represent the extended families or households (batei-‘av) and clans (mishpahah) that later developed into Israel. Their social organization was patrilineal, patrilocal, and endogamous and many constraints were in place to keep land broadly dispersed among a large number of households. During the next two centuries (11th 10th century B.C.E.), the settlements in the Hill country and Negev desert increased in size, number, and complexity. For whatever reasons, whether population pressure (labor moving from a
scarce resource to land moving to a scarce resource), or exterior military threat from the recently settled Philistines, or an increasing number of “disenfranchised lads,” processes were in action that ultimately lead to formation of the small, secondary states of Israel and Judah, established in the late 10th century B.C.E. The reorganization that accompanied this change affected all facets of society. Politically, a full-time ruler involved in problems of state (military campaigns, judicial matters, border control, etc) was established. A new elite class was formed, and positions of service and servitude were created. Economically, new trade supplemented plant and animal husbandry and a market was created for specialists such as craftsmen (and women), coutiers, literati, engineers, priests, and soldiers. Socially, stratification increased, and attempts were made to centralize cultic practices and establishments, and people crowded into fortified villages, towns, cities and fortresses. Biblical texts from late sources (i.e. Dtr. and Priestly) hint at changes such as partible to impartible inheritance and the re-organization of the tribal districts. By the 8th century B.C.E. social organization at the level of nuclear and extended families may have been affected dramatically, but most scholars assume this is not the case and see the clusters, neighborhoods, and squares present in many Iron II settlements as reflecting various batei-’av or extended families organized much as they had been throughout the Iron Age.

While Gottwald and Stager made compelling arguments for this case, I see no reason to look for the bet-’av in any spatial area larger than the pillared dwelling. Shiloh asserted the small size of the dwelling as evidence of their use by a nuclear family, yet there is nothing that inherently makes this true. Pillared dwellings from the 12th-11th are
identical to the dwellings of the 8th century, except for the former’s larger size. This is undoubtedly due to the spatially liberal nature of the earlier sites, as well as the need for more space for “farm living.” Later the dwelling became smaller in size to accommodate its use in spatially restricted, fortified settlements of the later Iron II. While the floor plan of the dwelling decreased in size, it is possible its square footage actually increased. The archaeological, ethnographic, and biblical data all are in agreement concerning the use of additional stories. While there is no direct evidence for this in the pillared dwelling at Tel Halif, the archaeological data in general yield numerous examples. If a covered second floor is added to the pillared dwellings it brings their roofed space to an average between 80 and 120 meters square. This is adequate space for a small extended household. The association of this building with the bet-av may also be reflected in the burial practices at Tel Halif.

At Tel Halif, as in many other Iron II settlements from the Hills of Judah, the typical tomb is of a bench style carved into the soft limestone hills or wadi faces near Iron II settlements (see Bloch-Smith, 1992a, 1992b; Borowski, 1993). Their shape generally is rectangular to square (ca. 5 x 5 m) and this, along with the benches carved waist high along their sides and rear make these tombs reminiscent of the pillared dwelling.¹⁶ Most tombs are entered through a small, square doorway opposite a bench and repository(ies) along the back wall (broadroom of the dwelling). This entrance steps down into a central corridor (central long room/courtyard of the dwelling) flanked by additional benches on

¹⁶ This idea that tombs were reminiscent of pillared dwellings was first mentioned to me by Oded Borowski during a 1999 Field Season at Tel Halif.
one or both sides (long side rooms in the dwelling). These extend from the back of the
tomb toward the front wall from which the tomb is entered (the pillared dwelling is
similarly accessed through the wall of the building opposite the broadroom). These
tombs typically contained individuals of both sexes and all ages and characteristically
accommodated between fifteen to thirty individuals (Bloch-Smith, 1992b: 217). This
small number suggested to E. Bloch-Smith that each tomb was most likely maintained by
a nuclear family and represented three to five generations. However, this is exactly the
size that I proposed for the bet-‘av occupying a pillared dwelling. Thus, I would suggest
that each tomb represents an individual bet-‘av or small extended household serving as a
dwelling or house for the deceased.

The quarters identified as the locus of the bet-‘av by Stager at settlements like Tel
Beit Mirsim may reflect organization at the level of the ‘eleph or the mishpahah.
Ethnographic evidence supplied by Tannous and Lutfiyya supports this suggestion as two
or more hamula often occupy a village jointly. While I would suggest that the beth-‘av as
a small, extended household is still intact during the 8th century B.C.E., its role in society
undoubtedly changed.

One reason such change is suspected is that societies organized at different levels
of socio-political complexity tend to exhibit different types of household organization as
reflected in differing combinations of production, distribution, transmission, and
reproduction (see Wilk and Rathje. 1982: 621). Changing transmission from partible to
impartible inheritance, which is hinted at in the biblical text, may reflect just such
changes. Often, “the advent of impartible inheritance coincides with the beginnings of a
landless class, a rural proletariat; this is a possible avenue toward social stratification. Such detached persons can also form the base of urban society and a ready pool for craft specialization or armies” (Wilke and Rathje, 1982: 629). This general mode of change determined from ethnographic observation sounds strikingly similar to that taking place in early Israel from the Iron I to the Iron II. The resulting stratification and specialization also appear homologous. When society reorganizes itself in this way, it is not uncommon for reorganization at the household also to occur. This usually involves the shift from an extended household to a nuclear household. This, however, may not be the case for Judah by the 8th century B.C.E. While Shiloh’s assertion that the pillared dwelling served as the locus of a nuclear family suggest that this change does occur. Stager’s suggestion that clusters of dwellings in Iron II settlements represented extended households imply that it does not. The evidence at this point is equivocal and needs further investigation. Ironically, the best locus for investigating this change (or lack thereof) is the one unchanging entity throughout the entire Iron age – the pillared dwelling.

Since the pillared dwelling is essentially the same throughout the Iron Age, the best place to look for clues into household organization is in the material artifacts and their distribution in the dwelling. This was done for the pillared dwelling at Tel Halif and valuable data were gained concerning the organization of its space. Its inhabitants, the biblical *beth-‘av* were viticulturalists living in a small fortified site on the southwestern border of Judah. It members performed a full set of domestic activities in the confines of the pillared dwelling as well as additional activities associated with ritual, and the production of wine and textiles. The members of the household at Tel Halif benefitted
from contact with Mediterranean coastal areas which is telling about the politico-economic relations between these regions during the late 8th century B.C.E.

Two scenarios could best account for the plentiful fish in the diet of the inhabitants of Tel Halif. The first and more likely possibility is that an amicable active trade was carried out in these regions. This suggests that the caustic language used by the biblical writers to describe relations between the people of Judah and the people of Philistia probably does not reflect real socio-political relations, especially in settlements along border regions. If this is the case, fish from the coastal areas of Philistia were brought to Tel Halif and possibly exchanged for textiles, wine and other agricultural and animal products known from Tel Halif's archaeological record. The other possibility is related to the political unrest that was prevalent at the end of the 8th century B.C.E. It was during this time that Hezekiah of Judah took advantage of a perceived Assyrian weakness set in motion by succession squabbles among his Assyrian overlords to expand his influence westward (Gitin, 1997). According to the Assyrian records he expanded into the Philistine coastal plain and actually removed Padi, the king of Ekron from his throne. It is possible these activities are responsible for the presence of the fish. They may have been part of royal efforts to supply all the Judahite settlements in preparations for an Assyrian campaign. The fact that many of the fish bone came from samples consisting of sediments built up through a relatively long period of time would militate against this interpretation. However, if the latter was the case, the efforts were futile as the entire settlement, along with most every other city, town, and village in Judah was burned and destroyed, as the new Assyrian king Sennacherib successfully quelled the rebellions. In
the process, the Assyrians created a rich *de facto* assemblage of materials that provide invaluable data for leaning about the households of the Iron II in the southern Levant.

The usefulness of the approach taken by the dissertation for understanding the Iron II household is demonstrated. A spatial analysis which accounts for formation processes demonstrated that the highly variable character of ceramics provides a valuable tool for recognizing activity areas. While ceramics and their distribution in a destruction stratum are telling in the identification of activities carried on in the pillared dwelling of the Iron II, both non-ceramic artifactual and architectural remains are important for understanding the overall use of domestic space. Microartifacts especially are useful when dealing with the ubiquitous destruction strata of tell sites as they provide a more diachronic view of activities, and therefore a check on the more synchronic *de facto* refuse associated with destruction activities. But when these data are used collectively, along with information learned from both ethnographic and ethnoarchaeological data and the biblical texts, provide a very detailed and comprehensive reconstruction of the organization of the Iron II household at Tel Halif.
APPENDIX
CERAMIC CORPUS CATALOGUE

Storage Jars

Type 1 Ovoid-shaped (short vertical rim, almost neckless)
Widest diameter at mid-section or lower, effecting an oblong to elliptical form:
base: slightly rounded; high pronounced shoulder sharply angled; two handles
attached at keel, angled down to body.

Type 2 Oval shape (ridged neck)
Widest diameter at mid-section: rounded base: two handles attached at rounded
shoulder, rounded shoulder, rounded down to base body.

Parallels - Tell Beit Mirsim Stratum A2 (TBM II. Pl. 13:6)

Type 3 Hippo-shaped (neck inclined inwards, slightly thickened rim) Widest diameter
before mid-section above round base: two handles at rounded or angular shoulder,
rounding down to body, oblong section: incipient ribing. Similar attributes with
Types 1, 11, 12, 15, 17

Tufnell’s class: no parallels

Parallels - Beer Sheva II (Beer Sheva I. Pls. 57: 6; 65:4; 71: 6, 19)

Type 4 Lmlk jar (void-shaped, high neck inclined inwards)
Widest diameter just below shoulder, thin sides four handles at rounded shoulder:
tapers down to a rounded bottom; incipient ribing.

Tufnell’s class S7a: plain sloping neck, ovoid body: T - 484 (Pl. 78: 1/5/11) -
made to a standard size; of a hard, metallic, greyish-red ware; containing grits, and
the walls and rims of the vessel were exceptionally thin and even. Handles
carefully applied at the greatest diameter of the body, and a double ridge ribbing
was usual (p.325).

Parallels - Beer Sheva II (Beer Sheva I. Pls. 65: 10, 11: 67: 4); Tell Beit Mirsim
stratum A2 (TBM I. Pl. 52: 10); Arad stratum IX (BASOR 254. p.18, fig. 19: 1);
Beth Shemesh stratum Iic (AS IV, Pls. XLVI: 21-23. 25; LXV: 1, 2, 3); Tell el-ful
(AASOR IV, p. 23, Pl. 30: 12-14); Tell en- Nasbeh (TN II, Pl. 22: 357); Tell Batas III (Timnah p. 130, figs. 7.12; 7.13).

Tel Halif: H7. 29/. #1: K8/K9.91/B.# 3

**Smaller Version** - Beer Sheva II (Beer Sheva I, Pl. 65: 10; 67:4)
Variation on the lmlk jar
Tufnell’s class S.7b: moulded rim on collar neck, ovoid body.

Parallels - Tell Beit Mirsim A2 (TBM I, Pl. 52: 11; TBM III, Pl. 13: 3); Arad Str. VIII (BASOR 254, p. 21, fig. 22: 18); Tel Eton I (Tel Aviv 12, p. 79, fig 7: 16).

**Type 6 Sausage** (cyma-shaped, short neck, knob rim)
Long, narrow body sometimes squat and sharply s-shaped widest diameter well below midpoint on body very short neck body tapers to a sharply pointed base; high flat shoulder. Angled up and inwards: two handles attached at shoulder rounded to body shabbily applied.

Tufnell’s class S3: moulded rim, angular shoulder, waisted body. T - 489 level III (Lachish III, Pls. 78: 10; 95: 489) handles not carefully applied.

Parallels - Beer Sheva II (Beer Sheva I, Pl. 57:) Megiddo & Jemmeh Gezer VB/VA (Gezer III, Pl. 23:5)

**New Type** - similar to Types 6 and 11
T - 488. (Lachish III Pl.78:7)

Parallels- Tell Beit Mirsim A2 (TBM I, Pls. 52: 14; 53: 5)

**Type 7 Holemouth** (large ovoid-shaped, very wide mouth)
 Widest diameter at or below mid-section: body line drawn up directly from small ring base to rim; most have no shoulder; forming lines on upper section give appearance of shallow grooves: plain flat, flanged rim folded outward, flattened forming horizontal rectangular section. with external lop, four handles, attached at or just below rim angled down to body, triangular section, incipient ribbing.

Tufnell’s class S10: handles attached on or just below a plain or ribbed, flanged rim. Flat ring base.
T - 490.
T - 492 (Pl. 78:13) ware is pink or brown with some grits, fired hard, and on a few examples there is a buff or greenish slip.
T - 499
Parallels - Tell Beit Mirsim A2 (TBM III, Pl.13 1,2,4); Beer Sheva II (Beer Sheva II Pls. 58:35, 36: 65: 1-4, 7); Arad X (BASOR 254, p. 14, fig. 13: 3); IX (BASOR 254, p. 18, fig. 19: 3); VIII (BASOR 254, p. 21, fig. 22: 21); Tel Eton I and II (Tel Aviv 12, p. 69, fig. 2: 9; p. 7: 9, 10).

Tel Halif: J8.50/D.#50; G8.49/C.#1; H8.22/A.#1; L8.45/D#1; F7.15/A.#1; F7.46/C.#1; H8.2.#1; L8.45/D#1; F7.15/A.#1; F&.46/C.#1; F8.47/D.#1; H8.2.#1; K8.57/C.#1

subtype 7b

Wider with 7 handles
Parallels - Beer Sheva II (Beer Sheva I, Pl. 76:)

**Type 8** Holemouth (long, small, cylindrical, narrow mouth)

Body line drawn up directly from either pointed or rounded base to rim: no shoulder body line usually vertical, but sometimes slightly rounded with widest diameter at mid-section, but also sometimes slightly inclined inwards with widest diameter at rim: no handles: rim corrugated on its upper surface or smooth, small orifice.

Tufnell’s class S12: jars with flanged and ribbed rim, and rnd base; ware same as type 9 very “chunky.”
T - 392, 546, 549, 649, 550,551

Parallels - Beer Sheva I (BSI. Pl. 58: 17- 22); Tell Beit Mirisim A2 (TBM I, Pl. 52:1. 6); Beth Shemesh Iic (AS IV, Pl. LXV: 31); Tell en-Nasbeth (TN II, Pl. 23: 384; 66: 1492).

Tel Halif: G7.45.#1; K8?

**Type 9** Holemouth (short or long, small, cylindrical, wide mouth) same as type 8 but with plain flanged rim and usually with a wider orifice.

Tufnell’s class S11: jars with plain flanged rim and rounded base: The ware is coarse pink, brown or buff, with a good proportion of grits, medium fired. Sometimes a buff slip. The walls and rims of the jars are thick and heavy in marked contrast to those of S8 (my type 7)
T - 391 level III (Lachish III. Pl.78: 14), 392, 548.

Parallels - Beer Sheva II (BSI. Pl. 78: 14)

Tel Halif: none
Type 10  Spouted jar three-handle. Sup-like spout in place of fourth handle usually appears in ovoid shape with well rounded shoulder and ring base; tall neck inclined inwards; rim thickened in haverhead shape with rounded edges, oblong in section; three handles grooved spout rim attached below vessel neck and at vessel rim in place of fourth handle.

Tufnell's class JS: made of heavy pink ware.
T - 356, 373

Parallels - Beer Sheva II (Beer Sheva I Pls. 58: 30-32; 65:8); Tell Beit Mirsim A2 (TBM I Pls. 53: 1, 3, 54: 1; TBM III Pl. 15: 17); Tell Judeideh II (BM. Pl. 49: 3); Beth Shemesh IIC (AS IV, Pl. LXVII: 12; AS V p. 144); Tell en-Nasbeh latter half of main period (TN II Pl. 30: 527); Jericho (SW, p. 137, Fig. 144) (BASOR 245, p. 14, fig. 13: 5); str. VIII (BASOR 254, p. 20, fig. 22: 20).

Tel Halif: H8.24/C.#9

Type 11 Ovoid/oval-shaped

Short neck: widest diameter at or just below mid-point of body; tapered below mid point to a rounded, flat base (reminiscent of fat, squat sausage jar); short neck slightly inclined inwards; rim slightly thickened and rounded. Two widely looping handles attached at sharply carinated shoulder.

Tufnell's class S2: plain neck, angular shoulder, pear-shaped body. Ware = pink to red, medium to hard fire, fair proportion of grits
T- 469 (Lachish III Pl. 78:9) level III and continues into Level II (p.313)
T- 472 (Lachish Pl.78:3)

Parallels - Beer Sheva II (BS I, Pls. 57: 1-3); Tell Beit Mirsim A2 (TBM I, Pls 52: 14 53: 2); Tell Judeideh Burnt Layer, Stratum II (BM p. 102 and Pl. 49:1); Tell Jemmeh (CPP 46 P2).

Tel Halif: none

Type 12 Sack-shaped (everted rim, medium high neck)

Medium size: wide, rounded bottom; sides basically vertical straight; two handles attached at pronounced shoulder; neck inclined inwards; short, folded rim with exterior flange.

Tufnell’s class - no parallels

Parallels - Beer Sheva II (BS I, Pl. 57:5); Arad IX (BASOR 254, p. 18, fig. 19:2); Str. VIII (BASOR 254, p. 21, fig. 22: 18).
Tel Halif: G8. 49/D.#1?

**Type 13 Bell-shaped**
Widest diameter at base; high pronounced shoulder; short neck inclined inwards; bulbous. Rim thickened.

Tufnell’s class:

Parallels - Gezer VA-VB (Gezer III. Pl.23:4)

Tel Halif: none

**Type 14 Large Pithoi (no neck, long tapered body)**
Very long, large vessel. Widest diameter at shoulder; below shoulder a long tapering body; rounded-flat base; body inclined inwards above angled shoulder, holemouth- style mouth; rim thickened and everted inwards: two handles attached at shoulder and body. More common during earlier half of the 8th century.

Tufnell’s class miscellaneous
T- 466 Lachish level III (Lachish III. Pl. 94:466)

Parallels - Beer Sheva II (Beer Sheva I. Pl. 65:12); Tell en-Nasbeh (TN II, Pl. 5: 71); Beth Shemesh IIC (AS IV, Pl. LXV: 5); Arad str. IX (BASOR 254. Fig. 19:5); Tell ‘Eton I (Tel Aviv 12, p. 81 fig. 8:3).

Earlier examples: Kuntillet Adjrud

**Type 15 Bag-shaped (long, narrow)**
Long, narrow body; widest diameter near mid-point of vessel: rounded, slightly pointed base; pronounced shoulder; narrow mouth; simple rounded rim; two handles attached at angled shoulder and body; similar to sausage jar without the tapered body

Tufnell’s class no good parallel; perhaps T- 473

Parallels - Beer Sheva II (Beer Sheva I. Pl. 66:7)

Tel Halif: I7.48/B.#20; K8.90/B.#7 (or type 1)

**Type 16 Narrow-elongated jar**
Narrow, elongated body; widest point just below rounded shoulder; tapers toward bottom with slightly pointed base; short neck: no handles.
Tufnell's class: no good parallels

Parallels - Beer Sheva II (Beer Sheva Pl. 70:7)

**Type 17** Ovoid (with narrowed, slightly pointed base)
Ovoid body; widest diameter at shoulder; tapered bottom with slightly pointed base; pronounced shoulder; narrow neck slightly inclined inwards; rim slightly thickened or simple rounded; rim tow handles attached to angled shoulder and body.

Tufnells class S4: Plain collar neck, curved shoulder, ovoid body (p 314).*
T - 467 level III (Lachish III, Pl. 78:2)

Parallels - Beer Sheva II (Beer Sheva I, Pl 57: 12-16); Tell Beit Mirsim Stratum A2 (TBM I, Pl. 53: 4); Arad str X (BASOR 254, p. 14, fig. 13:1.

Tel Halif: F7 103. #1; G7. 63/D. #1; H8 (NO NUMBER); H8. 25/B. #5; H8.29/A. #3; I7.49/B: J8.52/B. #24; J8.80/D. #4: J8.83/B. #12

**Jugs**

**Type 20** Globular-shaped (wide neck)
Globular body with widest diameter at mid-section: slightly tapered towards base; ring or flat base; one handle attached from rim to shoulder; rim trefoiled or pinched with spout effect; high neck either slightly inclined inwards or in a vertical stance; rim inclined on same angle as neck, either thickened and grooved, cyma-shaped, or rounded upwards and finger pressed, forming a lower flange separating rim from neck.

Tufnell's class J3: jug with flat base and pinched mouth. Majority pink, buff or brown ware fired medium to hard: some with buff or pink slip.
T- 217 - 219, 224, 226 - 228; Tombs 1002 and 106 (Lachish III, Pls. 73: 16; 75: 29; 85: 217- 219, 224, 226-228).

Parallels - Tell Beer Sheva II (BS I, Pl. 68: 18, 19); Tell Beit Mirsim (TBM I, Pl. 58: l. 4-9; TBM III, Pl. 14: 1-6); Tell en-Nasbeh (STTN, Pl. XVII: 1387); TN I, p. 99; TN II, Pls. 31: 544; 32: 566); Jericho Batash III (Timnah, p. 134, fig.7 .15

Tel Halif: F7.46/A. #3; J8.50/C. #13
Type 21  Globular-shaped or ovoid (narrow neck)
Globular body with widest diameter at or slightly above mid-point, tapered toward the base; ring or flat base; one handle attached from rim to shoulder; high, narrow neck, inclined inwards; trefoiled mouth (pinched with spout effect); rim cyma-shaped, vertical stance.

Tufnell's class J.6: Jugs with a flat base and narrow neck, plain or trefoil mouth.

T- 231, 251 (Pl. 72:15) - but Tufnell has this form (251) much earlier
Parallels - Tell Beit Mirsim A2 (TBM III, Pl. 16: 9); Arad VIII (BASOR 254, fig. 22:9) mid-late 8th - Gezer III (Pl. 19: 2, 5, 6)
Tel Halif: G8.22/A. #34; H7.28/C. #7; K8.95/A. #1

Type 22  Squat (mug-jug)
Squat, globular body with widest diameter either at mid-section or immediately above rounded base; one handle attached at rim and shoulder; short-medium neck slightly inclined inwards. Rim cyma shaped or simple rounded.

Tufnell's class J4: jugs with type at Lachish (p. 288). Majority have a pink body, medium fired, without slip or burnish.
T - 170-172, 174, 176-182, 188 (Lachish III, Pls. 74: 9, 10, 75:20, 21: 76:6, 7, 8; 77:9, 20).

Tel Halif: K8.76.4; L8.17. #8

Type 23  Squat (larger body, taller neck)
Body globular, squat or slightly oblong with widest diameter immediately above rounded base or at mid-point; body slightly larger than of Type 22; one handle attached at rim and shoulder; long neck; simple or inverted slightly inwards thickened rim internally and externally thickened.

Tufnell's class J5. Red hue. some very small grits, medium fired (some soft)
T- 173, 183-187; 189-191, 196. Tomb 1002(Lachish III, Pls. 74: 12-14; 75:23, 24); Tufnell does not really distinguish between types based on size, this group is larger in size than the previous Type 22. Her distinction is based on plain rim vs. molded with interior and/or exterior flange.
Parallels - Tell Beit Mirsim A2 (TBM I, Pl. 57:1, 5, 8-13; TBM III, Pl. 17:8, 10, 12, 14); Beer Sheva II (Beer Sheva I, Pls. 62: 105-107; 64: 12, 13); Jericho strata V-III SW, Pl. 38: D, 3); Beth Shemesh Ain Shems Tomb I, lib (APEF II, Pl. XXII: 18; Pl. LXVII: 16); Ez-Zahiriyye (QDAP IV, Pl. LXII); Tell Megiddo V (M. I, Pl. 7: 167) Arad X (BASOR 254, p. fig. 12:10); str. VIII (BASOR 254, p. fig. 22:11)

Tel Halif: F8.10./#1: G8.47/C. #1: H7.28/D. #1: K8.58/A.#1: L8.34.#70: L8.58/D.#21

Type 24 Globular-shaped (two handles)
Widest diameter at mid-section, rounded shoulder; flat ring base; high neck inclined inwards, rim thickened and grooved forming a lower flange.

Decanters

Type 30 Globular-shaped (vertical orientation)
widest diameter at mid-section; keeled shoulder; convex ring base; funnel-shaped, ridged neck; splayed thickened rim; handle usually beveled and attached at neck ridge; open slipped and burnished.

A. Large
Tufnell’s class. J.8: Jugs with narrow neck, handle to ridge, round or drop-shaped body. Pink or brown ware, medium fired, dark red or brown slip, vertically hand-burnished.
T - 273

Parallels - Beer Sheva II (Beer Sheva I, Pl. 62: 99); Tell Beit Mirsim A2 (TBM III. Pl.59:2)

Tel Halif: I7.52/C; J8.53/A.#72

B. Medium/Small
Tufnell’s class J.8: Hard pink paste; some grits; very unevenly fired, so that the surface varied in color from cream to deep red; body usually horizontally wheel burnished with or without a slip and the neck is finished in vertical strokes (Tufnell, 1953: 292).
T - 274, 275: 279-281 Level III (Lachish III. Pls. 75: 33; 77: 10).

Parallels - Beer Sheva II (Beer Sheva I, Pl. 62: 100-104); Tell Beit Mirsim stratum (TBM I. Pl. 59: 1, 3, 5); Tell en-Nasbeh (TN II. Pl. 39: 735, 737); Beth Shemesh (Ain Shems tombs 2-8) (APEF II, POLS, XXXVII: 14?; XLII: 14. 18; XLIV: 10
Amphoriskoi

Type 40 Oval-shaped (high neck)
Body oval/shaped tapering into pointed base; pronounced angular shoulder downwards; may have either round, stub, or knob base; high neck drawn upwards from shoulder and slightly inclined outwards; rim usually two rounded handles attached from upper shoulder downwards; may have either round, stub, or knob base; high neck drawn upwards from shoulder and slightly inclined outwards; rim simple and rounded outwards, forming slight thin lined flange; red slip, black decoration.

Tufnell’s class MP (miniature pitoi): Pink, buff, or brown, with some grits, fired soft to medium. A pink or red slip is usual and is sometimes finish with a vertical burnish: Traces of painted bands of red, or white are also seen. (Tufnell, 1953: 306)
T - 424-28
Parallels - Beer Sheva II (BS I, Pls. 67: 1: 72: 17); Tell Beit Mirsim A2 (TBM I, Pls. 53: 9, 12; 54: 5-10; TBM III, Pl. 17: 16-19); Beth Shemesh (Ain Shems) IIC (AS IV, PILXVII: I); Tell en-Nasbeh (TN II, Pl. 27: 446); Tell ed-Judeideh II burnt layer (BM, p. 102 and Pl. 49:7). A glass one from Lachish (Amiran, 1963: 250 photo 253).
Tel Halif: F7. 112#1

Flasks

Type 45 Straight vertical neck; two handles
Usually spherical body shape; high neck in vertical stance set into horizontally made two-point of the neck, handles have incipient ribbing; rim slightly bulbous sometimes exterior ribbing, thickened or folded; red slip (Gitin, 1990: 55).

Tufnell’s class PF
T - 429-32; 434-5. Level III (Lachish III, Pls. 74: 29; 76: 13; 77: 12).
Parallels - Beer Sheva II (Beer Sheva I, Pl. 63: 129, 132); Beth Shemesh (Ain Shems) (AS IV, Pl. SLV: 17); Tell Beit Mirsim (TBM I, Pls. 70: 15; 71: 4-6; III. Pl. 16: 11, 12); Tell Halif: None from Field IV - neck and mouth F7

Tel Halif: none

Juglets

Type 50 Dipper (wide neck)

Usually cylindrical body-shape; one handle, either round or triangular in section, attached at rim and shoulder; wide neck either slightly curve outwards or slightly curved inwards; ware is pink to buff and vessels are often red and burnished. Probably earlier form.

Type 51 Dipper (narrow neck, shoulder)

Cylindrical body; widest diameter at mid-point of body, forming a pronounce shoulder narrow neck curved and inclined outwards; one handle attached at rim and shoulder; round mouth; everted moulded rim; pink ware; buff, light brown or red slip; vertical burnish.

Tufnell's class D.5a
T - 282, 284, 286. Tomb 1002 and level III (Lachish III. Pls. Pls. 74:24; 76:9; 88:282, 291)

Parallels - Beer Sheva II (Beer Sheva I, Pl. 62: 115, 116); Tell Beit Mirsim A2 (TBM I. Pl. 68: 43; 69:24, 28; TBM III, Pls. 17:1, 5; 18: 17, 28, 29); Beth Shemesh (AS IV, Pl. XLIV: 35); Jericho tomb Whl (Jericho II, Fig. 258: 18-19, 20); Gezer tombs 28, 32, (Gezer III [PEF], Pls. LXXIII: 15; LXXVI: 16, 17; CIII: 10); Gezer IV (Gezer III. Pl. 19: 11, 14); Arad VIII (BASOR 254, fig. 22: 13)

Tel Halif: F7.59. #1

Type 52 Dipper (narrow neck, no shoulder)

to baggy body; gently curved/rounded shoulder or none at all; almost pointed; round mouth vertical neck; thickened rim. slight interior flange one handle attached to rim and below neck.

Tufnell’s class D.3 and D.4b
T - 283, 285, 293. Level III (Lachish III. Pl. 73: 8)

Parallels - Beer Sheva II (Beer Sheva I, Pl. 62: 117-119); Tell Beit Mirsim A2(TBM I. Pls. 68: 40. 44. 45. 47: 69: 23. 26. 30; TBM III. Pls. 17: 2-4; 18: 20-
Type 53 Piriform (wide neck)
Somewhat pear-shaped body with widest diameter below mid-point; no shoulder; wide neck vertical stance; rim simple and rounded; one handle, round in section, attached at rim and body just below neck.

no examples from Lachish

Parallels- Beer Sheva II (Beer Sheva I, Pls. 64: 8; 68: 15); Tell Beit Mirsim A2 (TBM I, Pl. 69: 2.5).

Tel Halif: G7.46/B. #1; K8.86. #1

Type 53A Piriform (tall neck, high looping handle)
Pear-shaped or ovoid body with widest diameter just below its rounded shoulder; body tapers inwards; base slightly pointed; tall, wide neck slightly inclined outwards; round or slightly pinched mouth; simple rounded rim; high looping handle attached at rim and shoulder.

Tufnell’s class D.2b: rounded or pinched mouth, handle curving above rim. T - 303-305

Parallels - Beer Sheva II (Beer Sheva I, Pl. 72:20); Tell Beit Mirsim A2 (TBM I, Pl. 68: 34).

Tel Halif: none

Type 54 Piriform (narrow neck)
Pear-shaped body with widest body diameter below mid-point; narrow, slightly broadened, slightly everted neck, a broad, pronounced shoulder; rim slightly thickened or simple rounded; stubbed base; rounded handle attached to rim and shoulder.

Tufnell’s class D.8: handles affixed to rim, squat body. T - 310-313; 319-320 level III (Lachish III, Pls. 75:35. 36; 76:27;77: 11).

Parallels - Beer Sheva II (BS I, Pls. 62: 14-18; 66: 120-125); Tell Beit Mirsim A2 (TBM III, Pl. 18: 10-15); Samaria Period IV (SS III, Fig. 10: 24); Jericho (SW, Pl. 38: D, 5); Arad X (BASOR 254, fig.12: 15; str. IX (BASOR 254, fig. 18:11); str. VIII BASOR 254, fig. 22:14).
Tel Halif: I7.50/C. #5; J8.52/A.#5

Type 55 Piriform (squat)
Squat body widest at mid-point; long neck inclined outwards, plain rounded rim; one rounded handle attached to neck and just above widest point on the body; base rounded, slightly pointed; usually black (sometimes red) with vertical burnish.

Tufnell’s class D.8: Handles affixed to neck, slightly drop-shaped body. Pinkish-buff or grey to black paste, soft fired, and many of them have lost their surface, exposing a few large grits. Vertical burnish on a black slip. Over 100 vessels of type 309 are from ed-Duweir. Vessel well discussed by Thorley and Kelso (TBM I paradigm 125).

Parallels - Beer Sheva II (Beer Sheva I, Pl. 62: 126-128; 68:20; 72:21-22); Beth (Ain Shems tomb I) (APEF II, Pl. XXIV: 13) Tomb 14, Stratum II c (AS IV. Pl. LXVIII:4); ez-Zahiriyye (QDAP IV, Pl. LXI: 2, 6); Tell ej-Judeideh burnt layer. (BM. Pl. 53:20); Megiddo strata IV-I (M.I, Pl. 2: 49-56); Tell en-Nasbeh tombs 5 and 3 (STTN, Pls. XVII: 1245; XV: 1149, 1152 respectively); Arad X (BASOR 254, fig.12: 13) str. IX BASOR 254, fig. 18: 12).

Tel Halif: G849.#1

Type 56 Cypro-Phoenician (black-on-red ware)
Several different styles of well made small juglets; small usually bulbous body; long, flaring neck with one or two handles attached to neck and upper body; body and neck painted with bands and/or concentric circles in black and red paint. Includes Bichrome, White Painted, Black-on-Red ware - well levigated: no core

Tufnell’s class D.6a: Cypriote or Cypro-Phoenician
T- 336-339 level III (Lachish III, Pls. 36:62. 64; 73: 5. 6)


Tel Halif: none

Type 57 Juglet with two handles
Ovoid body; widest diameter at shoulder tapering downwards to a flat base; tall neck: very small loop handles attached neck and high on the shoulder.

Tufnell’s class
357

T - 410

Parallels: Beer Sheva II (Beer Sheva I, Pl. 69: 18: 71:5)

Tel Halif: none

Type 58 Miscellaneous
Large juglet: Beer Sheva II (Beer Sheva I, Pl. 69:5)

Tel Halif: K8.36.#17

Bolws

*Tufnell’s class B.13 basically represents most of the bowls of the 8th-7th centuries B.C.E.

Type 60 Round-sided (deep)
Ring or disk base; curving sides; rims usually referred to as folded, but could just as easily be molded or thickened; inverted thickened lip; often externally flanged; red slip common but also examples without; usually interior wheel burnish turned over the rim.

Tufnell’s class B.13; Round bowl: externally flanged rim “...greater number are pink, often with a grey or black core, and there are a few buff and brown examples. Grits are rather rare. The firing is evenly divided between hared medium specimens, with an occasional soft one. A red, pink or brown slip is often found, but perhaps a greenish-buff surface is most common. The characteristic finish to many examples is a close spiral burnish inside.” (Tufnell, 1953: 277).

A. Large (diameter greater than 25 cm)
T- 644

Parallels - Tell Beit Mirsim A2 (TBM I. Pl. 61: 15; TBM III. Pls. 20: 2: 21: 1-3: 22: 5. 9. 10. 14); Beer Sheva II (Beer Sheva I. Pls. 59: 60-62; 60: 72); Gezer VI (Gezer III. Pl. 27: 18).

Tel Halif: G8.49/A. #2

B. Medium (diameter 15 - 25 cm)
T- 81, 82, 84, 638-640
Parallels - Beer Sheva II (Beer Sheva I, Pl. 72:10); Tell Beit Mirsim A2 (TBM I, Pls. 63: 3, 4; 64.1; TBM III, Pls. 21: 9; 23: 4-6, 8-12); Tell Jemmeh Level X Gerar, Pl. L: 21v); Samaria Period VII (unpublished; see Tufnell, 1953: 279); Gezer VI (Gezer III, Pl. 19: 29); Tel ‘Eton I (Tel Aviv 12, p. 77, fig. 6:6).

Tel Halif: J8.52/C. #9; J8.53/B. #12; L9.9. #9

C. Small (diameter less than 15cm) usually simple rounded rim but also folded. T - 15.626

Parallels - Beer Sheva II (Beer Sheva I, Pl. 69: 10); Tell Mirsim A2 (TBM III, Pls. 21: 9; 26: 70; Gezer stratum VI (Gezer III, Pl. 20: 1.2).

Tel Halif: L9.9.#7

**Type 61** Round-sided (with handles)
Usually large: body has curved sides but sometimes slightly carinated about 2/3 of the way up; widest diameter at rim; ring base; folded or thickened rim; two to four handles to rim and body; red slip; interior wheel burnish up and over rim; also without burnish.

Tufnell’s class B.13
T - 121.652

Parallels - Beer Sheva II (Beer Sheva I, Pl. 60: 73-75); Tell Beit Mirsim A@ (TBM III, Pl. 20: 13-18); Gezer VI (Gezer III, Pl. 20: 20).

Tel Halif: I7.53/B.#2; K8.57.#54; L8/K8.44.#2

**Type 62** Round-sided (upper 1/4 of sides and rim curved inwards)
Usually medium size; curved sides although some are carinated where sides start to curve inwards; widest diameter at mid-point; rim simple and rounded or slightly thickened; interior wheel burnish.

Tufnell’s class
T - 129(?)

Parallels - Beer Sheva II (Beer Sheva I, Pls. 59: 37; 72:5); Tell Beit Mirsim A2 (TBM III, Pl. 20: 3).

Tel Halif: J8.53/D.#99
**Type 63** Straight-sided (deep)

Small-medium size; thin-walled, straight sides and inclined outwards; disk or no base; rim simple rounded; red slip; interior wheel burnish.

Tufnell's class B.12
T- 16, 576: level III (Lachish III, Pl. 75: 2)

Parallels - Beer Sheva II (Beer Sheva I, Pls. 59: 44; 65: 9; 69:11; 12; 72: 1); Tell Beit Mirsim A2 (TBM I, Pl. 64: 18; TBM III, Pl. 25: 2. 5-8, 10); Tell en-Nasbeth (TN II, Pl. 54: 1215. 1217; STTN, Pl. XIV: 1166 - Tomb 3).

**Type 64** Straight-sided (medium depth)

Slightly more shallow than Type 63; thin walled, straight sided; small disc or flat base; rim simple rounded or rarely thickened creating interior flange; wheel burnished; brown paste; sometimes red slipped.

Tufnell's class B.12
T- 45. 572, 573

Parallels - Beer Sheva II (Beer Sheva I, Pls. 59: 39-43, 45; 68: 11, 12; 69: 8, 9); Tell Beit Mirsim A2 (TBM I, Pls. 65: 29; 67: 2; TBM III, Pls. 24: 16; 25: 4, 9, 11-16); Arad IX (BASOR 254, p. 17, fig. 18: 2); str. VIII (BASOR 254, p. 20, fig. 22:3)

Tel Halif: F7.46/D./31; G8.20/#1; G8.22/B./58: G8.47/C.#2

**Type 65** Straight-sided (shallow)

Similar to Type 63 but much shallower. Small-medium size: slightly rounded base; wide bottom, very sharply angled sides, almost vertical; sides thin/walled; plain rounded rim; interior wheel burnish; red or plain slip.

Tufnell's class B.6: rounded bottom bowl
T- 89-91, 93

Parallels - Tell Beit Mirsim A2 (TBM III, Pl. 25: 1, 3); Tell en-Nasbeh tomb 5(TN II. 53: 1175; STTN, Pls. XXI: 1369: XXIII: X191); Tell Jemmeh (Gerar, Pl. XLIX: 12w, 13h, 13k, 16u); Megiddo (M. I, Pl. 28: 93A, 93B and p. 169); Gezer VIA. VB/VB (Gezer III, Pl. 20: 4: 24:1); Tel 'Eton I (Tel Aviv 12, p. 75, fig. 5:1)

Tel Halif:
Type 66 Shallow bowl/platter
Small-medium size; very shallow, widest diameter at rim; ring or disc base; straight (or slightly rounded) inclined outwards widely; plain semi-squared rim, or sometimes beveled curved outward; plain no finish or red slip; interior wheel burnish.

Tufnell's class B.11
T- 59-64, 66, 558-560: level III (Lachish III. Pls. 74: 5; 76: 1; 80: 63).

Parallels - Beer Sheva II (Beer Sheva I, Pl. 66: 9); Tell Beit Mirsim A2 (TBM III. Pls. 21: 4-6; 71: 2); Jericho (SW. Pl. 38: D. 12); Gezer VIA (GEZER III, Pl. 20: 23); Arad IX (BASOR 254, p.17, fig. 18: 1); str. VII (BASOR 254, p. 20, fig. 22: 1).

Tel Halif: F7.15/B.##; G6.25.#7; J8.52/A#81; L8.24.#1

Type 67 Carinated (large)
Large, deep bowl. Diameter greater than 25 cm; ring or disc base; body rounded for 2/3 of the vessel's height to carination; top 1/3 of body straight to folded rim with exterior flange; red slip; interior wheel burnish.

Tufnell's class B.13: Bowls with external flange
T - 86


Tel Halif: none

Type 68 Carinated (medium)
15-25 cm; usually a ring base but a few examples with disc base also appear; body slightly rounded 2/3 of vessel height to carination; top 1/3 of body straight and almost vertical to folded rim with exterior flange; red slip; interior wheel burnish.

Tufnell's class B.13: bowls with externally flanged rims
T- 48, 73. 75, 627. 628; level III (Lachish III. Pl. 75: 10)
T- 109 (with handles); level III (Lachish III. Pl. 77: 17)

Parallels - Beer Sheva II (Beer Sheva I, Pls. 59: 64; 69: 6, 7; 72: 6, 7); Tell Beit Mirsim A2 TBM III, Pls. 20: 1, 4-6: 22: 3, 4, 6, 8, 11: 23: 2, 14); Gezer VIA (Gezer III, Pl. 20: 12, 17); Tell en-Nasbeh (TN II. Pl. 58: 1324; STTN, Pl. XIV: 1160 - Tomb 3); Tell el- Ful (AASOR IV, Pl. 29:19); Arad X (BASOR 254, fig.
12:6) str. IX (BASOR 254: fig. 18: 3) with handles - Tell Beit Mirsim A2 (TBM III, Pls. 20: 13, 14, 17); Tel 'Eton I (Tel Aviv 12, p. 79, fig. 7: 4).


Type 69 Carinated (small)
Diameter less than 18 cm; disc base; sides straight and inclined outward ½ of vessel to carination; rim either thickened/folded and turned outward or plain and rounded; red slip; interior/partial exterior wheel burnished. This group very similar to Type 65 except for the rim, which is often more elaborate in this type.

Tufnell's class B.12: straight sided, thin walled bowls

Parallels - Tell Beit Mirsim A2 (TBM I, Pl. 64: 9, 16; TBM III, Pls. 21: 11-14: 24: 1-5, 7, 10, 13, 21-24: 25: 14, 15, 17-27); Beer Sheva II (Beer Sheva I, P. 59: 54, 55); Beth Shemesh Strip 8 west (AS IV, Pl. LXIII: 23, 26 - Unstratified rim Strip 8 west (AS IV, Pl. LXIII: 23, 26 - Unstratified from Strip 8 west); Tell en-Nasbeh (TN II, Pl. 54: 1215); Tel 'Eton II (Tel Aviv 12, p. 67, fig. 1: 2); Tell Batash III (Timnah, p. 134, fig. 7.15).

Tel Halif: none

Type 70 Sharp carination (Cynma-shaped small-medium)
Diameter less than 20 cm; sides straight and inclined outward or slightly rounded ½ of vessel height to carination; almost cyma-shape from carination to vessel rim; disc base rim either simply rounded or thickened and rounded; red slip; interior wheel burnish.

Tufnell's class B.5: Bowls with “cyma” profile, some internally flanged.
T-41, 42, 55, 56: level III (Lachish III, Pls. 72: 1; 73: 21)

Parallels - Tell Beit Mirsim A2 (TBM III, Pl. 24: 12); Sahab (QDAP XIII, p. 97, No. 8); Tell en-Nasbeh (TN II, Pl. 54: 1192; STTN, Pl. XXIII: X 189 - tomb 5); Samaria Period I (SS III, Fig. 1:1) Tell Batash III (Timnah, p.134, fig. 7.15).

Tel Halif: H8.3.#1; J8.81/C.#6

Type 71 Bell-shaped
Medium size: widest diameter at external point of rim; rounded point of inflection close to midsection; upper side extended to almost vertical stance. Simple rounded rim.
Tufnell’s class: no parallels

Parallels - Gezer VIB (Gezer III. Pl. 14: 17) this is 9th B.C.E.

Tel Halif: G7, 65.275

Type 72 Ledge-rimmed bowls
Small bowls with sharply everted, extended horizontal rim

Parallels - Tell Beit Mirsim A2 (TBM I, Pls. 65: 23; 66: 7); Arad VIII (BASOR 254, p. 20, fig. 22: 2).

Tel Halif: none

Kraters

Type 80 Waisted (everted rim)
Tall outsized form; body curved with widest diameter well above mid-section; two handles attached at rim and just above widest point on body; tapers to a ring base; rim sharply everted with squared section forming external flange.

Tufnell’s class B.13: deep bodied vessels, flared necks.
T- 123, 128

Parallels: Beer Sheva II (Beer Sheva I, Pl. 60: 77); Tell Beit Mirsim A2 (TBM III, Pl. 19: 2?).

Tel Halif: none

Type 81 Amphora (vertical handles)
Amphora style krater with globular (widest diameter at mid-section) or tapered (widest point below shoulder) body; medium-large size; pronounced shoulder on tapered variety; ring base; high vertical neck with either plain rim simply rounded or hammer-shaped folded rim with interior and exterior flange; usually two handles - placed in center of body on globular form or from rim to shoulder on tapered form.

Tufnell’s class B. 13: Bowls with externally flanged rim and handles.
T- 403, 405, 688?

Parallels: Beer Sheva II (Beer Sheva I, Pls. 70: 20; 72: 14)
Tel Halif: none

Type 82 Amphora (horizontal loop handles)
Amphora style krater with globular body; widest diameter at mid-section; ring base; high neck with vertical stance thickened, flanged rim; two handles attached horizontally above mid-point of body.

Tufnell’s class - none

Parallels - Beer Sheva II (Beer Sheva I, Pl. 69: 3)

Tel Halif: none

Type 84 Bowl-like, carinated (shallow)
Very large bowl-like krater; body slightly rounded or straight and inverted outward to carination; carination located just below rim; widest diameter at carination; rim folded and turned inward, slight exterior flange; red to pink slip; interior wheel burnish up over rim and over rim.

Tufnell’s Class B. 13 Bowls with externally flanged rims
T- 120. 122 level III (Lachish III, Pl. 77: 2)

Parallels - Beer Sheva II (Beer Sheva I, Pls. 60: 76: 68: 14; 69: 14; 72: 12, 13); Tell Beit Mirsim A2 (TBM I, Pl. 60: 1. 2, 5, 7-9; TBM III, Pl. 20: 8, 10, 11); Arad VIII (BASOR 254, p. 20, fig. 22: 5).

Tel Halif: F7.61.#1; G7.46/B.#1; G7.61/B.#1; I7.51/A.#1; K8/L8.37.#17

Type 85 Bowl-like, carinated (deep)
Very large bowl-like krater; similar to Type 84 but slightly deeper ans carinated more sharply; body almost straight and inverted outwards to carination; carination located just below rim; widest diameter at carination; ring base; rim folded and turned slightly inwards slight exterior flange; red to pink slip; wheel burnished interior, up and over rim.

Tufnell’s class D.13: Bowls with externally flanged rims
T- none of the deeper variety

Parallels - Beer Sheva II (Beer Sheva I, Pl. 69: 13); Tell Beit Mirsim A2(TBM I, Pl. 60: 3, 4, 6; TBM III, Pl. 20: 7, 12)

Tel Halif:
Type 86 Miscellaneous

Mortaria

Type 90 Mortaria
Thick shallow bowl of medium-large size; sides straight giving bowl triangular shape; widest diameter at rim; usually ring base; usually thickened rounded rim with several ridges outside and below rim; green to buff paste.

Cooking Pots

Type 95 Cooking pot (carinated)
Shallow type cooking vessel; widest diameter at carination in mid-point of body; straight or slightly curved upper side wall inclined sharply inwards; biconical body shape; rounded base; bulbous, thickened/folded rim with pronounced, grooved flange; two handles connected to rim and to body on top of carination.

Tufnell's class CP: shallow vessels with two handles, ridged and grooved rims

A. Large
T-441 Lachish level III (Lachish III, Pl. 93: 441)

Parallels - Beer Sheva II (Beer Sheva I, Pl. 70: 19); Tell Beit Mirsim stratum A2 (TBM I, Pl. 55: 4; TBM III, Pl. 19: 1, 2); Tell en-Nasbeh (TN II, Pl. 48: 1012); Beth Shemesh II (AV IV, Pl. LXIII: 36); Sahab (QDAP, p. 101, no. 67) Tell Batash III (Timnah, p. 134, fig. 7.15).

Tel Halif: F7.96/A#1

B. Medium
T-442, 444 level III (Lachish III, Pl. 74: 30).

Parallels - Beer Sheva II (Beer Sheva I, Pls. 66: 12; 68: 4; 70: 78-83); Tell Beit Mirsim A2 (TBM I, Pls. 55: 5; 56: 2; TBM III, Pl. 19: 3, 4); Sahab (QDAP XIII, 101: 67); Tell Sheykh Zuweiyid (Anthedon, Pl. 32D3/); Beth Shemesh (ASII. Pl. XXXVII: 90); Megiddo IV-I (M. I, Pl. 39:4); Samaria (S, p. 284, fig. 160: 7); Jericho (SW, Pl. 32: A. 10a); Arad IX (BASOR 254, fig. 18:5) str. VIII (BASOR 254, fig. 22:7)
Tel Halif: F7.96/C.#1; G8.50/C#1; K8.33.#12; K8/L.8.44.#1; L8.36.#1; L8.50.#69

C. Small (less than 15 cm)
T-445 level III (Lachish III Pl. 75: 42).

Parallels - Beer Sheva II (Beer Sheva I, Pls. 60: 10; 66: 84, 85); Tell Beit Mirsim A2 (TBN I, Pl. 55: 7).

Tel Halif: G8.48/A.#1

Type 96 Cooking pot (sharp carination at bottom)
Widest diameter at sharp carination immediately above a slightly rounded bottom; curving, upper side walls inclined inwards; very short neck inclined outwards; thickened/folded rim and pinched rim flange; two handles attached to rim and upper body.

Tufnell’s class CP: Shallow vessels with two handles, ridged and grooved rims.

A. Large (greater than 20cm diameter)
T-443

Parallels - Beer Sheva II (Beer Sheva I, Pls. 61: 87, 88; 66: 11); Tell Beit Mirsim A2 (TBM, Pl. 56: 3) Arad X (BASOR 254 p. 13 fig 12: 8).

Tel Halif: K8.101/D.#1

B. Medium (less than 20 cm diameter)
T - 443

Parallels - Beer Sheva II (BSI. Pl. 61: 86); Arad str. X (BASOR 254, fig. 12: 8) - rim on this vessel thicker and more squat than the other vessels of this kind.

Type 97 Cooking pot (globular)
Relatively large; rounded bottom; globular body with widest diameter a little below mid-point of body; very short neck inclined outwards; folded rim with pinched flange; 2 or 4 handles attached to rim and upper body.

Tufnell’s class CP
T - none Parallels represented

Parallels - Beer Sheva II (BSI. Pl. 68: 15)

Tel Halif: none
**Cooking Jugs**

**Type 100** Cooking jug (globular)

Body usually globular; curved side inclined inwards; short restricted neck; tall thin rim with simple rounded edge with a plain exterior or rilled several times down its exterior surface.

Tufnell’s class CP: deep bodied vessels with two handles and plain, rilled, or ridged necks: deep bodied vessels, flared necks; deep bodied vessels, straight necks.

A. Large (diameter greater than)

T - 449

Parallels - Beer Sheva II (BSI Pl. 61: 95, 96); Tell Beit Mirsim A2 (TBM III, Pl. 54: 1); Arad IX (BASOR 254, fig. 18:6).

Tel Halif: none

B. Medium (diameter greater than but less than)

T- 450, 453, 462

Parallels - Beer Sheva II (BSI Pls 60: 13 61: 93, 97); Tell Beit Mirsim A2 (TBM III, Pl. 54: 2); Beth Shemesh II (Beth Shemesh, p. 205: 132); Jericho (SW. Pl. 32: A. 10c); Tel 'Eton I (Tel Aviv 12, p. 75, fig. 5: 11).

Tel Halif: F8.20.#2; J8.53/D.#48

C. Small (diameter less than)

Some of the small cooking jugs of this type have a high, straight sided neck inclined outwards with a simple rounded rim curved inwards.

T- 446, 447, 451, 455, 458, 459 level III (Lachish III, Pls. 74: 31; 75: 44, 45; 77: 1. 30)

Parallels - Beer Sheva II (BSI Pls. 61: 90, 91, 92, 98: 66: 5); Tell Beit Mirsim A2 (TBM I, Pl. 56: 4; TBM III, Pls. 19: 5; 54: 3); Arad VIII (BASOR 254, fig. 22: 6).

Tel Halif: F7/B.#1

**Type 101** Cooking jug (carinated bottom)

Globular body with sharp carination immediately above slightly rounded base; curved sides incline inwards; short restricted neck; tall thin rim with simple rounded edge and ribbed or rilled several times down its exterior surface.
Tufnell class CP: deep vessels with two handles and plain, rilled or ridged necks.

A. Large (diameter greater than)
T- none of large size

B. Medium
T- 448, 454, 456

Parallels - Beer Sheva II (BSI Pl. 61: 95); Tell Beit Mirsim A2 (TBM I, Pl. 55: 3.6, 10-12; TBM III, Pls. 19: 6, 8-10) Tell el-Judeideh burnt layer (BM, pp. 105. 76, Pls. 21: 13; 54: 1).

C. Small (diameter less than)
Some of the small cooking jugs off this type have a high, straight sided neck inclined outwards with a simple rounded rim curved inwards.
T- 452, 457

Parallel’s - Beer Sheva II (BSI Pls 61: 89; 68: 6); Tell Beit Mirsim A2 (TBM III. Pl. 19: 7); Tell el-Judeideh burnt layer (BM, pp. 105, 76 and Pls. 21: 5; 54: 5).

Lamps

Type 105 Lamp (shallow: rounded base)
Shallow: open form; single spout, severely pinched; thin-medium lip; rounded base.

Tufnell’s class L.3: Lachish level III. tomb 1002 (Lachish III. Pl. 75: 14).
T-144

Parallels - Gezer VI (Gezer III. Pls. 19: 7; 23: 10).

Type 106 Lamp (deep: rounded base)
Deep: open form: single spout, severely pinched; thin-wide lip; rounded base.

Tufnell’s classes L.2, L.4, L.6
T- 146-48

Parallel’s - second half of 8th century BCE: Ashdod VIII (Ashdod II-III, Figs. 44: 1. 3); Lachish tomb 1002 (Lachish III. Pl. 83; 147); Samaria Period VI (SS III, Fig. 27: 1). 8th/7th cent. contexts: Beer Sheva II (BSI Pl. 64: 18); Lachish tomb 106 (Lachish III, Pls. 75: 15: 83: 146, 147, 148); Jericho WHI (Jericho II, Fig. 259: 1.
2); Sahab (QDAP XIII. p. 102, types 77-81).

**Type 107 Lamp (flat/footed base)**
Deep lamp: single spout, severely pinched; thin and wide lips; bottom now developed a short foot with flat disc base

Tufnell’s classes L.7, L.8, L.9
T- 149-152 Lachish level III (Lachish III. Pl. 75: 16-19).

Parallel’s Beer Sheva II (BSI Pls. 63: 135, 136; 64: 19-21; 66: 19); Tell Beit Mirsim A2 (TBM Im Pl. 70: 1-8; TBM III, Pl. 15: 5-10); Beth Shemesh IIc, tomb 14 (‘Ain Shems IV Pl. LXVII: 20, 23; XLVIII: 8, 12) Lachish tomb 106 (Lachish III, Pls. 75: 16, 17; 83: 153); Gibeon, Fig. 33: 7, 9, 10); Sahab (QDAP. p. 101, no. 74); Tell el-Fara (BP I, Pl. XL) Megiddo III (M. I, Pl. 37: 6, 7); Arad IX (BASOR 254, p. 17, fig 18: 13): str. VIII (BASOR 254,p. 21, fig. 22: 17); Tel ‘Eton II (Tell Aviv 12, p. 69, fig. 2: 7); Tel Batash III (Timnah, p. 134, fig. 7.15).

Tel Halif: F7.12/B.#1; F7.37.#10; F7.112.#2; G7.14.#10; I7.53/A.#1; I7.73/A.#1; J8.68.#6; K8.26; K8.26.#1; K8.77.#28

**Type 108 Lamp (pedestaled base, miniature)**
Usually small/miniature, deep lamp: single spout, pinched severely; medium width lips; bottom attached to high pedestaled base.

Tufnell’s class: no parallels

Parallels - Beer Sheva II ((Beer Sheva I, Pl. 71: 3); Tell Beit Mirsim A2 (TBM III, Pls. 32:2; 57: 2b).

**Type 109 Lamp (multiple spout)**

**Type 110 Lamp (miscellaneous)**

**Chalices**

**Type**
Strainers

Type 120 Strainers
Parallels - Beer Sheva II (Beer Sheva I, Pl. 63: 130)

Tel Halif: IV.F7.47/D.1A

Type 121 Funnel
Parallels-

Tel Halif: IV.F7.47/D.2

Stands

Type 125 Cylindrical

Tufnell’s class
T- 395-402

Parallels - Beer Sheva II (Beer Sheva I, Pl. 45: 19-22); Tell Beit Mirsim A2 (TBM III. Pl. 71: 71: 7-13); Tell’Eton I (Tel Aviv 12, p. 77, fig. 6: 12).

Type 126 Fenestrated

Tel Halif: IV.G8.49/D.2
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